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Koramic Building Chemicals Manufacturing

Corporate Profile

Adding new and innovative products to its product range needed by the construction sector, Koramic Building Chemicals today has a very broad solution portfolio. Product groups consist predominantly of technical products and mainly ceramic adhesive mortars, polyurethane and epoxy systems and thermal insulation solutions and continue to grow every passing day with new solutions.

While meeting the requirements of the construction industry with its sales anywhere in Turkey and 48 countries of the world, Koramic Building Chemicals is aware of the responsibility imposed by VitRA brand for developing its product portfolio, while paying attention to be the symbol of quality and innovation in the industry and documents this with national and international standards and awards taken.

History

Koramic Building Chemicals was established with 50-50% partnership of Koramic Building Products S.A., and Eczacıbaşı Group in 1998. Through the agreement executed in June 2011, 100% share of the company was transferred to Koramic Group, as a result of which it changes its commercial title as Koramic Building Chemicals Manufacturing.

The first production plant with the largest covered area of the sector and equipped with advanced technologies went into operation in 1999 in Bozüyük. In the same year, the first sales to the domestic market were realized with VitRA Fix branded products.

As of 2000, the product portfolio consisted of 5 different tile adhesives and 5 different joint grouts. The cornerstones of the product portfolio started to be formed with those products which were developed to be used for standard floor and wall tile applications. Again in the same year the first export sale was realized.

In 2005, parallel to the developments with respect to energy efficiency, VitRA Therm branded external thermal insulation composite systems were introduced to the market. VitRA Therm was awarded as the "best thermal insulation product" of 2005 thanks to its product technology and quality.

In 2007, Mersin production plant went into operation, and total annual production capacity increased to 160,000 tons. Thus, a stronger and more competitive position was achieved not only in the domestic market as well as in foreign markets, due to the production capacity and advantageous logistic locations of the facilities.

In 2008, export sales of VitRA Therm product group started.

By 2011, VitRA Fix and VitRA Therm products are applied trustfully in many building projects in 49 countries of the world, including Turkey,

Production Facilities

Bozüyük Factory

Bozüyük factory is build with advanced technologies, have the largest closed area in the sector and commenced production in 1999. Whole production process, from the input of raw material to the dispatching phases, is carried out with fully automatic machines controlled with computers.

Total area : 34.000 m²
Total closed area : 4.500 m²
Annual production capacity : 100.000 tons/year

Mersin Factory

Mersin factory commenced production in 2007. It provides great advantage to the company having major roles in domestic and international target markets, while ensuring a solid penetration to the markets. Factory's distance to Mersin Port, Adana and Gaziantep are 23 km, 75 km and 250 km, respectively. The factory has a flexible production line, where grey and white powder productions can be carried on simultaneously.

Total area : 7.500 m²
Total closed area : 2.100 m²
Annual production capacity : 60.000 tons/year



Blue Life

For our blue planet...



Blue Life

Blue Life is the production philosophy, design attitude and management outlook of all Eczacıbaşı Building Products Division brands including VitrA, Artema and VitrA Therm.

Blue Life means reducing the use of non-renewable resources in the production process.

Blue Life means making significant investments towards boosting eco-efficiency.

Blue Life means developing products that promote water and resource conservation at the end-user driven by a concern for the environment and for our future collective future.

Because we believe managing the future requires efficient management of our natural resources today.

And good design involves taking responsibility for resource conservation.



In **49** countries of the World...



VitrA Fix tiling and natural stone application solutions

- Adhesives*
- Grouting Materials*
- Performance Improving Primers and Additives*
- Surface Cleaning and Treatment Materials*
- Water Proofing Materials*
- Flooring Products*
- Sealants and Mastics*
- Repair Mortars and Restoration Plasters*

VitrA Fix epoxy and polyurethane system solutions

- Water Proofing Systems*
- Floor Coating Systems*
- Traffic Coating Systems*

VitrA Therm external thermal insulation composite system solutions

- Thermal Insulation Systems*
- Thermal, Sound and Fire Insulation Systems*

Right Product.
Right Solution.
High Performance.



Professional Support

Technical Support

*You can receive professional support and technical advice at all times about **VitrA Fix** products and solutions. We shall recommend you the most suitable **VitrA Fix** products and solutions based on your project details and your requirements. If you prefer to use **VitrA Fix** products, then we may visit your site to check aspects of application, or make on-site proposals for your problems at your request.*

Technical Seminars and Training Courses about Products

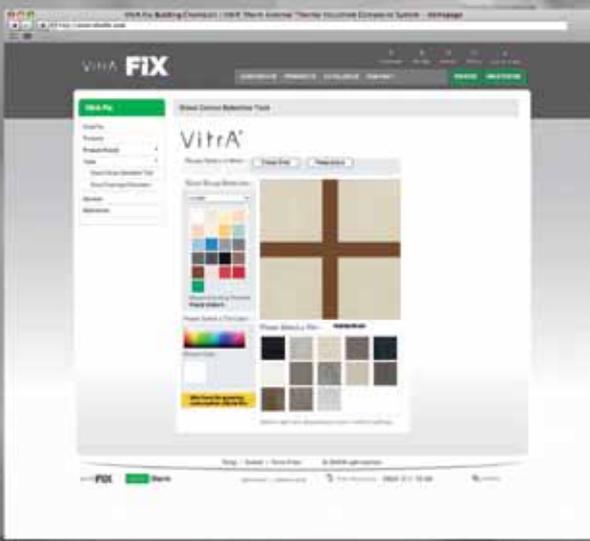
We attach importance to training courses about products and applications for the purpose of ensuring that our products are applied in a properly, and requirements and needs of the construction sector are met in more efficiently and effectively. We base our training courses on the principle of appropriate system @ appropriate application, and serve the construction sector at high standards.

You may make a request to us for one of these training courses that are tailored to your requirements.

- Product introduction meetings for contracting companies and architectural offices*
- Detailed product and application trainings for technical people*
- An applied training camp at our Bozüyük and Mersin factories for technical people and application teams*

http://www.vitratfix.com

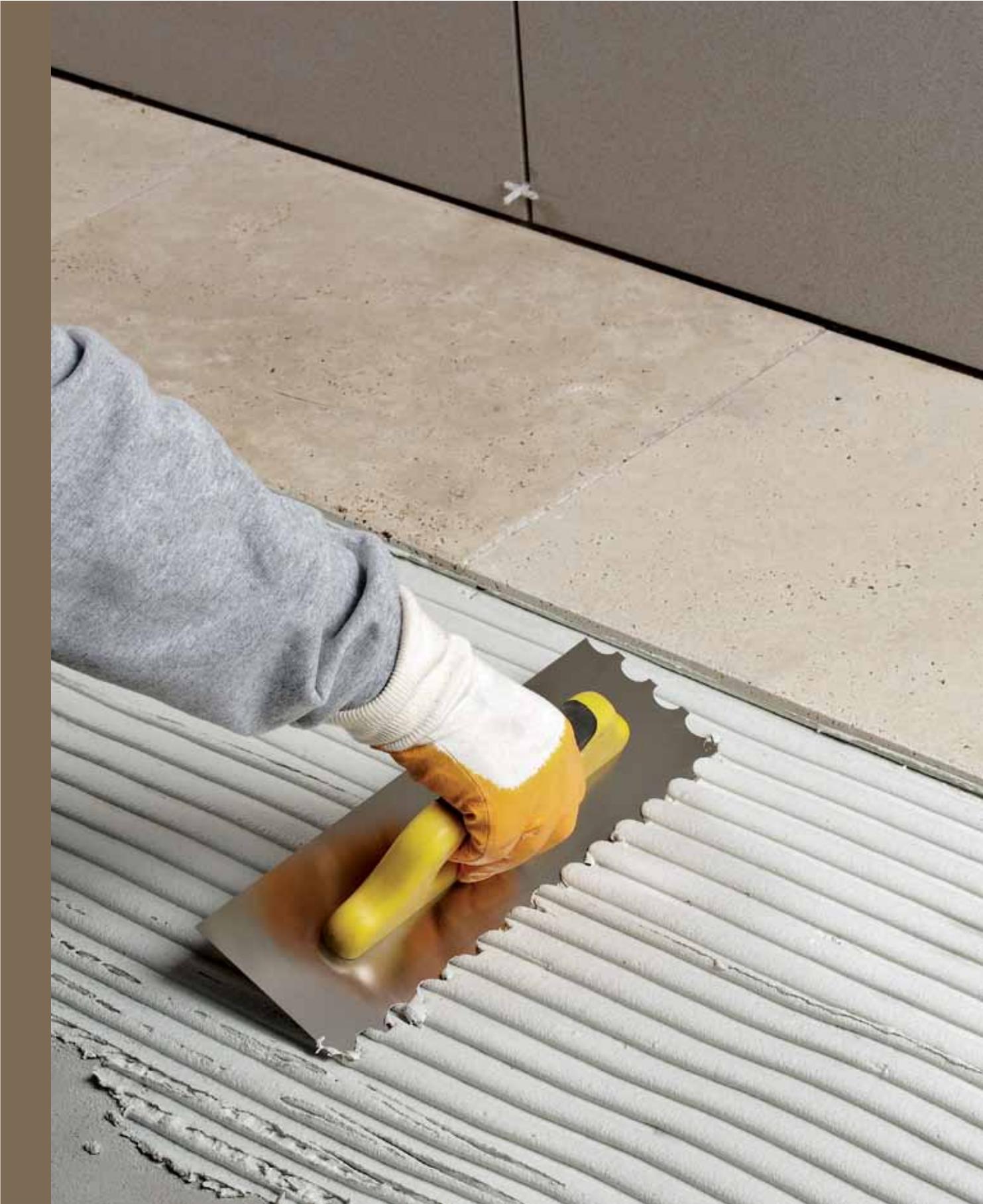
Vitra FIX



www.vitrafix.com

Web Site
www.vitrafix.com

Our renewed web site offers up to date information about our products and solutions. It is even more easier now to utilize the solution house tool, where you will find right product selection charts and visually supported technical specifications of various tiling applications. You will find all access information of our sales points, and interactive tools and digital materials supporting you in every technical detail.



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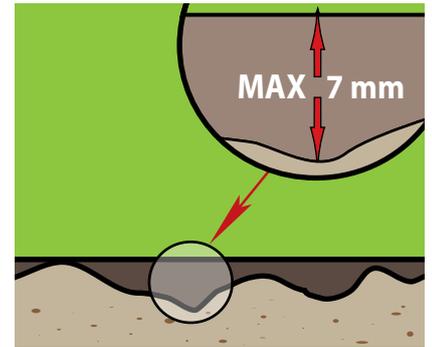


SUBSTRATE PREPARATION

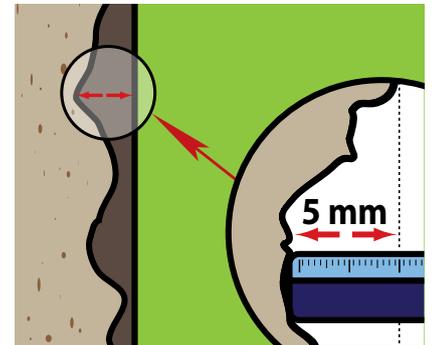
SUBSTRATE FLATNESS

The substrate should be flat for an accurate and easy tiling application.

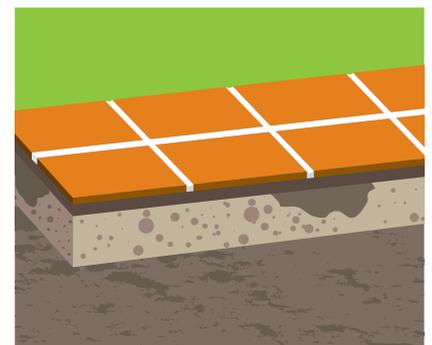
- The deepest point of the application surface in 2 m long straight gauge should not exceed 7 mm.



- The surface deviation is limited to 5 mm under 2 m long straight gauge for substrates of floors exposed to heavy loads and heavy pedestrian traffic, external facades, and pool shell screeds and walls.



- For larger deviations, the surface should be smoothed with either surface repairing and smoothing plasters or leveling materials.



- Tile adhesives are not leveling materials. Thus, it is improper to use them for substrate smoothing and leveling purposes.

SUBSTRATE STABILITY

Disbonding, cracking, covering deformation and etc. problems may arise at later stages of tiling or during servicing life of the tiled areas. The substrate should be stable in order to prevent problems originated from bonding failures of the adhesive on the substrate.

■ Hardness and resistance of the existing plaster or screed should be well checked. The surface hardness can be checked by scratching it with a pointed tool (i.e. hammer, screwdriver) superficially in random places of the substrate.

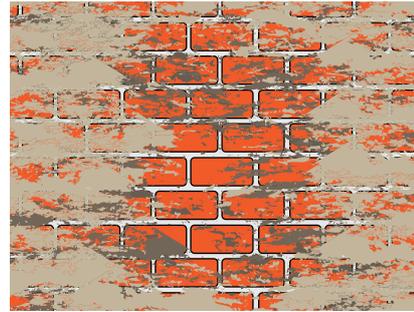
■ Loose and unstable surfaces should be removed until the sound and stable layer. Then, the substrate should be leveled with surface repairing and smoothening materials.

In case of an existing covering:

■ Loose and bloated existing paint should be removed mechanically. Notching or sanding the surface will provide suitable bonding adhesion of the adhesive.

■ Wooden floors and pannels must not move or flex when exposed to loading (stepped on or pressed), which will cause instability of the covering leading to disbonding and cracking problems. The loose boards or parts should be replaced, pannels laid on joists or battens should be reinforced and fixed to stabilize by anchoring every 30 cm max.

■ Adhesion and rigidity of the existing tile or PVC covering should be checked by tapping a hummer or scraper. Loose or poorly adhering covering should be removed and replaced by similar covering or the substrate should be reconstituted with a suitable repairing product.



SUBSTRATE PREPARATION

SUBSTRATE CLEANLINESS

The substrate should be clean for a proper bonding of the adhesive.

Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.

- It is recommended to wash and clean up the surface with pressurized water.

- Residues and stains on existing tiles can be cleaned by appropriate cleaning materials.

- Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.



PRIMING THE SUBSTRATE

Substrates with different formats may have different surface absorptivities (water permeability).

- Gypsum (board, pannel and plaster), wooden (board, pannel and OSB), cement (board, plaster and screed) based substrates have high surface absorptivity.

- Surface absorptivity for concrete substrate is very low, where glazed tiles or painted surfaces have almost any.

Surfaces with high absorptivity absorb the mixing water of the cementitious adhesive or other mortars very fast. Thus, the mortar loses out its mixing water and this will cause early but improper setting leading to weak adhesion and disbonding of the covering.

- To control surface absorptivity the surface should be wetted. If the surface absorbs the water fast (in 30-45 seconds), then the surface is segmented as high surface absorptive.

- Sealing with appropriate primers; the high absorptivity of surfaces should be reduced and balanced, where surface adhesion should be improved for impervious substrates with primers including thick fillings (thick fillings expand bonding surface)



When tiling during hot, windy and dry conditions, it is inevitable that the mortar will lose its mixing water very fast due to rapid evaporation. Prior to spreading the mortar on the substrate, wetting or damping will decrease substrate surface temperature reasonably. For better performance, the surface should be sealed with appropriate primers.

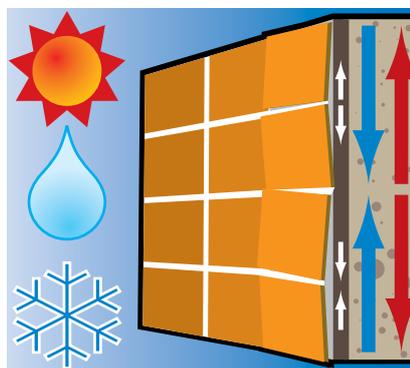
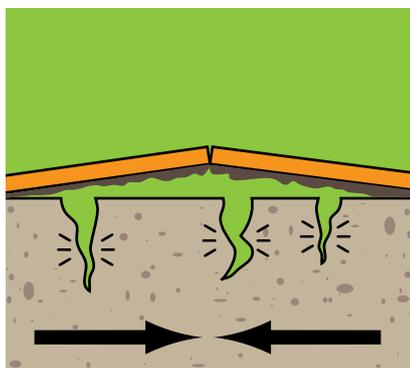
- Primers are liquid and can be applied easily on the surface with a roller or brush. The surface should be completely sealed in one or two coats, forming pinhole free film coat.



FRESH SUBSTRATES

It should not be tiled onto new screed, plaster or concrete. Leave fresh substrate for at least 6 weeks to fully set, before substrate repairing, surface smoothing and tiling.

- In external facade applications, the duration extends to minimum 3 months. Otherwise, mechanical and thermal movements (shrinkage, expansion and contraction) on the substrate arising during curing period may reinforce bonding problems.



SUBSTRATE PREPARATION



FLATTING OF THE DEFECTED SUBSTRATES

SUBSTRATE FLATNESS

The substrate and surface quality is essential for an accurate, easy and reliable tiling application. Uneven and unstable substrates should be repaired and smoothed prior to commencing tiling.

For proper bonding of the tile on the substrate with a full contact (for full spreading of the adhesive on tile back) performance, surface smoothness is essential.

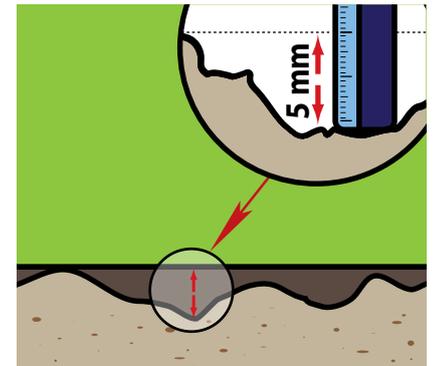
- The deepest point of the application surface in 2 m long straight gauge should not exceed 7 mm.
- The surface deviation is limited to 5 mm under 2 m long straight gauge for substrates of floors exposed to heavy loads and heavy pedestrian traffic, external facades, and pool shell screeds and walls.

- Loose and unstable surfaces should be removed until the sound and stable layer. Then, the substrate should be leveled with surface repairing and smoothing materials.

- Surfaces with high absorptivity absorb the mixing water of the cementitious adhesive mortars very fast. Thus, the mortar loses out its mixing water and this will cause early but improper setting leading to cracks and weakness of the screed or plaster coat. For better performance, the surface absorptivity should be reduced and balanced by be sealing with appropriate primers.

- To prevent shrinkage cracks on the screed or plaster, the surface should be damped 3 days after application.

- Excluding local repairs; it should not be tiled onto new screed, plaster or concrete. New screeds and concrete shrink as they dry. Leave fresh substrate for at least 6 weeks to fully set, before substrate repairing, surface smoothing and tiling.



FLATTING OF THE UNEVEN AND UNSTABLE FLOOR SUBSTRATES

The uneven and unstable floor substrates should be flatted with suitable surface repairing and smoothing mortars, particularly for proper applications of big sized tiles.

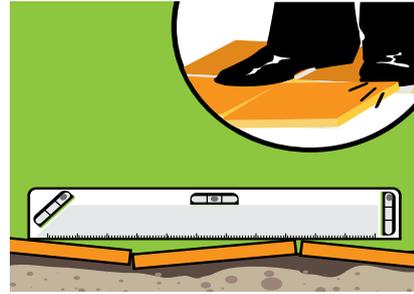
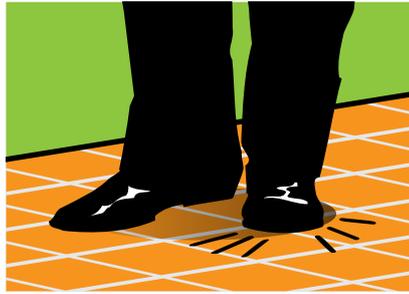
■ Weak substrates may smash due to the applied heavy loads and vibration. This will cause the substrate to lose its load bearing capacity and adherence performance. Covering will disbond, deform or crack, when the substrate cannot bear the loads with sufficient strength.



■ Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.



■ If the substrate is not leveled, this will cause edges on the covering. The edges will affect aesthetics of the covering and block motion.



The substrate should be smoothed and stabilized with either surface repairing and smoothing mortars or leveling compounds.



■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the covering and substrate. Expansion joints absorb the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Expansion joints should be insulated by using proper profiles or mastics.



FLATTING OF THE DEFECTED SUBSTRATES

FLATTING OF THE UNEVEN AND UNSTABLE FLOOR SUBSTRATES

The uneven and unstable wall substrates should be flatted with suitable surface repairing and smoothing mortars, particularly for proper applications of big sized tiles.

The substrate should be smoothed and stabilized with appropriate surface repairing and smoothing plasters.

- Sealing with appropriate primers; the high absorptivity of surfaces should be reduced and balanced, where surface adhesion should be improved for impervious substrates with primers including thick fillings (thick fillings expand bonding surface). Sealing will enhance bonding performance of the plaster on the substrate.

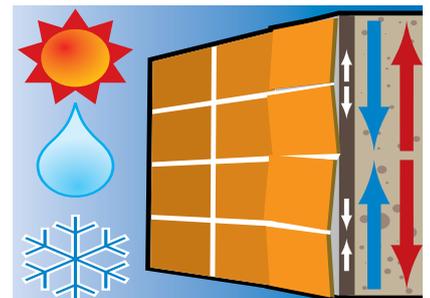
Cold joints between block pannels might be covered with plaster (plaster poured out at 10 cm width along each side of the joint). Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the pannels move.

- Reinforcement is embedded in the plaster, when the plaster is still wet, as recommended by the reinforcement manufacturer.

As a preparation to paint coating, the substrate should be plastered with two coats;

- To prevent cracks that may form on plaster surface due to shrinkage in thick plaster coats and thermal effects of outdoor conditions, a reinforcement mesh (alkali resistant type) can be applied between coats. Reinforcement mesh is embedded in the first coat of plaster, when its still wet as recommended by the reinforcement manufacturer.

- After 3 days of curing duration of the first coat, the second coat is applied for a smooth and even surface ready for painting.



■ Adhesion and rigidity of the existing tile covering should be checked by tapping a hammer. Loose or poorly adhering covering should be removed and replaced by similar covering or the substrate should be reconstituted with a suitable repairing product. Before plastering onto existing tiles, surface adhesion should be improved for impervious the substrate with primers including thick fillings.



FLATTING OF THE DEFECTED SUBSTRATES

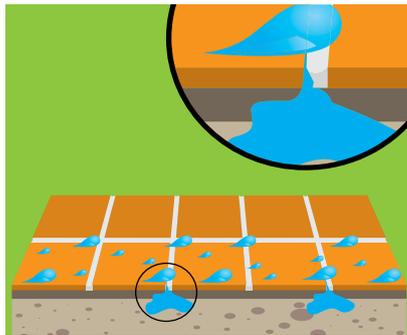


WATER PROOFING

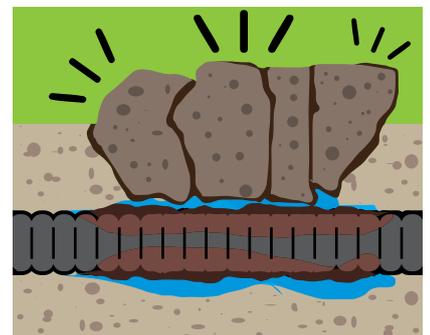
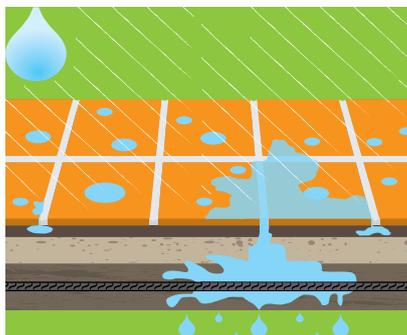
NECESSITY OF WATER PROOFING

Before tiling in areas, where will be exposed to water effect such as wet areas, outdoor terraces and pools, the substrate should be coated with appropriate water proofing materials (resistant to positive water pressure).

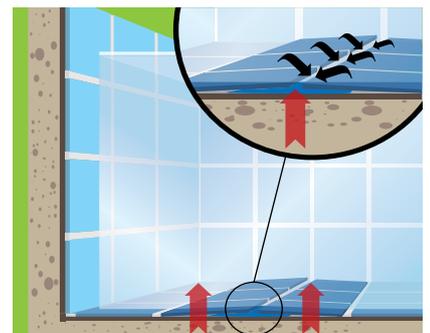
- The water may permeate through the pores or voids on the covering and joints into the adhesive and substrate. The water permeated by the substrate may encourage moisture and mould growth. The trapped water may seep through the substrate to lower floors in buildings and cause further problems.



- If trapped water in the substrate runs to the concrete building structure and contacts with reinforcement elements, it will cause corrosion of the elements. Corrosion will cause volume expansion in the concrete and reinforcement causing internal stresses and cracks, thus resulting with a vulnerable building structure.



- In case of outdoor pool and terraces; the water seeped under the covering may freeze in cold weathers. This will cause volume expansion and tension under the covering. Tension may cause dis-bonding, cracking or deformations of the covering.



WATER PROOFING APPLICATION (AGAINST POSITIVE WATER PRESSURE)

Most of the water proofing materials particular to tiling are applied by smearing the material on the substrate.

- For application in wet areas and small terraces semi-elastic water proofing materials will provide required performance, where in pools and large terraces full-elastic materials are required.

Vertical and horizontal corners may work in different axis under loading of the structure. These forces will generate shear forces along cold joints. These joints form the critical points with crack possibility.

- Even though a water proofing material is required to be flexible, its flexibility may not be sufficient to absorb the movements arising at the cold joints (internal corners) of the applied area. Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints.

- If the area subject to water-proofing will be exposed to continual water pressure (such as pools or water tanks) reinforcement of the water proofing coating is recommended strictly. Reinforcement should be done with appropriate reinforcement materials (such as alkali resistant reinforcement mesh). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.

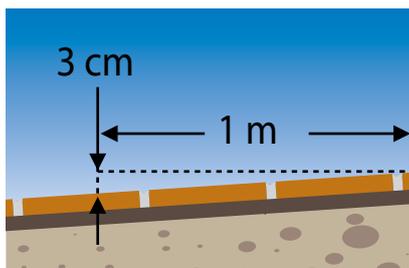
Water proofing material is applied over the surface using a stiff brush or a paint roller. 2 coats of application is recommended. It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application. The second coat should be applied as soon as the first coat has dried (reached initial set). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).

- Before applying water proofing on the substrate, surface adhesion should be improved with appropriate primers, particularly for high porosity substrates.

- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.

- Coats of water proofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have voids possibly causing leakage.

- Insulation details of structures on the covering (such as pool lighting armatures, discharge pipes, drains and faucets) should be figured out with appropriate water proofing solutions.





MOVEMENTS OF THE SUBSTRATE AND COVERING

MECHANICAL MOVEMENTS

Movements due to substrate and covering flexibility.

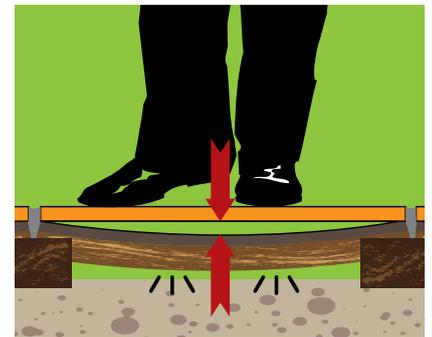
When tiling onto flexible substrates, covering and substrate should deflect in conformity according to the load applied. The adhesive should be flexible to absorb the amount of movement or in mismatch the tiles will either delaminate or crack.

- Flexible floors and walls (timber floors and gypsum pannels) will deflect, spring, vibrate or move according to the load applied.

- Deflection and the tension forming between the substrate and covering will be exacerbated across each tile's width for large tiles.

- Tiles are rigid and brittle whereas timber floors or gypsum pannels are flexible. Therefore, tiles are incapable of bending in accordance with the substrate defined.

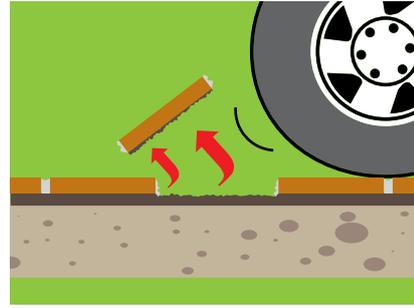
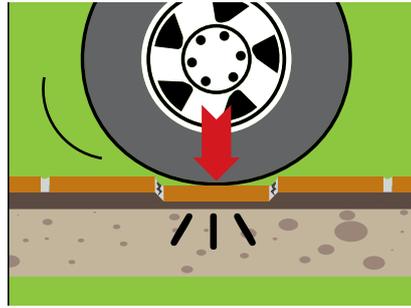
- Large tiles have less joint area to absorb any movements on the covering. This may cause cracking of the joints.



Movements due to loads.

The floors of public places (hospitals, malls, public buildings) and industrial areas (factories, warehouses) are exposed to heavy loads such as pedestrian or vehicle traffic. Loads will create pressure and vibration on the covering. The structure must be strong enough to support the expected load including tiles, adhesive, grout and the screed if needed without undue movement.

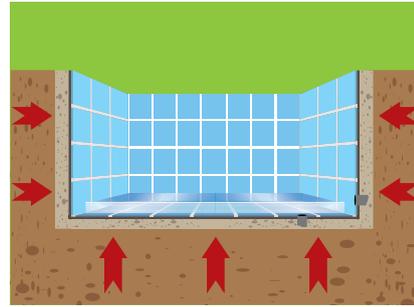
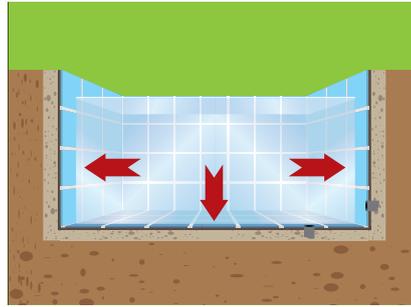
- The structure must be strong enough to support the expected load including tiles, adhesive, grout and the screed if needed without undue movement.



Movements in pools due to water pressure varying with weight water.

- After tiling the pool, once the pool is filled there will be some movement due to the effect of water pressure on the walls and the overall weight of water in the pool. These movements will cause tension in the covering system.

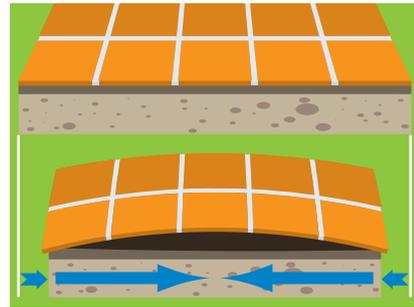
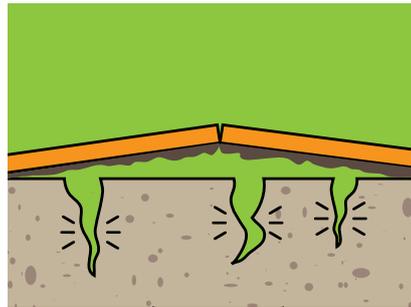
- When the pool is emptied inertial forces will be formed on the pool walls and base. Thus, the bond strength of the adhesive must not be affected by the movements caused by opposite forces.



Movements due to shrinkage of new screeds, plasters and concrete.

Newly laid cementitious screeds, plasters and concrete will shrink during curing period. When they are fresh they contain relatively large amounts of water. Excessive water retained in the binder evaporates during curing. Shrinkage occurs to compensate the volume of water lost.

- For at least 6 weeks should be allowed for the binder to stabilize and minimize shrinkage. Tiling very soon may cause tiles cracking or blowing away from their base.



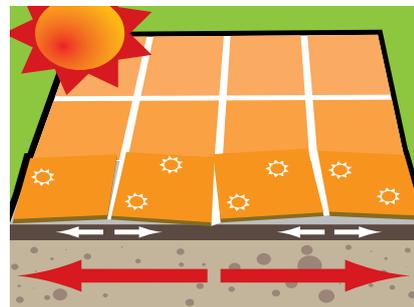
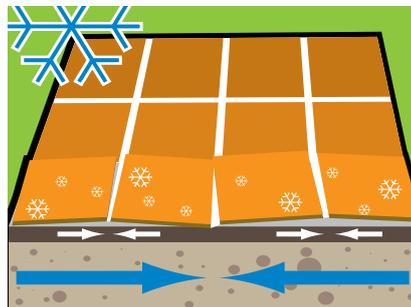
THERMAL MOVEMENTS

Movements due to thermal changes.

All substrates and covering systems (tile, adhesive and grout) will shrink and expand naturally due to temperature fluctuations and humidity. Particularly when seasonal temperature changes are severe, shrinkage and expansion will occur.

- Because of different coefficients of thermal expansion and elasticity characteristics of the materials forming the substrate and the covering system, shrinkage and expansion rates will naturally be different for each material.

- Any movement caused by shrinkage or expansion will cause stresses to form between the substrate and the tiling layer as both move at different rates. These stresses can cause cracks and fracture or delaminating of tiles.

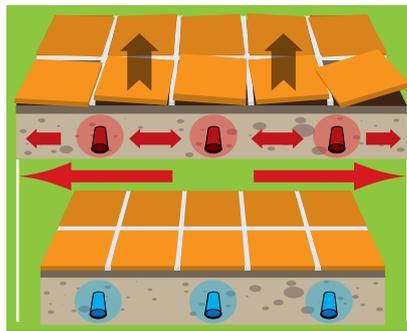
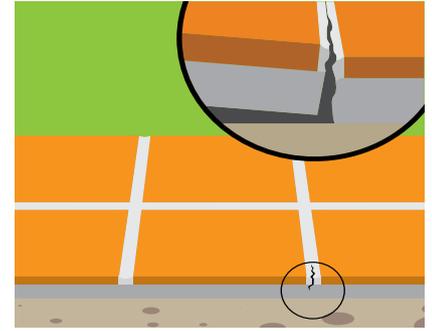
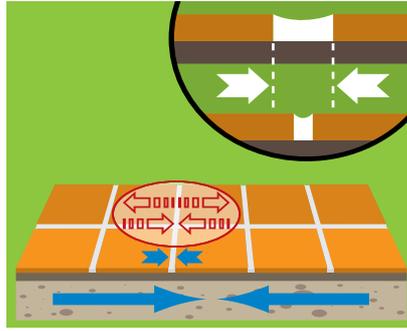


The grouting materials filled into joints should be flexible sufficient to absorb the movements occurring in horizontal with the surface. Too stiff grouting materials will fracture or depart from the tiles' edges.

■ In case of outdoor pool and terraces; the water seeped under the covering may freeze in cold weathers. This will cause volume expansion and therefore tension under the covering. Tension may cause delaminating, cracking or deformations of the covering.

Tiling onto under floor heated systems; the tiles usually have a lower coefficient of thermal expansion. For a given temperature rise tiles will expand less than the substrate and stresses will be formed at the interface between the tile and the adhesive. At weak bonded parts, the tiles may delaminate or blow away from their base.

■ Same rule applies for the substrates on heat transmitting systems and insulation applications.

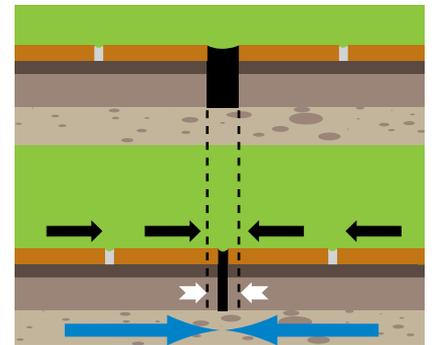
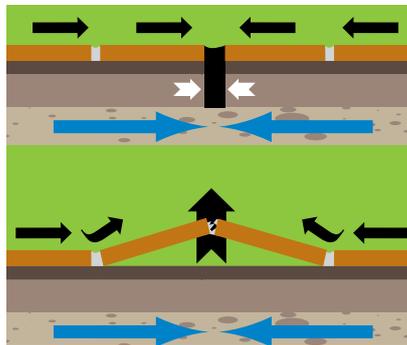


USE OF EXPANSION JOINTS

Expansion joints on floors.

■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the covering and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wide-ness of the area.

■ Expansion joints absorb the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering.



Any movement joints in the building structure must be carried through the tiling layer.

- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints.

- When the area is smaller than 4m x 4m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.

- Expansion joints should have minimum width of 6-10 mm.

- Expansion joints should be laid where tiling meets other materials, along all internal corners (wall and floor intersections). Skirting should be fixed upon to the completion of tiling.

- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.

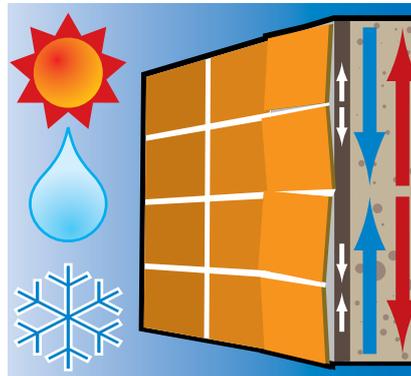
- Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.



Expansion joints on facades.

- On facades; along storey transitions, in internal corners, overlapping wall coverings, wall-floor intersections and on areas > 3 m x 3 m expansion joints should be applied. Expansion joints should have minimum width of 10 mm. Skirting should be fixed upon to the completion of tiling. Expansion joints should be insulated by using proper profiles or mastics.

- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.



Compatibility of the substrate and covering system.

- In tiling application which are exposed to mechanical and thermal loads, compatible products (substrate-selaing-adhesive-tile-grouts) with elastic character should be selected for corresponding to the movements (expansions and shrinks) caused by thermal and mechanical effects.



TILE FIXING

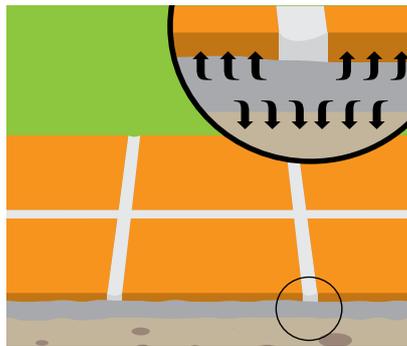
BONDING MECHANISM OF A TILE ON THE SUBSTRATE

The adherence of a tile adhesive on the substrate and back of tile are subject to two types of bonding mechanisms:

Mechanical bonding.

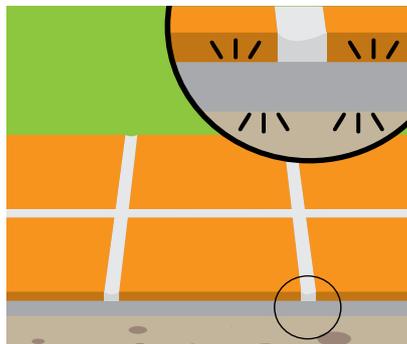
■ Standard type adhesives, applied when mixed with water (cement as mineral binding content) or ready mixed as a dispersion (acrylic as mineral binding content), engages physically with small irregularities, pores (absorbed by the substrate and tile with capillary forces) etc. in the surface and forms a strong bond when adhesive sets in those pores, resulting in a mechanical keying action to bond.

(Tile is referred to covering materials; ceramic wall and floor tiles, porcelain tiles, glass mosaics and tiles, natural stones and marbles, and etc.)



Physical bonding.

■ When the tile or substrate has an impervious surface, then the hydraulic adhesives cannot be absorbed into the material and there is no allowance for a mechanical bonding. The bonding should be provided only by the surface itself. Thus, organic polymers binding agents are added into the adhesive content (polymer modified adhesives) to provide a strong bonding of the adhesive on the tile or substrate surface (polymer binder is referred to reactive resins or thermoplastic dispersions which adhere by chemical bonding, Van der Waals forces and etc.).



EN 12004 STANDARDS

EN 12004 Standard identifies the test and performance criteria to classify tile adhesives. According to the standard, the adhesives are classified by their performances.

Tile adhesives are categorized according to their chemistry and these categories are abbreviated by letters of the alphabet:

C Cement Based

Cement based powder adhesive is mixed with a specific amount of water or some other liquid to use.

D Acrylic Dispersion Based

Water emulsion based paste adhesive with synthetic polymer additive. It is ready for use.

R Reactive Resin Based

Two or more components (including one component as the resin and one another as the hardener) are mixed in specific amounts to use.

The adhesive in one of the adhesive chemistry categories is classified into one of the two performance classes according to its performance level in defined tests:

Class 1

(Normal) **Standard Performance** adhesive. It validates the minimum required performance level in tests. It is suitable for standard applications requiring no special performance.

Class 2

(Improved) **High Performance** adhesive. It validates higher performance levels in comparison to standard performance adhesives. It is suitable for applications with types of works subject to coercive environmental forces requiring special performance.

Tensile Strength	C1	D1	C2	D2
After 28 days	≥ 0,5 N/mm ²		≥ 1 N/mm ²	
Aging with heat	≥ 0,5 N/mm ²		≥ 1 N/mm ²	
Aging with water	≥ 0,5 N/mm ²		≥ 1 N/mm ²	
Freeze-thaw cycle	≥ 0,5 N/mm ²		≥ 1 N/mm ²	
Open time (20 minutes)	≥ 0,5 N/mm ²		≥ 0,5 N/mm ²	

Standard defines three optional characteristics for a class1 or class 2 adhesive:

F **Fast Setting**

Tensile strength (after 24 hours) ≥ 0,5 N/mm²
Ideal for tiling applications when short drying time is required, particularly for renovation works, and for cold and high humidity conditions that extends drying time.

T **Reduced Slip**

Slip ≤ 0,5 mm
Ideal for tiling applications of large and heavy tiles on walls.

E **Extended Open Time**

Tensile Strength (fixing at the 30th minutes of open time) ≥ 0,5 N/mm²
Ideal for tiling applications when long working time is required, particularly for large areas, and for hot and dry conditions that shortens drying time.



EN 12002 STANDARDS

Standard, in addition to EN 12004 Standard, classifies the adhesive according to the deformability performance:

According to its deformability level the adhesive is classified into one of the two performance classes:

Deformability features are required for tiling applications such as for pools, industrial floors subject to heavy loads, facades affected by severe temperature fluctuations.

S1 **Deformable Adhesive**

Deformation > 2,5 mm but < 5,0 mm

S2 **Highly Deformable Adhesive**

Deformation > 5,0 mm



REQUIRED-ESSENTIAL FEATURES FOR A TILE ADHESIVE

Below are the features of a tile adhesive when it is wet, during application and before it hardens:

- **Workability** (easy application and good spreading performance of the adhesive).
- **Water retention capacity** (for sufficient hydration and bonding performance of the cement based adhesive even on high porosity surfaces).
- **Reduced slip** (non-slipping of the tiles in the new adhesive bed and ensuring fast and efficient wall tiling).
- **Wetness capability** (on the substrate and tile back).
- **Sufficient open and adjustment time.**

Below are the features of a tile adhesive after it hardens and completes its curing:

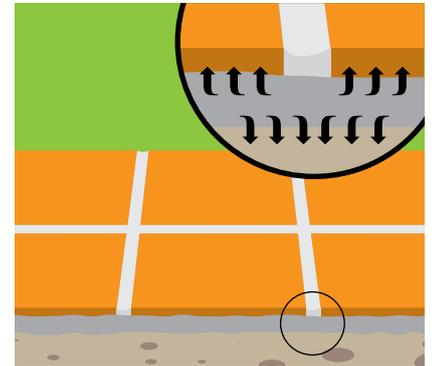
- **High bonding performance** (between the tile and the substrate).
- **High deformability** (the adhesive should absorb the stresses forming between the substrate and the tiling layer in fluctuating thermal conditions).
- **Reduced water absorption** (hydrophobic dispersion additives providing water repellency).

FACTORS AFFECTING ADHESIVE SELECTION

Surface absorptivity of the tile (water permeability).

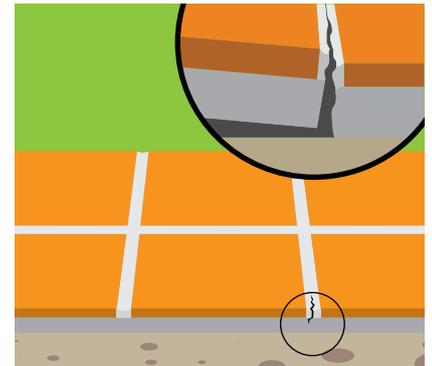
When the adhesive contacts with tile back, it engages physically with small irregularities, pores (absorbed by the substrate and tile with capillary forces) etc. in the surface and forms a strong bond when adhesive sets in those pores, resulting in a mechanical keying action to bond.

- Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).



When tiling is done with a standard performance adhesive onto an impervious substrate, the adherence is much weaker resulting in tiles de-bonding from the substrate.

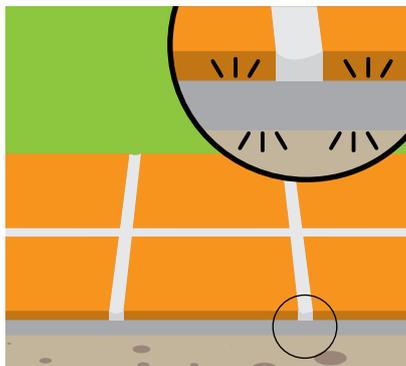
- When the covering materials has very low or no absorptivity (such as porcelain or glass), then the standard type adhesives cannot be absorbed into the material and there is no allowance for a mechanical bonding.



- Impervious substrates may have no irregularities or pores where the adhesive would engage.

■ Bonding of the adhesive onto impervious surfaces (of the substrate or tile back) with a sufficient adherence performance is yielded by chemical additives named polymers (organic resins). Polymers provide the physical bonding of the adhesive.

- To provide improved fixing, tile may be produced with irregularities, pores or roughness on the back.



- According to definitions above, standard performance adhesive is suitable for fixing tiles with water absorption rate $\geq 3\%$ (wall and floor tiles, marble and etc.), whereas high performance adhesive is required for fixing tiles with water absorption rate $< 3\%$ (glass mosaics, porcelain tiles and etc.). However; if coercive environment forces are subjected after tiling, high performance adhesive should be chosen.

Surface absorptivity of the substrate (water permeability).

■ Substrates with different formats may have different surface absorptivities (water permeability). Gypsum (board, panel and plaster), wooden (board, panel and OSB), cement (board, plaster and screed) based substrates have high surface absorptivity (water absorption rate ~ 5-30 %). Surface absorptivity for concrete substrate is very low, where glazed tiles or painted surfaces have almost any (water absorption rate ~ 0-1 %).

■ Sealing with appropriate primers; the high absorptivity of surfaces should be reduced and balanced to enhance bonding capability of the substrate.



■ When tiling onto substrates with low porosity (water absorption rate < 3%), high performance adhesive should be chosen.

Acrylic dispersion based ready-mixed adhesives are dispersions of polymers and fillings in water and harden and do gain strength by losing the excessive water retained in its form and dry out. On highly absorptive substrates, these adhesives can be applied without priming the substrate.

■ The adhesive performance class should be chosen according to the tile format and technical requirements.



Flexible substrates.

Wooden floors and panels, gypsum boards may move or flex when exposed to loading (stepped on or pressed), which will cause instability of the covering leading to disbonding and cracking problems. Before tiling application, the loose boards or parts should be replaced, panels laid on joists or battens should be reinforced and fixed to stabilize.

■ When tiling onto flexible substrates, covering and substrate should deflect in conformity according to the load applied. The adhesive should be flexible to absorb the amount of movement or in mismatch the tiles will either delaminate or crack.



■ High performance and deformable adhesives have flexible character.

Covering material size and weight.

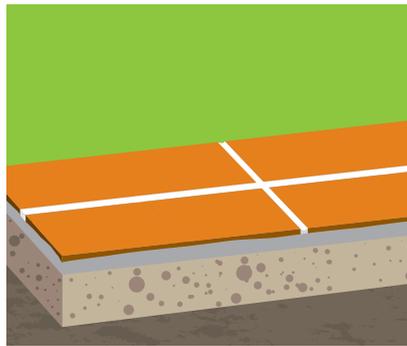
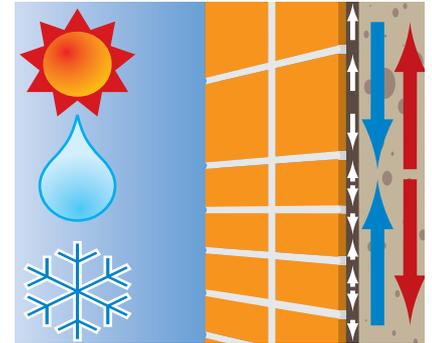
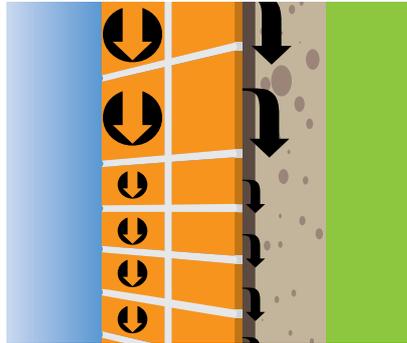
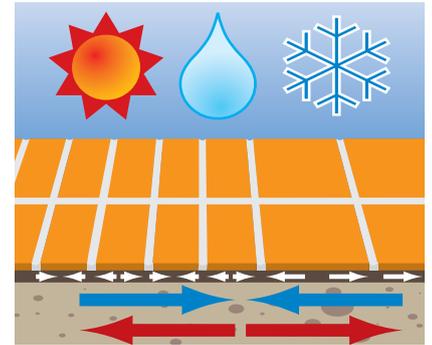
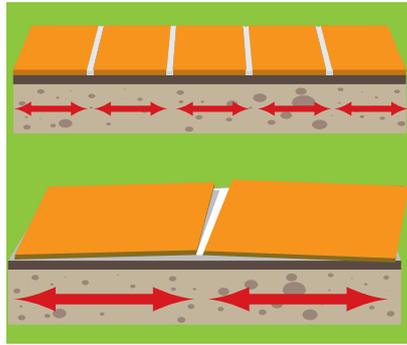
When the adhesive contacts with tile back, it engages physically with small irregularities, pores (absorbed by the substrate and tile with capillary forces) etc. in the surface and forms a strong bond when adhesive sets in those pores, resulting in a mechanical keying action to bond.

- Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).

In vertical tiling applications, tile weight per m² is critical.

- Heavy tiles may sag by gravity effect and squeeze the underlying tile. The underlying tile may not resist the sagging load of the upper tile and delaminate from the substrate.
- Large tiles have less joint area to absorb the movements occurring on the covering.

In fixing tiles and natural stones with irregularities on the back or inconstant thickness, selection of a thick bed adhesive will provide an easier and efficient application as the adhesive will perform the leveling to some extent.

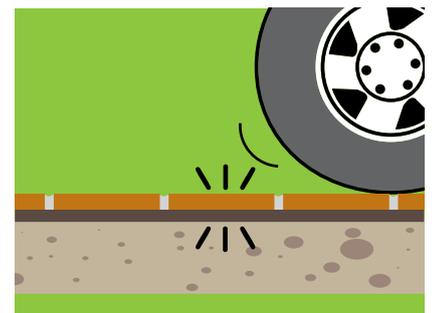
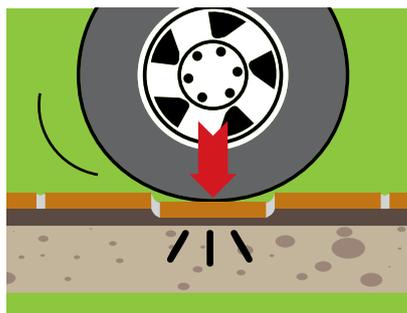
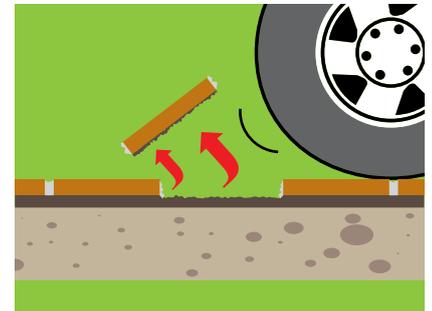
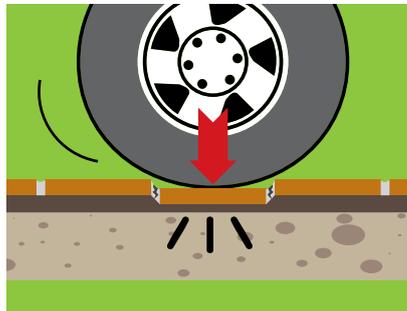


Area of use.

For areas exposed to light pedestrian traffic, standard performance adhesives provide the required technical performance.

The floors of public places (hospitals, malls, public buildings) and industrial areas (factories, warehouses) are exposed to heavy loads such as pedestrian or vehicle traffic. Loads will create pressure and vibration on the covering.

- The adhesive must be high performance and deformable class to bear the expected loads the area is subject to.



Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.

- For the tile to correspond the loading homogeneously on all tile area, full contact of the adhesive on the substrate is required. For even distribution of the adhesive on the substrate with a full contact (for full spreading of the adhesive on tile back) performance, adhesive should have good workability features (easy spread and applied) when applied with a suitable notched trowel.

- Adhesive with a fluidic form is required for the adhesive to easily spread and fully cover the tile back. When loaded heavily, in order not to smash the adhesive should be thick bed and deformable (flexible).

All substrates and covering systems will shrink and expand naturally due to temperature fluctuations and humidity. Particularly, when seasonal temperature changes are severe, shrinkage and expansion will exacerbate. In case of outdoor pool and terraces; the water seeped under the covering may freeze in cold weathers. This will cause volume expansion and therefore tension under the covering. Tension may cause delaminating, cracking or deformations of the covering.

- The adhesive should be flexible type to absorb the amount of movements with a high performance adhering ability. Additionally, the adhesive should have water repellent property in order to resist the corrosive effects of water.

Coverings on external facades are subject to wind loads. The tiles are sucked outwards from its substrate with forces occurring due to the blowing of the wind with varying amplitude.

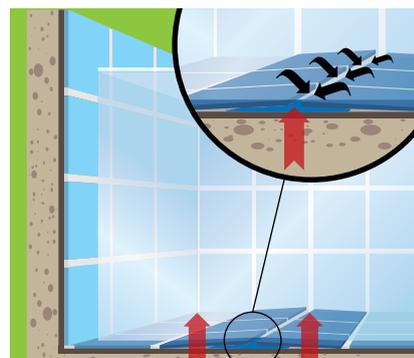
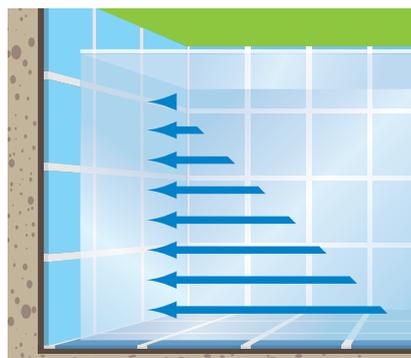
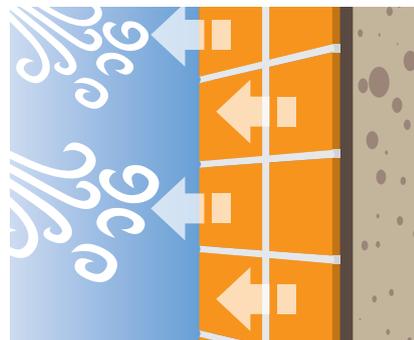
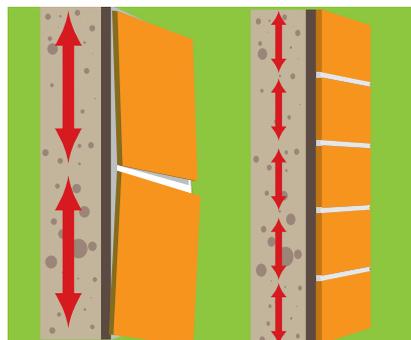
- Deflection and the tension forming between the substrate and covering will be exacerbated across each tile's width for large tiles when wind loads and thermal loads are subjected.

- In external facade tiling, the adhesive must be high performance and deformable class to bear the expected wind and thermal loads the area is subject to, while ensuring that enough fixing strength is provided to resist gravity loads of tiles.

In pools and water tanks movements occur due to water pressure varying with weight water.

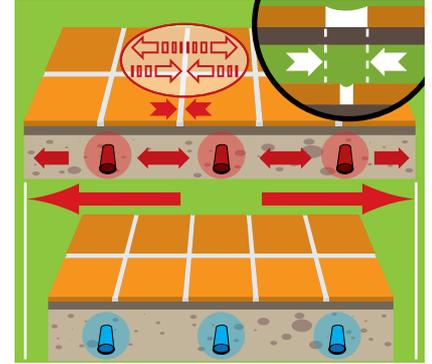
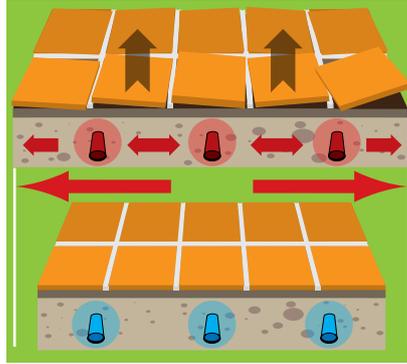
- Once the pool or water tank is filled, there will be some movement due to the effect of water pressure on the walls and the overall weight of water in the pool. When the pool is emptied inertial forces will be formed on the pool walls and base. These movements will cause tension in the covering system. If tiles crack or blow away from their base under tension, the pool shell will be exposed to the corrosive effects of water.

- The bonding strength of the adhesive must not be affected by the movements caused by opposite forces. High performance, flexible and water resistant adhesives should be selected particularly developed for pool tiling.



Tiling onto under floor heated systems; the tiles usually have a lower coefficient of thermal expansion. For a given temperature rise tiles will expand less than the substrate and stresses will be formed at the interface between the tile and the adhesive. At weak bonded parts, the tiles may delaminate or blow away from their base. Same rule applies for the substrates on heat transmitting systems and insulation applications.

- In these typical applications, the adhesive should be high performance class providing flexibility enough to work compatible to the movements occurring in the substrate.



Colour and porosity of the tile.

In fixing transparent and light colored tiles and natural stones, particularly when they are highly porous, the covering material may absorb the adhesive. This causes the formation of stain and shades visible on the covering surface.

- A sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.



Time to put into service.

In case of renovation and repair works, tiling may be aimed to be completed in fast.

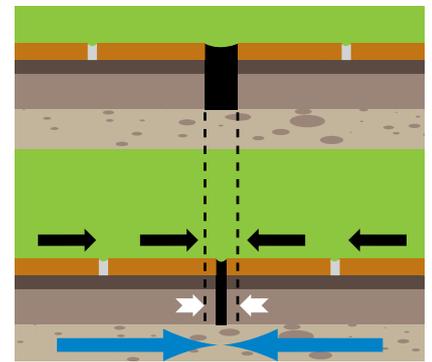
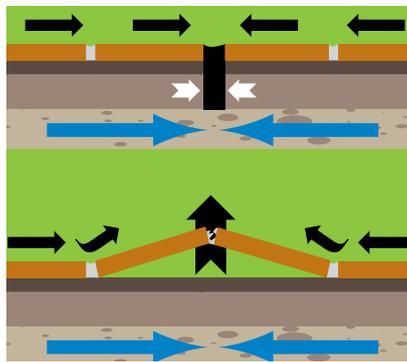
- Fast setting adhesives provide set times as low as 3 hours compared minimum set time of 24 hours in regular adhesives.
- The adhesive performance class should be chosen according to the tile format and technical requirements.



Use of expansion joints.

The tension formed between the covering and the substrate due to thermal and mechanical loads should be absorbed by use of deformable and flexible type adhesives.

- When tiling on large areas (area > 6m x 6m), the adhesive may not be sufficient to absorb the tension singly. The continuity of the covering should be interrupted by using expansion joints to allow for slight movements and yet to release the tension formed on the covering system.



- Expansion joints should be laid where tiling meets other materials, along all internal corners (wall and floor intersections). Skirting should be fixed upon to the completion of tiling.

- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.



Expansion joints should have minimum width of 6-10 mm. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.

- The profiles or mastics should be resistant to bacteria and fungi formation and to the chemicals the area will be exposed to.

- In use of mastics; to save in the amount of mastics to use, the expansion joints are recommended to be first filled with polyethylene elastic filaments with suitable sizes. Then, the mastic should be applied into the joint as well as leveled to the covering.



APPLICATION

Mixing of the adhesive.

C class - cement based powder adhesive is mixed with a specific amount of water or some other liquid to use.

- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.

- Two components adhesive (including one component as the powder and one another as the liquid) is mixed in amounts of the components as specified on the technical legends on the product packaging or technical data sheets.

- The components are mixed (gradually add powder to the clean water or liquid component) to a smooth and homogenous paste in a bin.

D class - acrylic dispersion based paste adhesive is ready for use. Do not add any of water or other additives into the paste.



- For a smooth and homogenous paste, it is recommended to use a low cycled electrical drill-mixer for mixing.

- For adhesives with T - reduced slip, the paste should be in a consistence such that it does not flow when handled with a trowel.

- The paste should rest for 5 minutes prior to application and should be applied after remixing.

Fixing tiles.

Apply the adhesive on the substrate with a suitable notched trowel to achieve the required bed thickness.

- Use of notched trowel provides even spreading of the adhesive on tile back ensuring the required bed thickness.

- The type and size of the notched trowel to be selected varies according to the tiling purpose and tile format. In general, when fixing large sized tiles and the tiled area will be exposed to heavy loads, large sized notched trowel should be selected.



According to the size of the tiles, fix tiles with either single buttering method (the adhesive is buttered on the substrate) or double buttering method (for tile sizes > 33x33 cm, adhesive should be buttered onto the tile back as well). The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact.

- Double buttering method provides full contact of the tile on the substrate.
- Glass tiles, natural stones and marbles should be fixed with double buttering method.

The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back.

- Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.
- Lift an occasional tile after fixing to verify that the required contact is being achieved.
- The irregularities, pores or roughness on tile back should be completely filled with adhesive when applied with double buttering method.



Precautions.

- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesives should be used.

The tiles should be fixed within the specified open time of the adhesive.

- The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Fixing after wetting the dried adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be re-applied.



- Wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired.

- The adhesive has a specified pot life. Dried adhesive should be disposed and new adhesive should be mixed. Do not add more water into the dried adhesive to provide a consistent paste, it is not applicable.

- Grouting must be done after the adhesive fully completes its initial set. Setting time may change due to application conditions, adhesive characteristics and application area. During setting phase, the covering should be protected from loadings, direct sun light, frost and rain.

- Application on hot surfaces and during sunny and/or windy weather is not recommended. The substrate should have no risk of freezing.



TILE FIXING



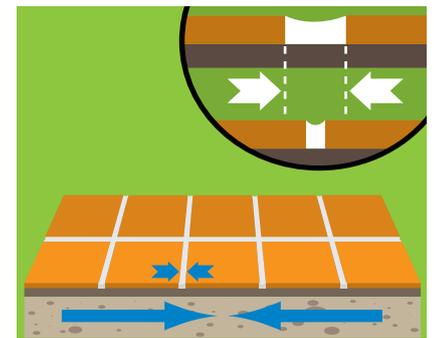
GROUTING JOINTS

FUNCTIONS OF A TILE GROUT

The grouting material used in filling tile joints has mainly two distinct functions:

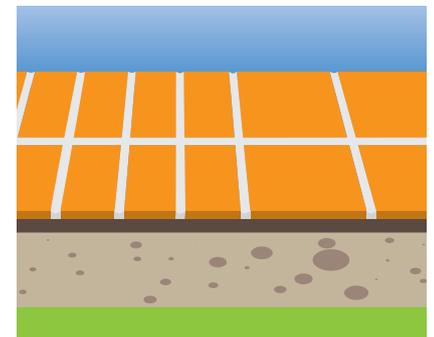
Physical function.

- Protects the tile covering and its base against abrasion, and corrosive effects of water and liquid chemicals.
- It compensates the movements and absorbs the stress formed on the covering by thermal and mechanical effects.



Decorative function.

- Varying wideness of the joint allows flexibility in covering design.
- It yields a unified outlook of the covering by compensating the size variations of tiles.
- Wall and floor coverings with different formatted tiles are combined by joints.
- Colour options for grouting materials provide decorative fertility.



EN 13888 STANDARD

EN 13888 Standard identifies the test and performance criteria to classify the grouting materials used in filling tile joints. According to the standard, the grouting materials are classified by their performances.

Tile grouts are categorized according to their chemistry and these categories are abbreviated by letters of the alphabet:

CG Cement Based

Cement based powder grouting material is mixed with a specific amount of water or some other liquid to use.

RG Reactive Resin Based

Two or more components of the grouting material (including one component as the resin and one another as the hardener) are mixed in specific amounts to use.

The grouting material in one of the chemistry categories is classified into one the two performance classes according its performance level in defined tests:

Class 1

(Normal) **Standard Performance** grouting material. It validates the minimum required performance level in tests.

It is suitable for standard applications requiring no special performance.

Class 2

(Improved) **High Performance** grouting material. It validates higher performance levels in comparison to standard performance adhesives.

It is suitable for applications with types of works subject to coercive environmental forces requiring special performance.

Primary Technical Performance Requirements

CG1

Abrasion resistance	: < 2000 mm ³
Bending strength	: ≥ 3,5 MPa (N/mm ²)
Bending strength (freeze-thaw cycle)	: ≥ 3,5 MPa (N/mm ²)
Compressive strength	: ≥ 15 MPa (N/mm ²)
Compressive strength (freeze-thaw cycle)	: ≥ 15 MPa (N/mm ²)
Shrinkage	: < 2 mm/m
Water absorption (after 30 minutes)	: < 5 gr
Water absorption (after 240 minutes)	: < 10 gr

Additional Technical Performance Requirements (in addition to CG1)

CG2

Extra-high abrasion resistance	: < 1000 mm ³
Water absorption (after 30 minutes)	: < 2 gr
Water absorption (after 240 minutes)	: < 5 gr

Technical Performance Requirements

RG

Abrasion resistance	: < 250 mm ³
Bending strength	: ≥ 30 MPa (N/mm ²)
Compressive strength	: ≥ 45 MPa (N/mm ²)
Shrinkage	: < 1,5 mm/m
Water absorption (after 240 minutes)	: < 0,1 gr



REQUIRED - ESSENTIAL FEATURES FOR A TILE GROUT

Below are the features of a grouting material when it is wet, during application and before it hardens:

- **Workability** (easy application and good spreading performance of the grouting material).
- **Water retention capacity** (for sufficient hydration and bonding performance of the cement based grouting material even on high porosity surfaces).
- **Reduced flow** (non-flowing of the grouting material ensuring fast and efficient wall tiling).
- **Wetness capability** (on the substrate and tile back).
- **Sufficient workability time.**

Below are the features of a grouting material after it hardens and completes its curing:

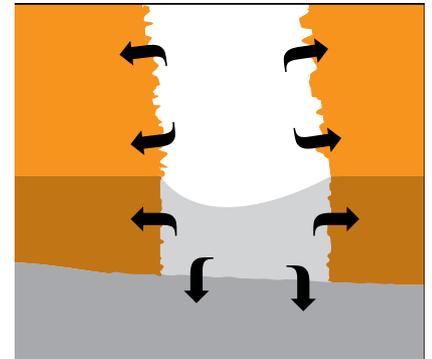
- **High bonding performance** (on the tile and the substrate).
- **High deformability** (the grouting material should absorb the stresses and compensate the movements forming between the substrate and the tiling layer in fluctuating thermal conditions).
- **Reduced water absorption** (water repellent feature and better imperviousness) (reduced coloring and efflorescence risk, improved color stability provided by hydrophobic dispersion additives).
- **Improved abrasion resistance** (robustness) (high resistance to physical effects and chemicals).

FACTORS AFFECTING TILE GROUT SELECTION

Surface absorptivity of the tile (water permeability).

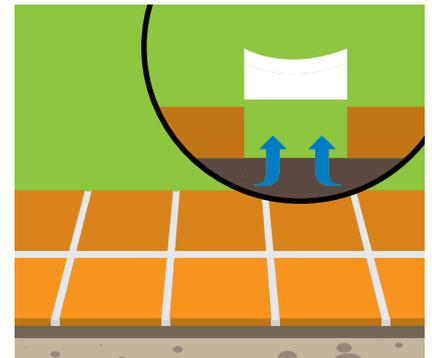
When the grouting material contacts with tile sides, it engages physically with small irregularities, pores (absorbed by the tile and substrate with capillary forces) etc. in the surface and forms a strong bond when grouting material sets in those pores, resulting in a mechanical keying action to bond.

- Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).



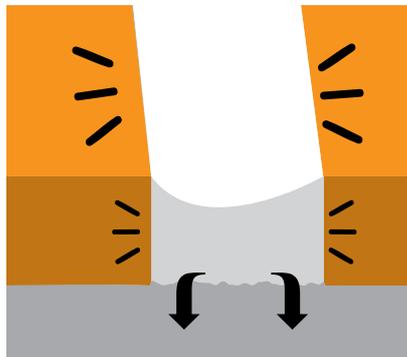
When grouting is done with a low adhering performance grouting material into the joints of impervious tiles, the adherence is much weaker resulting in grouts de-bonding from its base.

- When the covering materials has very low or no absorptivity (such as porcelain or glass), then the standard type grouting materials cannot be absorbed into the material and there is no allowance for a mechanical bonding.
- Impervious tiles may have no irregularities or pores where the grouting material would engage.



- Bonding of the grouting material onto impervious surfaces (of the substrate or tile sides) with a sufficient adherence performance is yielded by chemical additives named polymers (organic resins). Polymers provide the physical bonding of the adhesive.

- To provide improved bonding, tile may be produced with irregularities, pores or roughness on the sides.



- According to definitions above, standard performance tile grout is suitable with tiles with water absorption rate $\geq 3\%$ (wall and floor tiles, marble and etc.), whereas high performance tile grout is required for tiles with water absorption rate $< 3\%$ (glass mosaics, porcelain tiles and etc.). However; if coercive environment forces are subjected after tiling, high performance tile grout should be chosen.

- Reactive resin based tile grout bond with much higher strength into the joint and provide very high technical performance in comparison to cement based tile grout.

Flexible substrates.

Wooden floors and panels, gypsum boards may move or flex when exposed to loading (stepped on or pressed), which will cause instability of the covering leading to disbonding and cracking problems. Before tiling application, the loose boards or parts should be replaced, panels laid on joists or battens should be reinforced and fixed to stabilize.

- When tiling onto flexible substrates, covering system and the substrate should deflect in conformity according to the load applied. The tile grout should be flexible to absorb the amount of movement or in mismatch joints will either delaminate or crack.

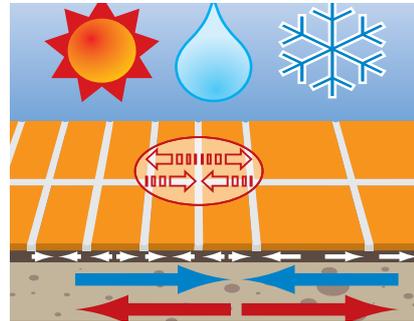
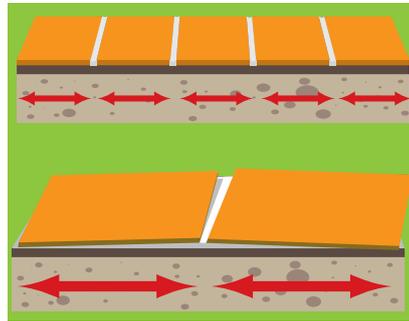


- High performance tile grouts have flexible character.

Covering material size and weight.

Deflection and the tension forming between the substrate and covering will be exacerbated across each tile's width for large tiles.

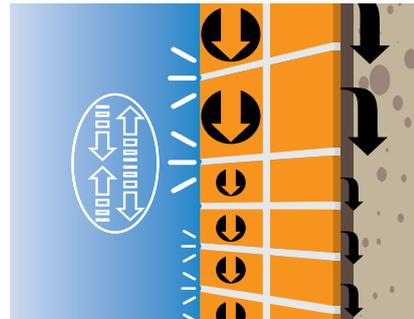
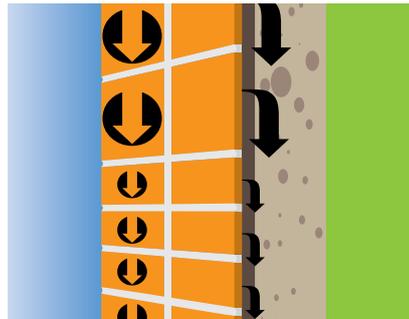
- When tiling middle and large sized (>33x33 cm) tiles, flexible tile grouts with high performance should be selected to maintain required flexibility to absorb the tension and movement between the tiles.



In vertical tiling applications, tile weight per m² is critical.

- Heavy tiles may sag by gravity effect and squeeze the underlying tile. In a very rigid covering system, the underlying tile may not resist the sagging load of the upper tile and delaminate from the substrate.

- Large tiles have less joint area to absorb the movements occurring on the covering.

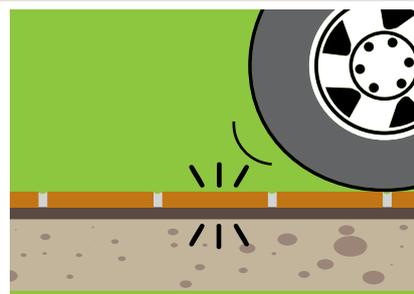
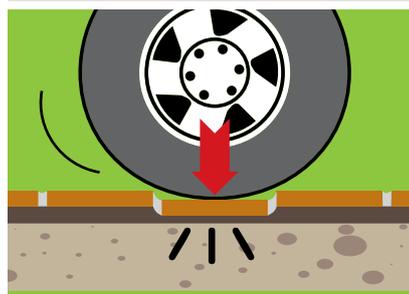


Area of use.

For areas exposed to light pedestrian traffic, standard performance tile grouts provide the required technical performance.

The floors of public places (hospitals, malls, and public buildings) and industrial areas (factories, warehouses) are exposed to heavy loads such as pedestrian or vehicle traffic. Loads will create pressure and vibration on the covering.

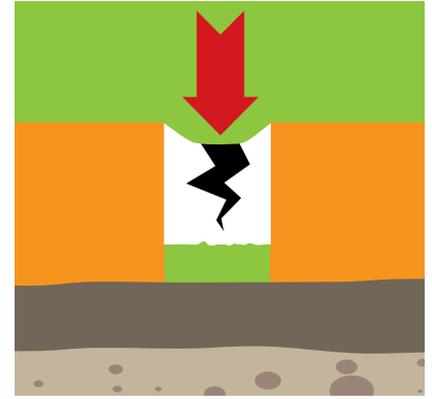
- The tile grout must be high performance class with flexibility to bear the expected loads the area is subject to.



GROUTING JOINTS

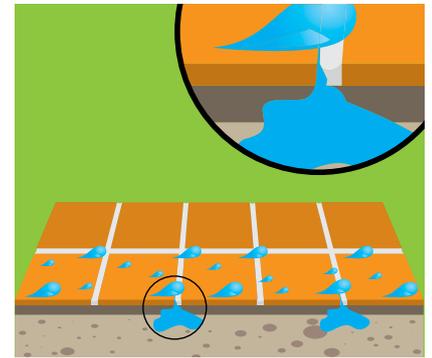
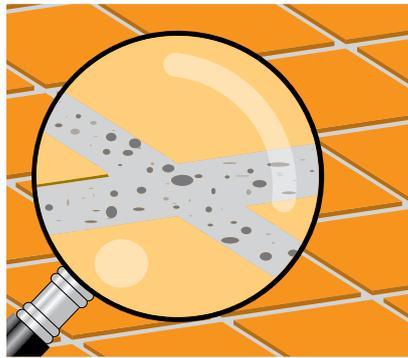
Any area of the tile grout that has no contact on the substrate and has voids under is vulnerable when subjected to a localized load. These fragile points will let cracks.

- For the tile grout to correspond the loading homogeneously on all along covering area, full filling of the grout joint is required.



In areas such as auto services, food factories, laboratories and etc. where the covering is exposed to various chemicals, epoxy resin based grouts providing very high resistance to chemicals should be used for tile grouting.

- If the tile grout do not resist against corrosive effects of the chemicals, it will decompose leaving the coverings base and the substrate open to corrosive effects.



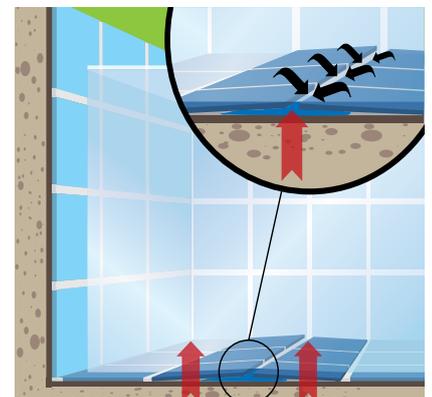
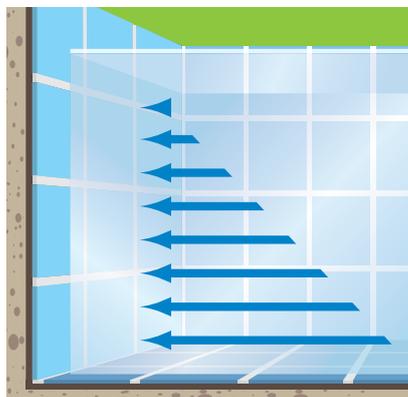
In case of outdoor pool, terrace, balcony and facade tiling, all substrates and covering systems will shrink and expand naturally due to temperature fluctuations and humidity. Particularly, when seasonal temperature changes are severe, shrinkage and expansion will exacerbate. Tile grouts in such applications will also be exposed to the vulnerable and corrosive effects of rain, snow, freeze, UV and etc.

- The tile grout should be flexible type to absorb the amount of movements with a high performance bonding ability. Additionally, the tile grout should have water repellent property in order to resist the corrosive effects of water. Otherwise, water seeps through the grout cracks under the covering and may freeze in cold weathers. This will cause volume expansion and therefore tension under the covering. Tension may cause delaminating, cracking or deformations of the covering.



In pools and water tanks movements occur due to water pressure varying with weight water.

- Once the pool or water tank is filled, there will be some movement due to the effect of water pressure on the walls and the overall weight of water in the pool. When the pool is emptied inertial forces will be formed on the pool walls and base. These movements will cause tension in the covering system. The bonding strength of the tile grout must not be affected by the movements caused by opposite forces. If tile grouts crack or blow away from their base under tension, the pool shell will be exposed to the corrosive effects of water.

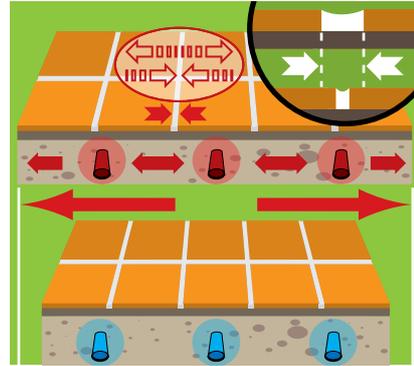
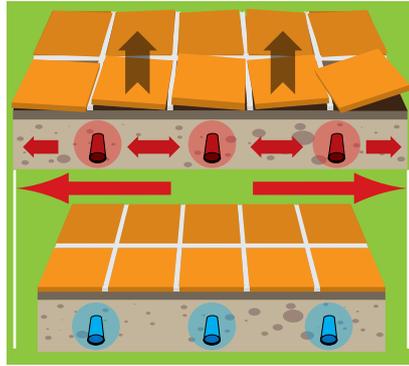


- Tile grouts particularly developed for pool tiling with high performance, flexibility, water repellency and resistance to pool cleaning chemicals should be selected in pool tiling.

- Epoxy resin based grouting materials with high resistance to corrosive chemicals and abrasion should be selected particularly in applications of olympic pools (exposed to high water pressure and frequent use of corrosive pool cleaning materials) and pickle production pools (exposed to constant acidic liquid contact) and thermal pools (exposed to very strong thermal effects).

Tiling onto under floor heated systems; the tiles usually have a lower coefficient of thermal expansion. For a given temperature rise tiles will expand less than the substrate and stresses will be formed between the tiles and the substrate. In such a case, the tile grout should absorb the tension and the movements occurring between the tiles. Otherwise, the tiles may delaminate or blow away from their base. Same rule applies for the substrates on heat transmitting systems and insulation applications.

- In these typical applications, the tile grout should be high performance class providing flexibility enough to work compatible to the movements occurring in the substrate.



APPLICATION (CG CLASS – SINGLE COMPONENT / CEMENT BASED)

Surface preparation.

- Grouting should start after the adhesive has set and dried. Instructions of the adhesive producer should be followed. Grouting material's colour may vary due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (ie, gypsum plasters or non-glazed tiles) should be wetted before grouting.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

Mixing of the grouting material.

CG class - cement based powder grouting material is mixed with a specific amount of water to use.

- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).
- The components are mixed (gradually add powder to the clean water) to a smooth and homogenous paste in a bin.



- For a smooth and homogenous paste, it is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

Application.

Fill the grouting material in the joints completely with a suitable squeegee or a rubber float leaving no voids.

- Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens.
- If moved parallel to the tiles the grouting material within the joints may be removed causing a deformed grout surface.
- Work on a small area at a time. Be particular about tiles with soft surface which can be scratched during grouting.



- Always follow the same direction across tiles when applying the grouting material.

Cleaning.

Time for cleaning the excess grouting material from tile surface is when the grout has started to dry.

- Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates), and may extend in lower temperatures and/or high humidity conditions, or when grouting impervious or sealed tiles.

- Exact time may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.

- To clean the tiles use a dampened cleaning pad or sponge. Use only clean and non-chalky water to dampen the pad or sponge.

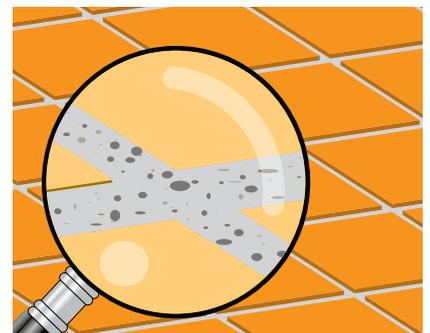
- Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved.

- Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.

- In case of cleaning earlier or later, yet wet or hardened grout residues may deform the grouts and cause scratches and colour variations on grouts surface.

Final cleaning to remove the grouting material residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth.

- The residues on tiles are cleaned gently with the cloth in circular motion. Continue wiping the tiles until all residues are moved.



- If any residues remain after final cleaning, wait for 10 days and treat the tiles with acidic content tile cleaning material to loosen and remove these residues.



Precautions.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- In hot, dry and windy conditions, wetting the surface of the grouts a few hours after the application will yield a better final product performance.
- To improve the technical performance of the grouting material (improved resistance and flexibility and water repellency features), it is recommended to add performance improving additive into the mixing water.

APPLICATION (RG CLASS-TWO COMPONENTS/EPOXY RESIN BASED)

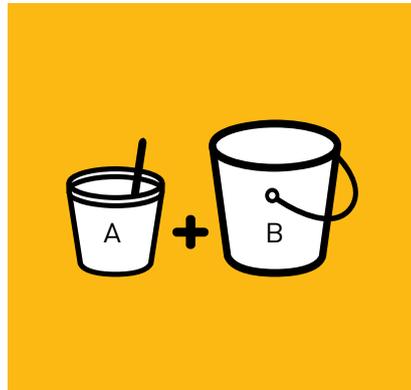
Surface preparation.

- Grouting should start after the adhesive has set and dried. Instructions of the adhesive producer should be followed.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.

Mixing of the grouting material.

RG class – epoxy resin based grouting material is prepared by mixing of the two components (Component A – epoxy resin and Component B – hardener) with a specific mixing rate to use.

- Do not add any water or other additives into the mixture than it is specified on the technical legends on the product packaging or technical data sheets, and conform to the mixing rate of the components.
- Do not add more or less of the components than specified to get a fluid form or extend pot life (working time). Do not add water.
- Gradually add the entire hardener component (component B) to the epoxy resin component (component A) in a bin, and mix to a smooth and homogenous paste with a uniform colour for at least 3 minutes.



- For a smooth and homogenous paste, it is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.

Application.

Fill the grouting material in the joints completely and thoroughly with a hard rubber float or steel trowel leaving no voids. Work on a small area at a time.

- Epoxy grouting material should not be spread on tiles as cement-based products. Once the epoxy hardens, it will be very difficult to remove the material residues on tiles. Besides, this application method will provide savings in quantity and easiness in cleaning.



- Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the grouting material within the joints may be dragged from the joints causing a deformed grout surface. Always follow the same direction across tiles when applying the grouting material. If the joints are wide, particular care is required.

Cleaning.

Time for cleaning the excess grouting material from tile surface is when the grout has started to dry. Duration may vary due to ambient temperature (longer in lower temperatures, shorter at higher temperatures).

- Exact time to start cleaning may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.



- Warm and clean water should be used for cleaning process.

- Use cleaning pads, particularly designed for epoxy grouting works. As the first phase of cleaning process, select a thick textured pad for rough cleaning. Move the pad in circular motion across the tiles in order not to cause any deformations.



- In the second phase of cleaning process, select a thin textured pad for smooth cleaning and apply as described above.



- Final cleaning and rinsing should be done with a damp sponge. Use only clean and non-chalky water to dampen the pads and sponge.



- Move the sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved.

- If any stickiness is felt when touched on the tile surface, repeat final cleaning.

Precautions.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.

PRECAUTIONS

In fixing transparent and light colored tiles and natural stones, particularly when they are highly porous, the covering material may absorb the grouting material. This causes the formation of stains and colourations visible on the covering surface.

- In fixing porous tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and colourations.

The grouting material may be perceived with a different tone of its colour when applied into the joints of tiles with different colour and varying porosity.

- The grouting material is perceived with a darker and intense tone of its colour when applied into the joints of a lighter coloured and higher porosity covering.

Grouting materials contain colour pigments which activate with mixing.

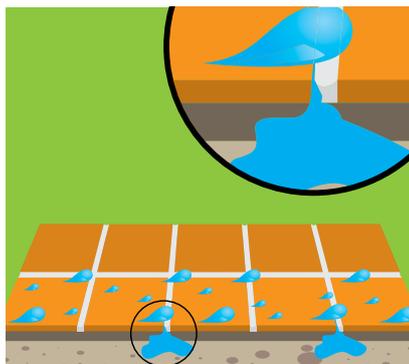
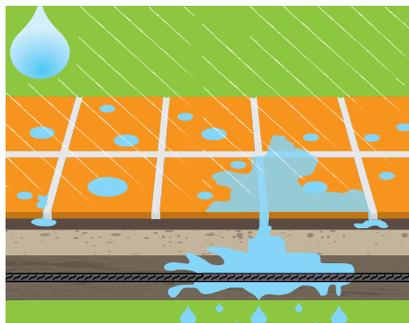
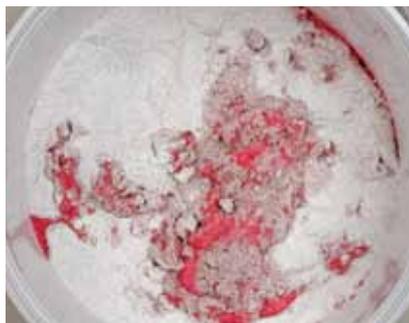
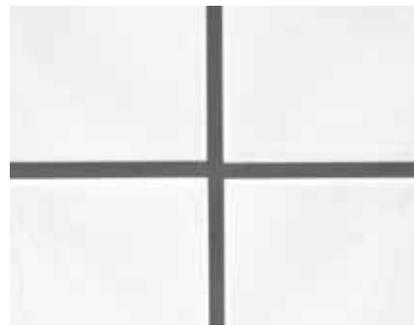
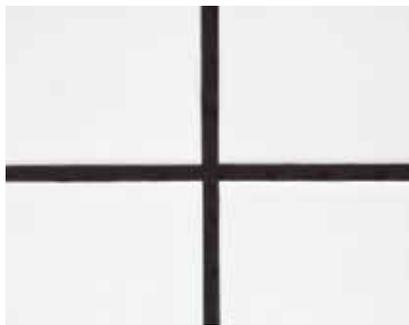
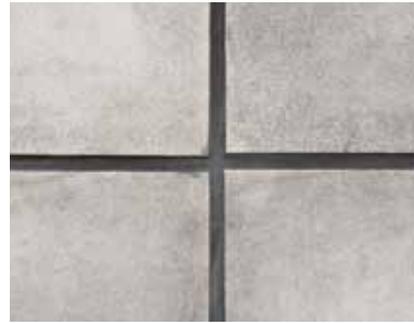
- For powder (cement based) grouting materials; the colour of the powder form may be in very light colours than the expected final colour.

Cementitious grouting materials, particularly high performance class products, have improved water repellency but not absolutely impermeable.

- Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first.

Before tiling applications in industrial floors, auto services, food factories and etc. the acid and alkali content of the conditions the covering will be exposed to should be determined thoroughly. The chemicals contacting with tile grouts may have hazardous effect, and a pre-testing of grout resistant should be held. Particularly, in tiling application in milk and dairy product factories, it is recommended to consult grouting material producer for technical advice.

- Common cleaning materials like bleach, lime remover and etc. may cause surface discolouration and colour variation. Cleaning of tile grouts should be done with appropriate materials.



When components of the grouting material does not mix homogenously and with specified mixing rates, the final grout performance will fail, and therefore, the grout will easily be removed from its joint.

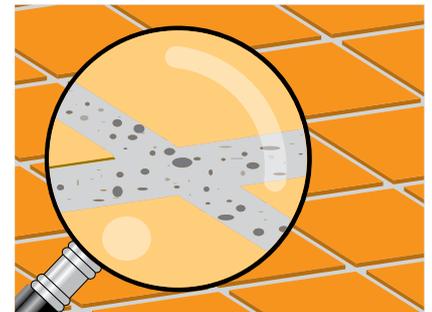
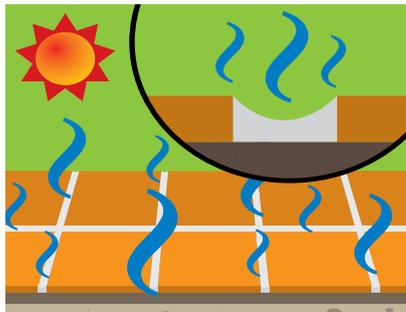
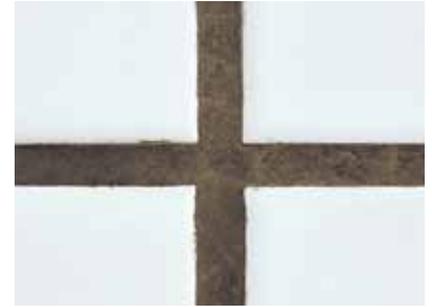
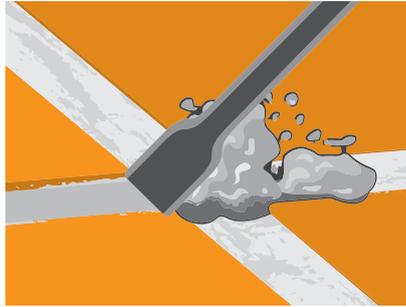
- In the case discussed above, the tile grout will not have the expected colour performance while forming discolouration and colour variation along grouts.

Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wide-ness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material.

- Expansion joints should be insulated by using proper profiles or mastics. CG or RG class grouting materials are not appropriate for expansion joints.

If cement based grouting material is mixed with more mixing water than it is specified, sudden and severe drying of the mixing water is possible, particularly in hot and dry conditions.

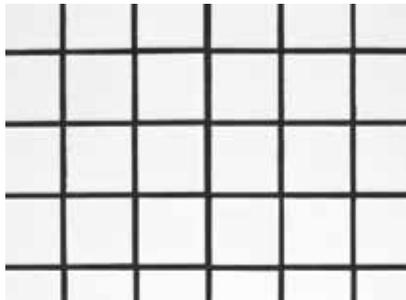
- Discrete holes and grains will form on the grout surfaces exposed to the drying effect described above.



Efflorescence effect.

In case of a false grouting application of the cement based grouting material, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours will form.

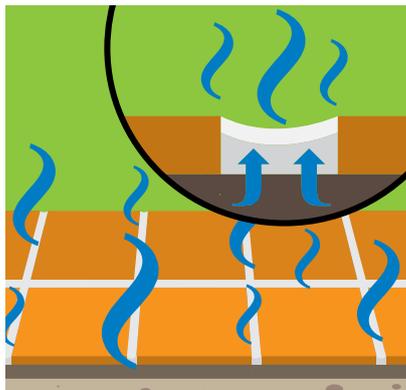
- As the excessive mixing water of the grout or adhesive will dry through the grout, the water will carry dissolved salts (as by product of the hydration process of cement and water) and cause a white deposit on the surface of the grout, known as efflorescence (whitening)



The efflorescence effect may exacerbate with increased amount of the drying water.

- Efflorescence can sometimes happen anyway but chances are increased if more water is dried through the grout. If the joints are grouted before the drying of the adhesive is complete, water will be trapped. Trapped water will increase drying water amount.

- Wet grouting material mixed with more water than specified, using a wet sponge for cleaning in grouting application or exposing of the grout surface to water very soon after application, all these conditions will increase the amount of water dried. Thus, possibly the efflorescence effect will be exacerbated.



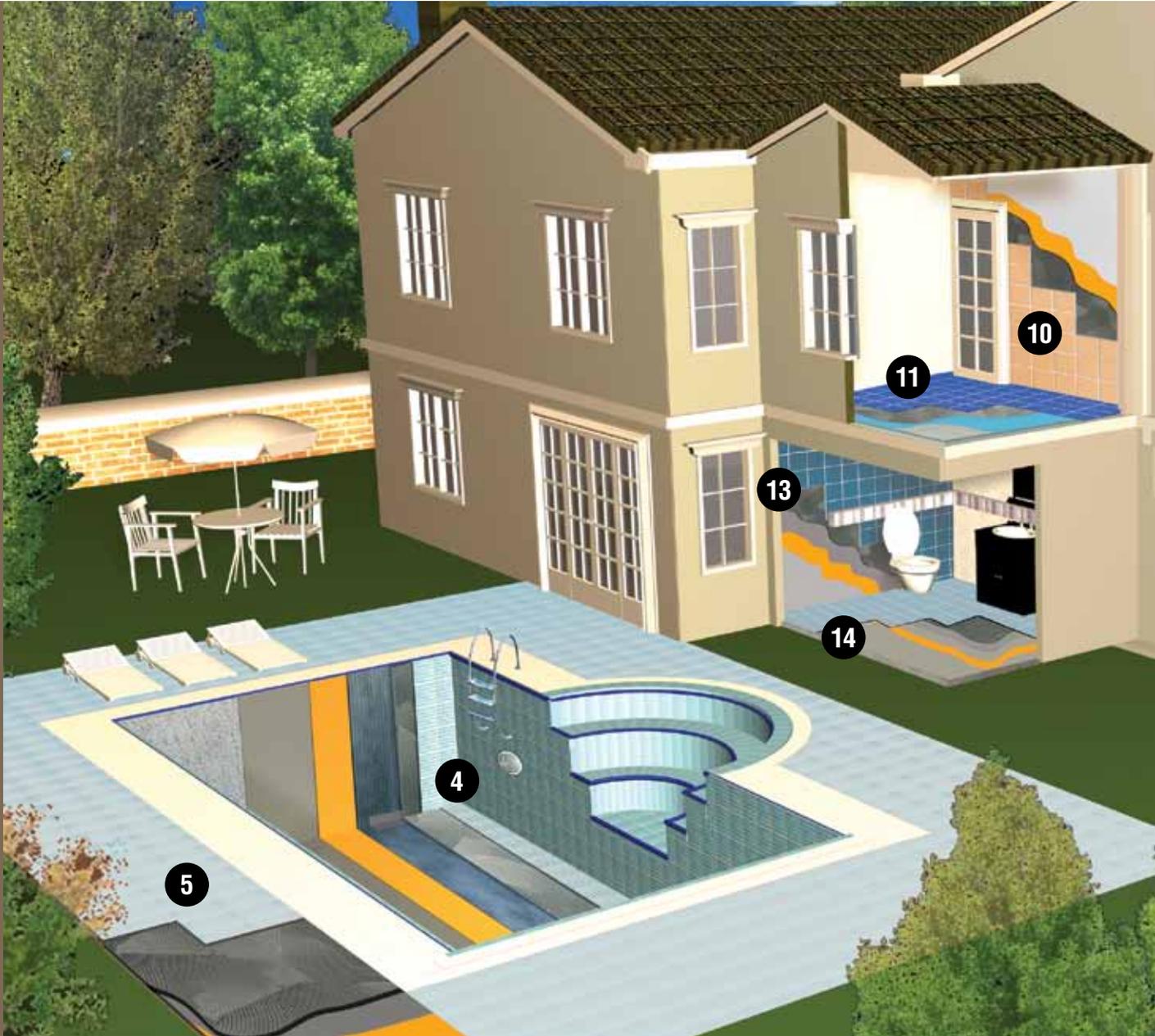


GROUTING JOINTS



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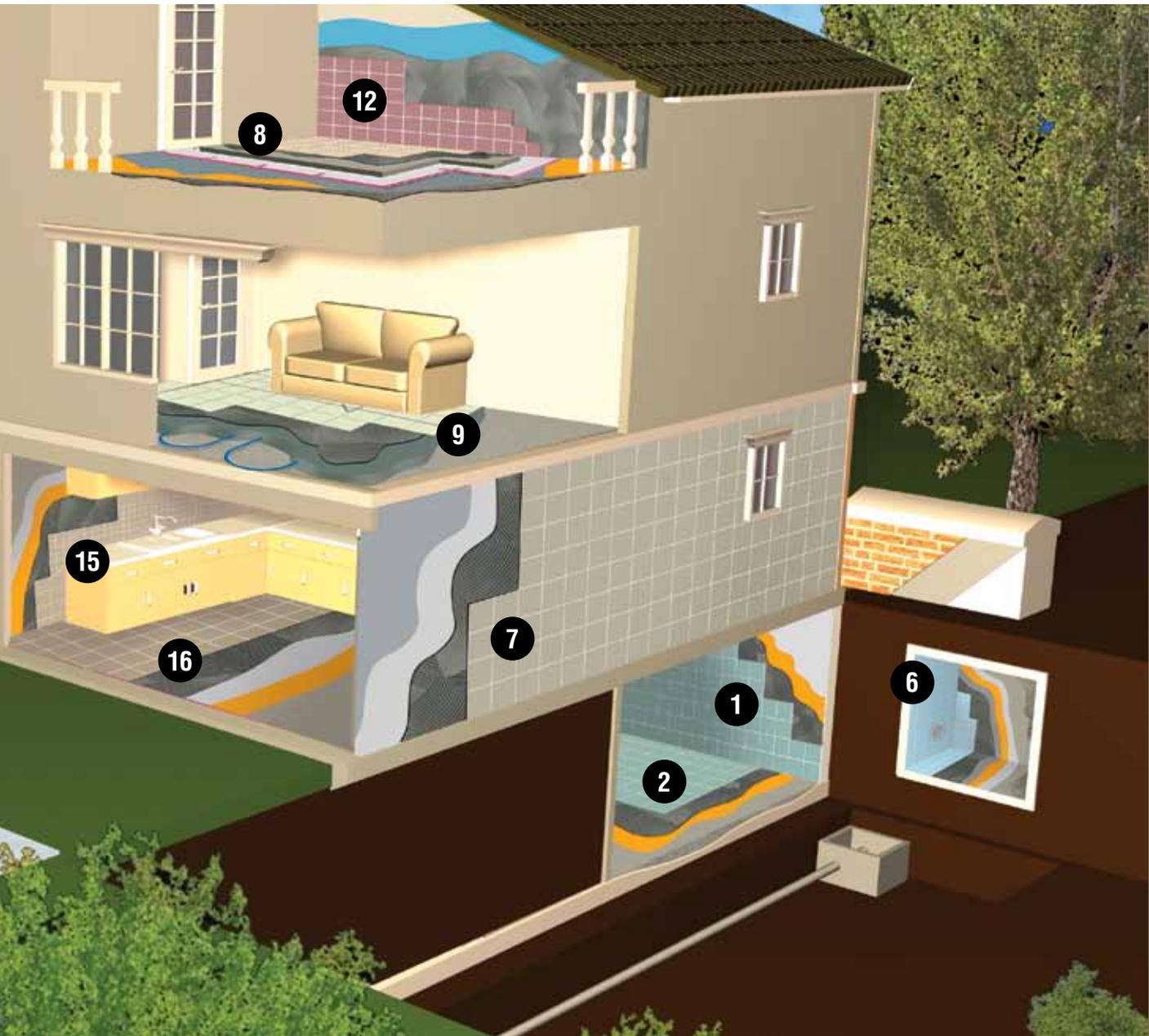
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TILING ON CEMENT BASED PLASTERS

SURFACE PREPARATION

- Do not tile onto new render or concrete. Leave plaster or concrete for at least 6 weeks before tiling. Due to high water absorption ratio of wall tiles and different stresses forming between adhesive and plaster, capillary cracks will appear on the plaster when it does not complete its final set time.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with surface smoothing plasters.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

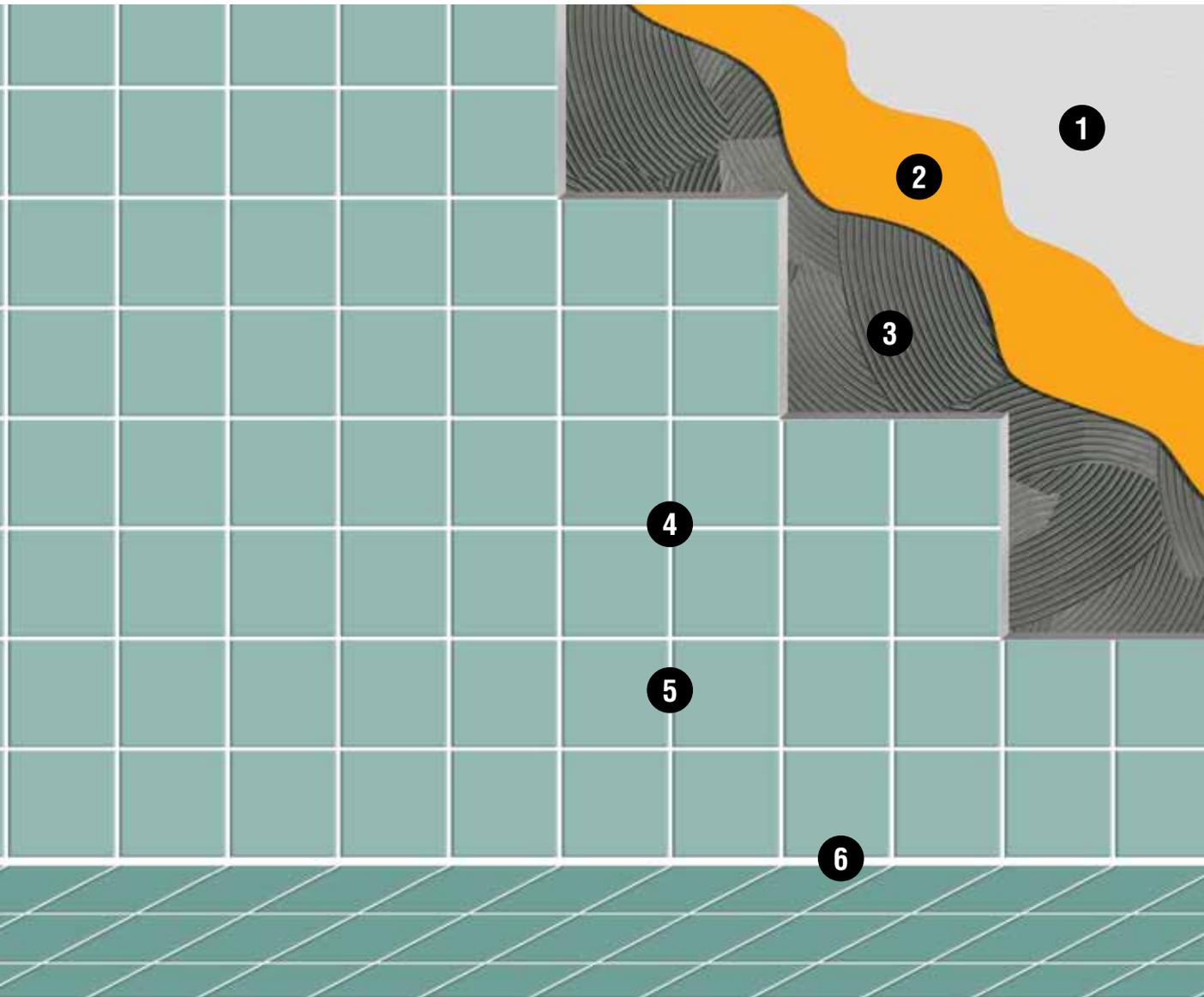
- VitrA Fix FILM (page 130)
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- VitrA Fix FLEX 0-3 mm (page 118)
- VitrA Fix FLEX 3-10 mm (page 120)
- VitrA Fix NET (page 134)

APPLICATION TECHNIQUE

- High porosity substrates should be primed with **VitrA Fix FILM** before fixing. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to next application.
- For fixing high porosity wall tiles ($\leq 33 \times 33$ cm) select **VitrA Fix FIXER**; for fixing low porosity porcelain tiles, glass tiles and mosaics ($< 30 \times 60$ cm) select **VitrA Fix FLEX PORSELEN**.
- Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes $> 33 \times 33$ cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60×60 cm.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select one of **VitrA Fix 1-6 mm**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix FLEX 0-3 mm** according to technical requirements.
- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- For a easier application and to ensure full final product performance, the

- grout should be applied at an ambient temperature range of $+10^{\circ}\text{C} - +25^{\circ}\text{C}$.
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.

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CEMENT BASED PLASTER

1

Vitra Fix FLEX PORSELEN
or
Vitra Fix FIXER
(Ceramic tile adhesive)

2

Vitra Fix FILM
(Synthetic resin based primer)

3

Vitra Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
or
Vitra Fix FIXER
(Ceramic tile adhesive)

4

Vitra Fix FLEX 0-3 mm
(Flexible, fine grained grouting material)
or
Vitra Fix 1-6 mm
(Grouting material)
or
Vitra Fix FLEX 3-10 mm
(Flexible grouting material)

5

Vitra Fix NET
(Acid-based, liquid tile cleaning material)

6

Vitra Fix SM 810
(Neutral antibacterial silicone sealant)
or
Vitra Fix MS 02
(Single component hybrid joint fill mastic)

TILING ON CEMENT BASED FLOORS

SURFACE PREPARATION

- Do not tile onto new screed or concrete. Leave screed or concrete for at least 6 weeks before tiling. Duration may extend in lower temperatures and/or high humidity conditions. The screed should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with flooring products (**VitrA Fix S 30** is recommended).

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- **VitrA Fix FILM** (page 130)
- **VitrA Fix FIXER** (page 90)
- **VitrA Fix FLEX PORSELEN** (page 96)
- **VitrA Fix LATEX** (page 132)
- **VitrA Fix 1-6 mm** (page 116)
- **VitrA Fix FLEX 0-3 mm** (page 118)
- **VitrA Fix FLEX 3-10 mm** (page 120)
- **VitrA Fix NET** (page 134)
- **VitrA Fix SM 810** (page 158)
- **VitrA Fix MS 02** (page 160)

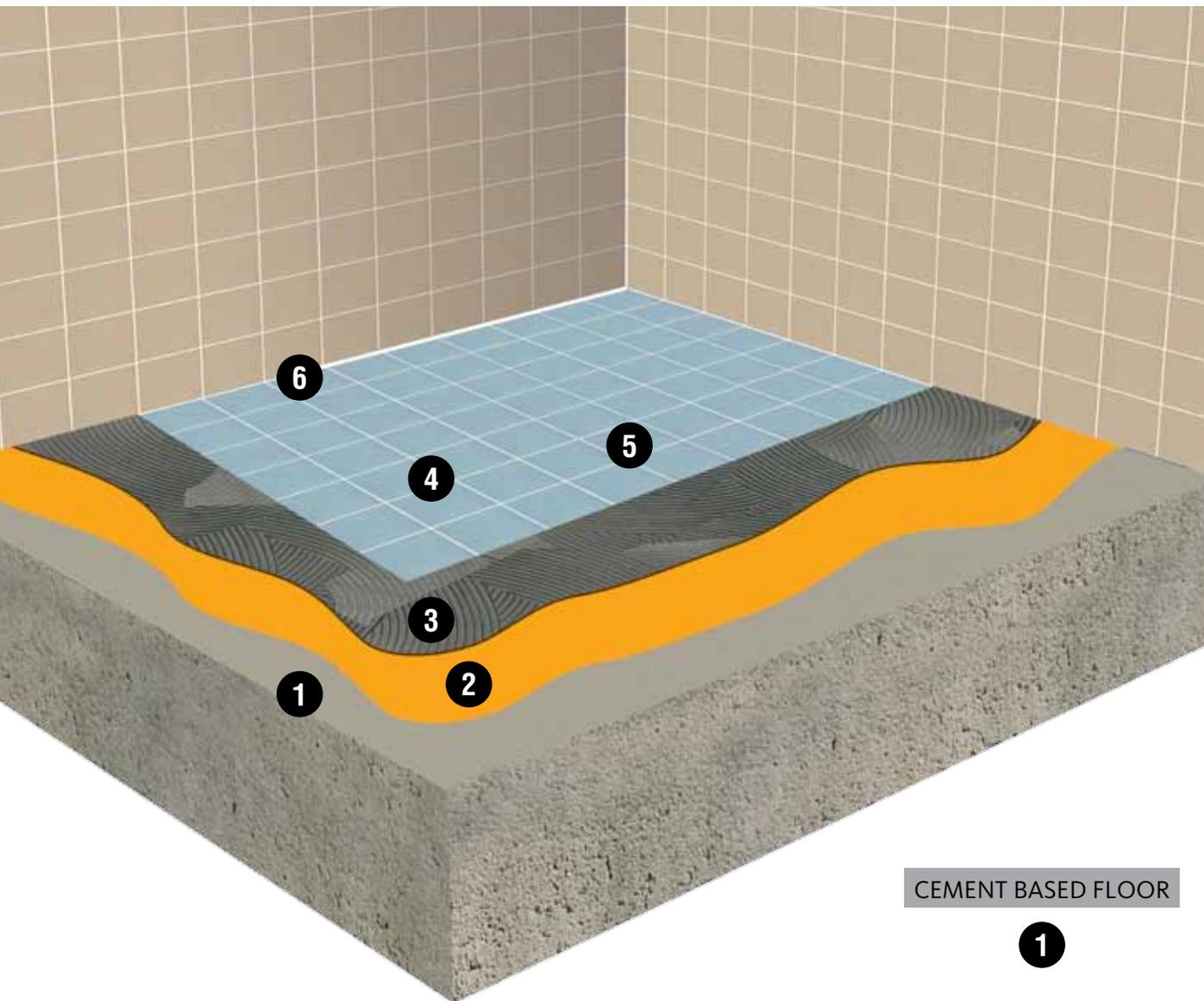
APPLICATION TECHNIQUE

- High porosity substrates should be primed with **VitrA Fix FILM** before fixing. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to next application.
- For fixing high porosity floor tiles ($\leq 33 \times 33$ cm) select **VitrA Fix FIXER**; for fixing low porosity porcelain tiles, glass tiles and mosaics ($< 30 \times 60$ cm) select **VitrA Fix FLEX PORSELEN**.
- Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes $> 33 \times 33$ cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60×60 cm.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select one of **VitrA Fix 1-6 mm**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix FLEX 0-3 mm** according to technical requirements.
- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do not add more water into the mixture or re-wet once the mixture is prepared.

This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.

- For an easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of $+10^{\circ}\text{C} - +25^{\circ}\text{C}$.
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum $4 \text{ m} \times 4 \text{ m}$ (for large sized tiles up to $8 \text{ m} \times 8 \text{ m}$) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than $4 \text{ m} \times 4 \text{ m}$, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.
- Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling.
- **VitrA Fix SM 810** sealant or **VitrA Fix MS 02** mastic can be used to fill expansion joints.

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CEMENT BASED FLOOR

1



2

VitrA Fix FILM
(Synthetic resin based primer)



3

VitrA Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
or
VitrA Fix FIXER
(Ceramic tile adhesive)



4

VitrA Fix FLEX 0-3 mm
(Flexible, fine grained grouting material)
or
VitrA Fix FLEX 3-10 mm
(Flexible grouting material)
or
VitrA Fix POOL G 2-10 mm
(Cement based, special, flexible grouting material)



5

VitrA Fix NET
(Acid-based, liquid tile cleaning material)



6

VitrA Fix SM 810
(Neutral antibacterial silicone sealant)

TILING ON INDUSTRIAL FLOORS

SURFACE PREPARATION

- Do not tile onto new screed or concrete. Leave screed or concrete for at least 6 weeks before substrate repairing, surface smoothing and tiling. Duration may extend in lower temperatures and/or high humidity conditions. The screed should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with flooring products (VitrA Fix S 30 is recommended).
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.

SELECTION OF TILES

- Anti-acid porcelain tile of 20x20 cm (water absorption ratio $\leq 0,05\%$) as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- VitrA Fix FILM (page 130)
- VitrA Fix FLOOR PLUS (page 104)
- VitrA Fix EPOXY (page 126)
- VitrA Fix MS 02 (page 160)

APPLICATION TECHNIQUE

- For industrial tiling, compatible products should be selected for corresponding to the movements (expansions and shrinks on floor) caused by thermal and mechanical effects.
- High porosity substrates should be primed with **VitrA Fix FILM** before fixing. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to next application.
- After tonality and calibration controls of the tiles, fixing may commence. For fixing tiles select **VitrA Fix FLOOR PLUS**.
- Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate with a suitable notched trowel to achieve the required bed thickness. For easier application U9, E10 or marble type notched trowels are recommended.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. No hammering on the tile is needed, as the adhesive is pourable and will easily spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To prevent water puddles, particularly for outdoor and wet area applications, the floor should be leveled with an inclined of 3% along the direction of drain.
- Grouting should start after the adhesive has set and dried, at least 6 hours.
- For grouting application select **VitrA Fix EPOXY**. It is epoxy based two component, hygienic, chemicals and abrasion resistant grouting material. It endures to the chemical, mechanical and physical effects the industrial floors are exposed to.
- While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature around +25 °C.
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain. The floor may service to pedestrian traffic 24 hours after grouting and to heavy loads after 72 hours.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement

joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.

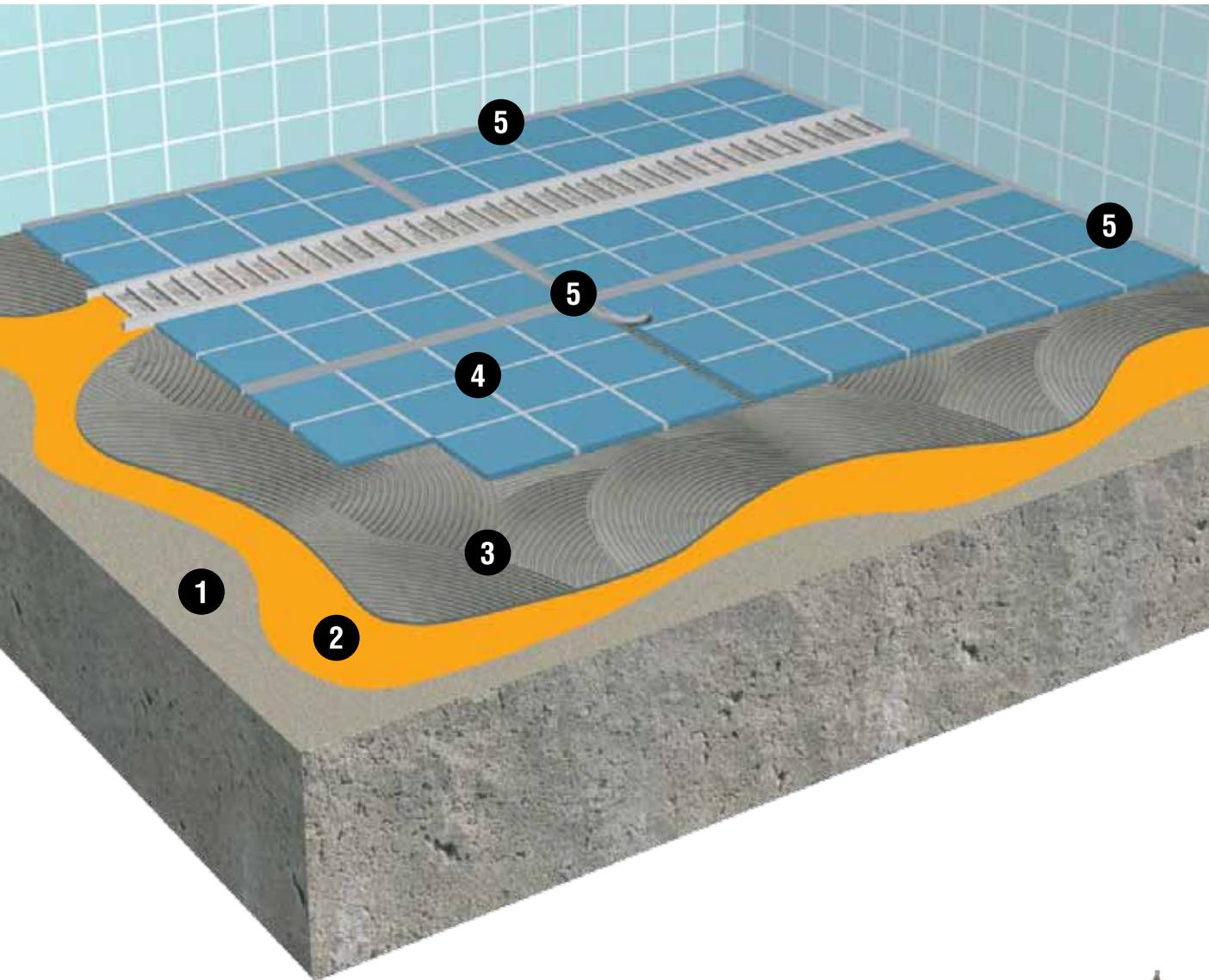
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.

- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4m x 4m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.

- Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling.

- **VitrA Fix MS 02** mastic can be used to fill expansion joints.

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CEMENT BASED SCREED

1



2

Vitra Fix FILM
(Synthetic resin based primer)



3

Vitra Fix FLOOR PLUS
(Flexible and quick-setting
pourable tile adhesive)



4

Vitra Fix EPOXY
(Epoxy resin based
grouting material)



5

Vitra Fix MS 02
(Single component
hybrid joint fill mastic)

WATER PROOFING and TILING ON POOLS

SURFACE PREPARATION

■ Design and construction of the pool should comply with the intended use as it is essential for eliminating potential problems that may arise during application. Dimensions, depth, and overflow system should be designed upon the intended use and format of the pool, and static calculations as well as mechanical installation plans should be performed accordingly. ■ If it is intended to use a top-overflow system, a balancing tank should be constructed with a volume equal to 1/10 of the area of pool where overflowing water is retained before entering the filter. ■ If it is intended to use a top-overflow system, there should be a slope of 5% between edge of pool and overflowing channel. It is required to locate handholds as well as other non-slip elements of pool in accordance with the slope in order to ensure that pool water overflows equally at each side of the pool. ■ Do not tile onto new screed or concrete. Leave fresh casted concrete pool shell to complete its curing for at least 6 weeks before tiling. Duration may extend in lower temperatures and/or high humidity conditions. The shell should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions. ■ The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water. ■ The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with plastering and flooring products.

SELECTION OF TILES

■ Pool tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

■ VitrA Fix RM 27	(page 164)
■ VitrA Fix FILM	(page 130)
■ VitrA Fix POOL	(page 98)
■ VitrA Fix LATEX	(page 132)
■ VitrA Fix PROOF	(page 148)
■ VitrA Fix EPOXY	(page 126)
■ VitrA Fix POOL G 2-10 mm	(page 122)
■ VitrA Fix SM 810	(page 158)
■ VitrA Fix NET	(page 134)

APPLICATION TECHNIQUE

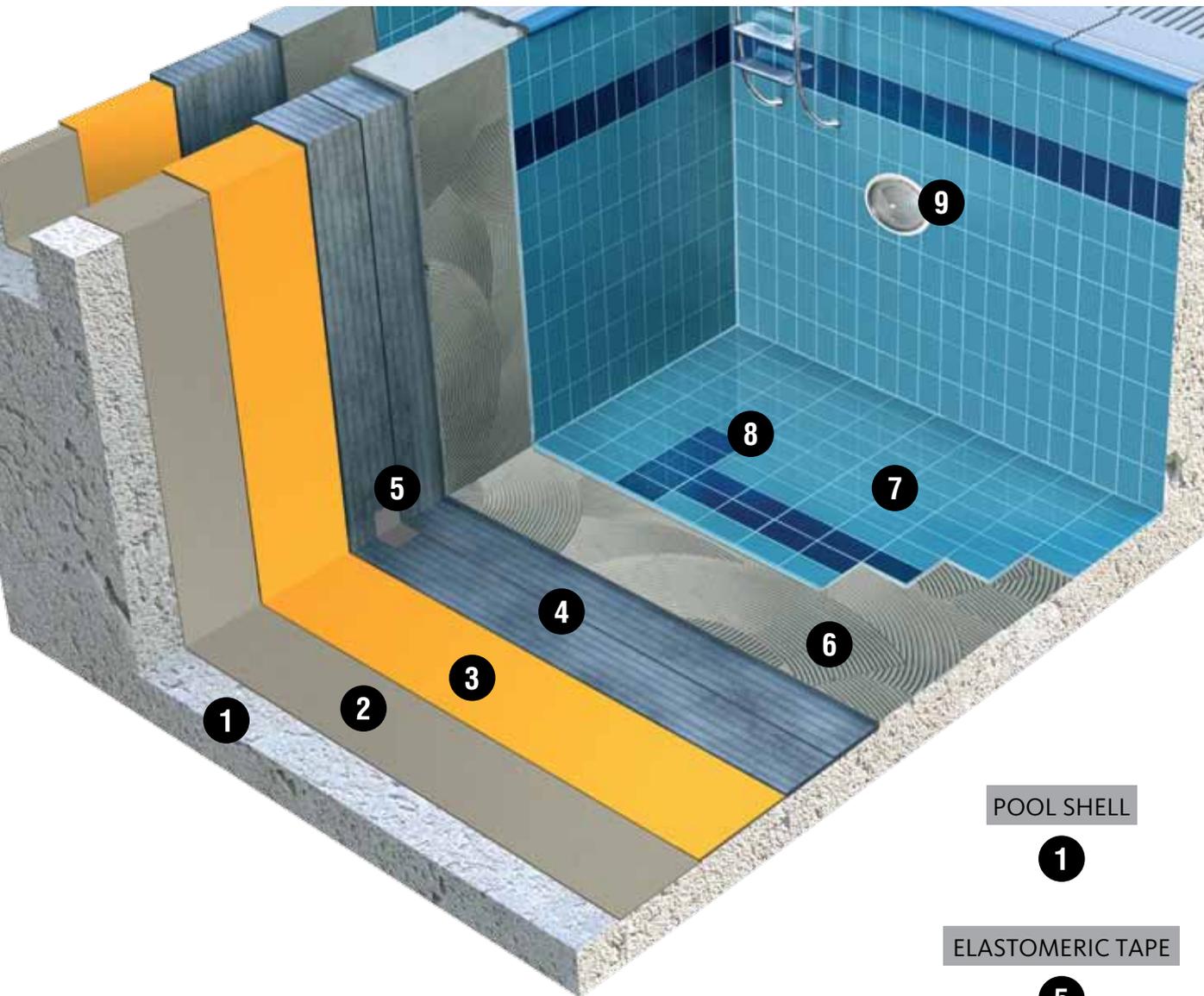
■ All hydraulic connections, discharge pipes, lighting armatures, drains and faucets should have been placed during the construction of the shell. The panel wall formwork of the shell should be succeeded with minimized imperfections in the concrete finish. ■ Before commencing tiling application, pool shell should be filled up with water and waited for 7-10 days to check for any leakages. Any water leakage should be repaired with suitable products. Then, water proofing application should be completed prior to fixing tiles. ■ For repairing and plastering works on shell surfaces, 25 kg of VitrA Fix RM 27 is mixed with 2,0 lt of VitrA Fix LATEX and 4,0 lt of clean water to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should rest for 5 minutes prior to application and should be applied after remixing. ■ VitrA Fix RM 27 should be applied with a maximum thickness of 7 mm. Apply the plaster following the instructions on product packaging and technical data sheets. In case of complete plastering of the surface, wait for at least 6 weeks for the plaster to complete its final setting. ■ Water proofing application should be held on all surfaces of shell with VitrA Fix PROOF, cement based, two component, and full elastic water proofing material. ■ High porosity substrates should be primed with VitrA Fix FILM before applying VitrA Fix PROOF. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to water proofing application. ■ Mix two components of VitrA Fix PROOF to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should rest for 3 minutes prior to application and should be applied after remixing. ■ VitrA Fix PROOF is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application. ■ 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions). ■ Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above. Insulation details of structures on the covering (such as lighting armatures, discharge pipes, drains and faucets) should be figured out with appropriate water proofing solutions. ■ Application on hot surfaces and during sunny weather is not recommended. Cracks may happen due to sudden shrinkage. ■ Following application must be

done at least 48 hours later after water proofing material has set. ■ For fixing tiles select VitrA Fix POOL. ■ Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistency such that it does not flow when handled with a trowel. The paste should rest for 5 minutes prior to application and should be applied after remixing. ■ Fixing with VitrA Fix POOL: apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved. ■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens. ■ Grouting should start after the adhesive has set and dried. ■ For grouting application select one of VitrA Fix EPOXY or VitrA Fix POOL G 2-10 mm according to technical requirements. These products provide improved water repellency features and resistance to chemicals that the water may contain for hygienic care. ■ While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C. ■ For cementitious grouts; do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours. ■ For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C. ■ Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain. ■ If any stains and residues remain after grouting, wait for 10 days and treat the tile with VitrA Fix NET tile cleaning material to loosen and remove these residues. ■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the substrate and covering. Expansion joints should be insulated by using proper profiles or mastics resistant to continuous water contact. Cementitious grouting materials are not appropriate for expansion joints. ■ Expansion joints should be provided at intersection points of deck and the shell of swimming pool. ■ Insulation details of structures on the covering (such as lighting armatures, discharge pipes, drains and faucets) should be sealed with VitrA Fix SM 810. ■ VitrA Fix MS 02 mastic can be used to fill expansion joints. ■ Wait for at least 7 days before filling the pool with water after finishing all tiling process. ■ Daily filling and discharging rates of water into the pool should be managed according to the specifications. Care should be given to the heating rate of water for thermal pool applications, and a heating rate of 0,25 °C / 1 hour should be ensured. Faster rates than specified may cause expansion problems and deformations on the covering.

TECHNICAL RECOMMENDATIONS

■ In order to prevent any collapse (cave-in) on the swimming-pool ground/floor 1 or 2 years after the application and to prevent displacement of tiles as a consequence of such collapse, filling materials used behind the solid curtain walls forming the pool and underneath the foundation concrete must be compressed sufficiently. Otherwise, it is likely that the tiles may collapsed, cracks will occur around the pool tiles and shells or will be broken into fragments. ■ If the pool rests upon an earth or ground, the movement of water (water leakage) likely to come from the outside into pool shell must absolutely be prevented. ■ Due care must be exercised to ensure that lighting lamps to be installed inside the pool properly. The selection of lighting solutions and system's, the water insulation must be carried out accordingly. If the lighting is damaged, there might be weak points for water leakage. ■ For over-the-terrace pool applications; due care must be exercise to ensure that expansion joints are used for coating during the tile fixing depending on location of column&beams. If the pool is on the ground, expansion joints must be used for coating with 10-m intervals. It is strongly recommended that expansion joints must not be left inside the pool basin in order to prevent potential water leaks which might be available on pool terrace and basin junction point. Suitable profile solutions or suitable filling mastics resistant to pool water effects are recommended for expansion joints. Use of Polyurethane mastic for expansion joints is recommended. ■ Please contact technical service for more detailed information.

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POOL SHELL

1

ELASTOMERIC TAPE

5



2

Vitra Fix RM 27
(Surface smoothing and repairing mortar)
+ Vitra Fix LATEX
(High performance additive)



3

Vitra Fix FILM
(Synthetic resin based primer)



4

Vitra Fix PROOF
(Two component, full elastic, cement-based water proofing material)



6

Vitra Fix POOL
(High performance adhesive for pool tiles)



7

Vitra Fix POOL G 2-10 mm
(Cement based, special, flexible grouting material)
or
Vitra Fix EPOXY
(Epoxy resin based grouting material)



8

Vitra Fix NET
(Acid-based, liquid tile cleaning material)



9

Vitra Fix SM 810
(Neutral antibacterial silicone sealant)

TILING ON POOL TERRACES

SURFACE PREPARATION

- Do not tile onto new screed or concrete. Leave screed or concrete for at least 6 weeks before tiling. Duration may extend in lower temperatures and/or high humidity conditions. The screed should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with flooring products.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

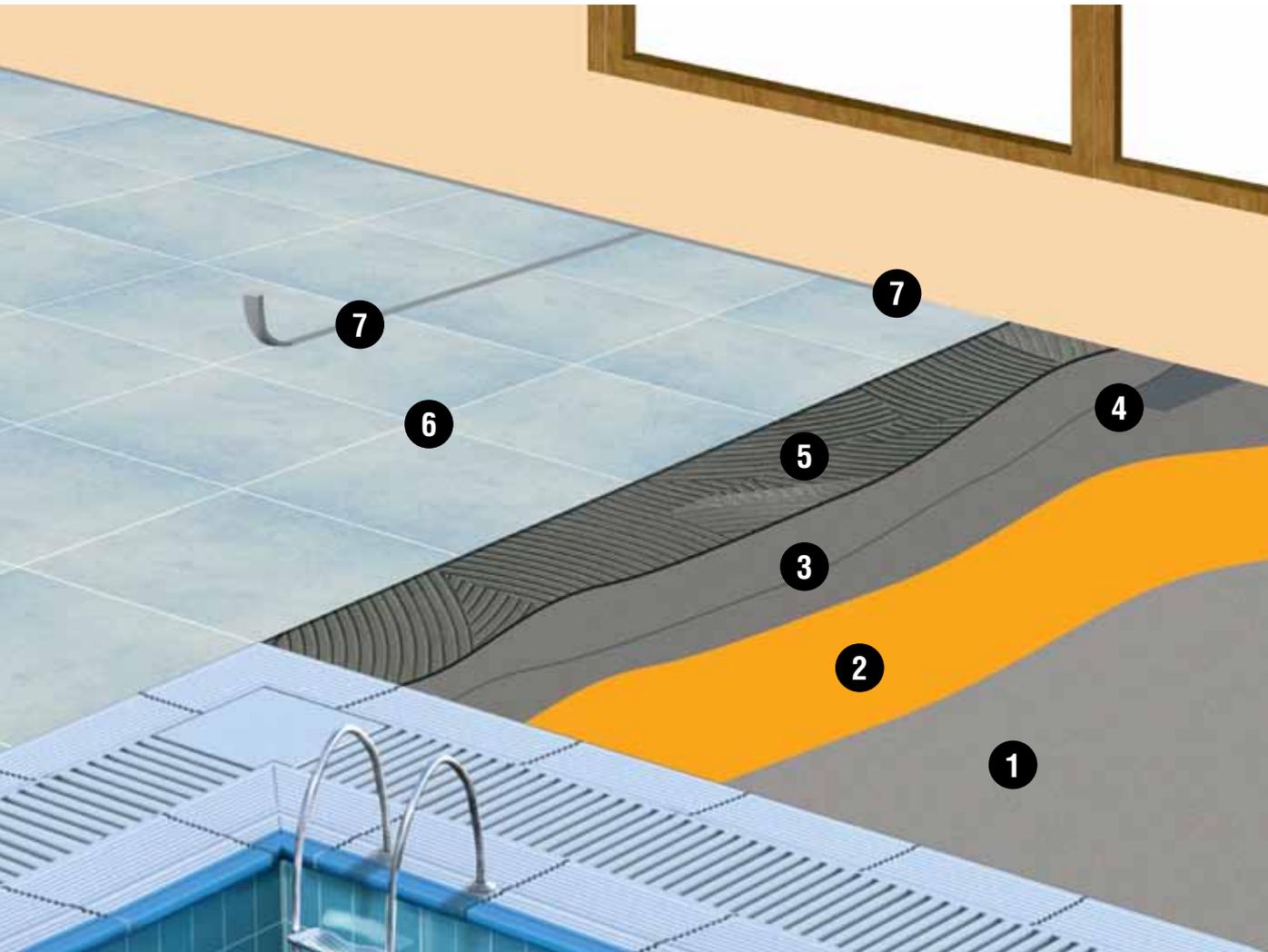
- VitrA Fix FILM (page 130)
- VitrA Fix PROOF (page 148)
- VitrA Fix FLEX PORSELEN (page 96)
- VitrA Fix FLOOR PLUS (page 104)
- VitrA Fix LATEX (page 132)
- VitrA Fix EPOXY (page 126)
- VitrA Fix POOL G 2-10 mm (page 122)
- VitrA Fix FLEX 3-10 mm (page 120)
- VitrA Fix MS 02 (page 160)

APPLICATION TECHNIQUE

■ Before tiling, water proofing application should be held on pool terraces with VitrA Fix PROOF, cement based, two component, and full elastic water proofing material. ■ High porosity substrates should be primed with VitrA Fix FILM before applying VitrA Fix PROOF. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to water proofing application. ■ Mix two components of VitrA Fix PROOF to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should rest for 3 minutes prior to application and should be applied after remixing. ■ VitrA Fix PROOF is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application. ■ 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions). ■ Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above. ■ Application on hot surfaces and during sunny and/or windy weather is not recommended. Cracks may happen due to sudden shrinkage. ■ Following application must be done at least 48 hours later after water proofing material has set. ■ For fixing tiles select VitrA Fix FLEX PORSELEN or VitrA Fix FLOOR PLUS. ■ Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistence such that it does not flow when handled with a trowel. The paste should rest for 3-5 minutes prior to application and should be applied after remixing. ■ Fixing with VitrA Fix FLEX PORSELEN; apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved. To improve the technical performance of the adhesive, it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the

mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX). With additive added, VitrA Fix FLEX PORSELEN can fix tiles in sizes up to 60x60 cm. ■ Fixing with VitrA Fix FLOOR PLUS; Apply the adhesive on the substrate with a suitable notched trowel to achieve the required bed thickness. For easier application U9, E10 or marble type notched trowels are recommended. The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. No hammering on the tile is needed, as the adhesive is pourable and will easily spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved. ■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens. ■ In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used. ■ To improve the technical performance of VitrA Fix FLEX 3-10 mm (improved resistance and flexibility and water repellency features), it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX). ■ To prevent water puddles, particularly for outdoor and wet area applications, the floor should be leveled with an inclined of 3% along the direction of drain. ■ Grouting should start after the adhesive has set and dried. Cementitious grouting material's colour may taint due to adhesive's cement content and colour. ■ For grouting application select one of VitrA Fix EPOXY, VitrA Fix FLEX 3-10 mm, VitrA Fix POOL G 2-10 mm according to technical requirements. These grouts have very low water absorption values and improved technical performance, thus they are ideal for grouting outdoor and wet areas. ■ While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C. ■ For cementitious grouts; do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours. ■ To improve the technical performance of VitrA Fix FLEX 3-10 mm (improved resistance and flexibility and water repellency features), it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX). ■ Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain. ■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints. ■ No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics. ■ If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4 m x 4 m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building. ■ Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling. ■ VitrA Fix MS 02 mastic can be used to fill expansion joints.

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CONCRETE

ELASTOMERIC TAPE

1

4



2

3

5

6

7

VitrA Fix FILM
(Synthetic resin based primer)

VitrA Fix PROOF
(Two component, full elastic,
cement-based water proofing
material)

VitrA Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
+ VitrA Fix LATEX
(High performance additive)

VitrA Fix EPOXY
(Epoxy resin based
grouting material)
or
VitrA Fix FLEX 3-10 mm
(Flexible grouting material)
or
VitrA Fix POOL G 2-10 mm
(Cement based, special, flexible grouting material)

VitrA Fix MS 02
(Single component
hybrid joint fill mastic)

WATER PROOFING and TILING ON WATER-TANKS

SURFACE PREPARATION

- Do not tile onto new screed or concrete (water-tank shell). Leave concrete shell for at least 6 weeks before tiling. Duration may extend in lower temperatures and/or high humidity conditions. The shell should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with plastering and flooring products.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

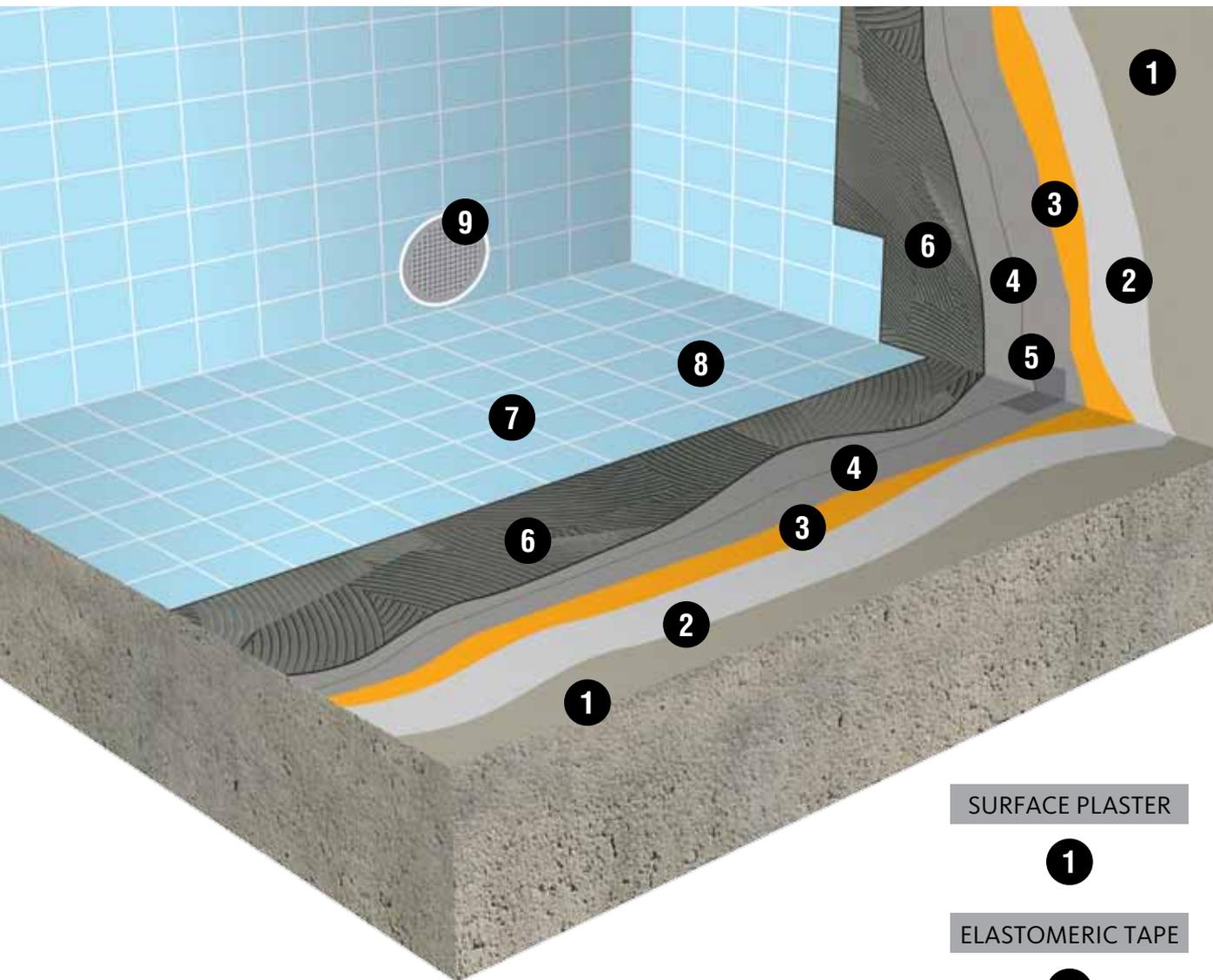
- VitrA Fix RM 27 (page 164)
- VitrA Fix FILM (page 130)
- VitrA Fix POOL (page 98)
- VitrA Fix LATEX (page 132)
- VitrA Fix PROOF (page 148)
- VitrA Fix EPOXY (page 126)
- VitrA Fix POOL G 2-10 mm (page 122)
- VitrA Fix NET (page 134)
- VitrA Fix SM 810 (page 158)

APPLICATION TECHNIQUE

■ All hydraulic connections, discharge pipes, lighting armatures, drains and faucets should have been placed during the construction of the shell. The pannel wall formwork of the shell should be succeeded with minimized imperfections in the concrete finish. ■ Before commencing tiling application, tank shell should be filled up with water and waited for 7-10 days to check for any leakages. Any water leakage should be repaired with suitable products. Then, water proofing application should be completed prior to fixing tiles. ■ For repairing and plastering works on shell surfaces, 25 kg of VitrA Fix RM 27 is mixed with 2,0 lt of VitrA Fix LATEX and 4,0 lt of clean water to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should rest for 5 minutes prior to application and should be applied after remixing. ■ VitrA Fix RM 27 should be applied with a maximum thickness of 7 mm. Apply the plaster following the instructions on product packaging and technical data sheets. In case of complete plastering of the surface, wait for at least 6 weeks for the plaster to complete its final setting. ■ Water proofing application should be held on all surfaces of shell with VitrA Fix PROOF, cement based, two component, and full elastic water proofing material. ■ High porosity substrates should be primed with VitrA Fix FILM before applying VitrA Fix PROOF. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to water proofing application. ■ Mix two components of VitrA Fix PROOF to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should rest for 3 minutes prior to application and should be applied after remixing. ■ VitrA Fix PROOF is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application. ■ 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions). ■ Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above. Insulation details of structures on the covering (such as lighting armatures, discharge pipes, drains and faucets) should be figured out with appropriate water proofing solutions. ■ Applica-

tion on hot surfaces and during sunny weather is not recommended. Cracks may happen due to sudden shrinkage. ■ Following application must be done at least 48 hours later after water proofing material has set. ■ For fixing tiles select VitrA Fix FLEX POOL. ■ Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistence such that it does not flow when handled with a trowel. The paste should rest for 5 minutes prior to application and should be applied after remixing. ■ Fixing with VitrA Fix POOL; apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved. ■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens. ■ Grouting should start after the adhesive has set and dried. ■ For grouting application select one of VitrA Fix EPOXY or VitrA Fix POOL G 2-10 mm according to technical requirements. These products provide improved water repellency features and resistance to chemicals that the water may contain for hygienic care. ■ While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C. ■ For cementitious grouts; do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker grouting colours. ■ For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C. ■ Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain. ■ If any stains and residues remain after grouting, wait for 10 days and treat the tile with VitrA Fix NET tile cleaning material to loosen and remove these residues. ■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the substrate and covering. Expansion joints should be insulated by using proper profiles or mastics resistant to continuous water contact. Cementitious grouting materials are not appropriate for expansion joints. ■ Insulation details of structures on the covering (such as lighting armatures, discharge pipes, drains and faucets) should be sealed with VitrA Fix SM 810. ■ VitrA Fix MS 02 mastic can be used to fill expansion joints. ■ Wait for at least 7 days before filling the tank with water after finishing all tiling process. ■ Daily filling and discharging rates should be managed according to the specifications. Faster rates than specified may cause expansion problems and deformations on the covering.

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SURFACE PLASTER

1

ELASTOMERIC TAPE

5



2

VitrA Fix RM 27
(Surface smoothing and
repairing mortar)
+ VitrA Fix LATEX
(High performance additive)



3

VitrA Fix FILM
(Synthetic resin based primer)



4

VitrA Fix PROOF
(Two component, full elastic,
cement-based water proofing
material)



6

VitrA Fix POOL
(High performance adhesive for pool tiles)



7

VitrA Fix EPOXY
(Epoxy resin based
grouting material)
or
VitrA Fix POOL G 2-10 mm
(Cement based, special, flexible
grouting material)



8

VitrA Fix NET
(Acid-based, liquid
tile cleaning
material)



9

VitrA Fix SM 810
(Neutral antibacterial
silicone sealant)

TILING ON FACADES (BIG SIZED TILES)

SURFACE PREPARATION

- Do not tile onto new render or concrete. Leave plaster or concrete for at least 6 weeks before tiling. Due to high water absorption ratio of wall tiles and different stresses forming between adhesive and plaster, capillary cracks will appear on the plaster when it does not complete its final set time. Duration may extend in lower temperatures and/or high humidity conditions.
- For exposed concrete walls wait for at least 3 months for curing.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with surface smoothing plasters.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- VitrA Fix RM 27 (page 164)
- VitrA Fix LATEX (page 132)
- VitrA Fix ULTRA SYSTEM (page 106)
- VitrA Fix FLEX 3-10 mm (page 120)
- VitrA Fix MS 02 (page 160)

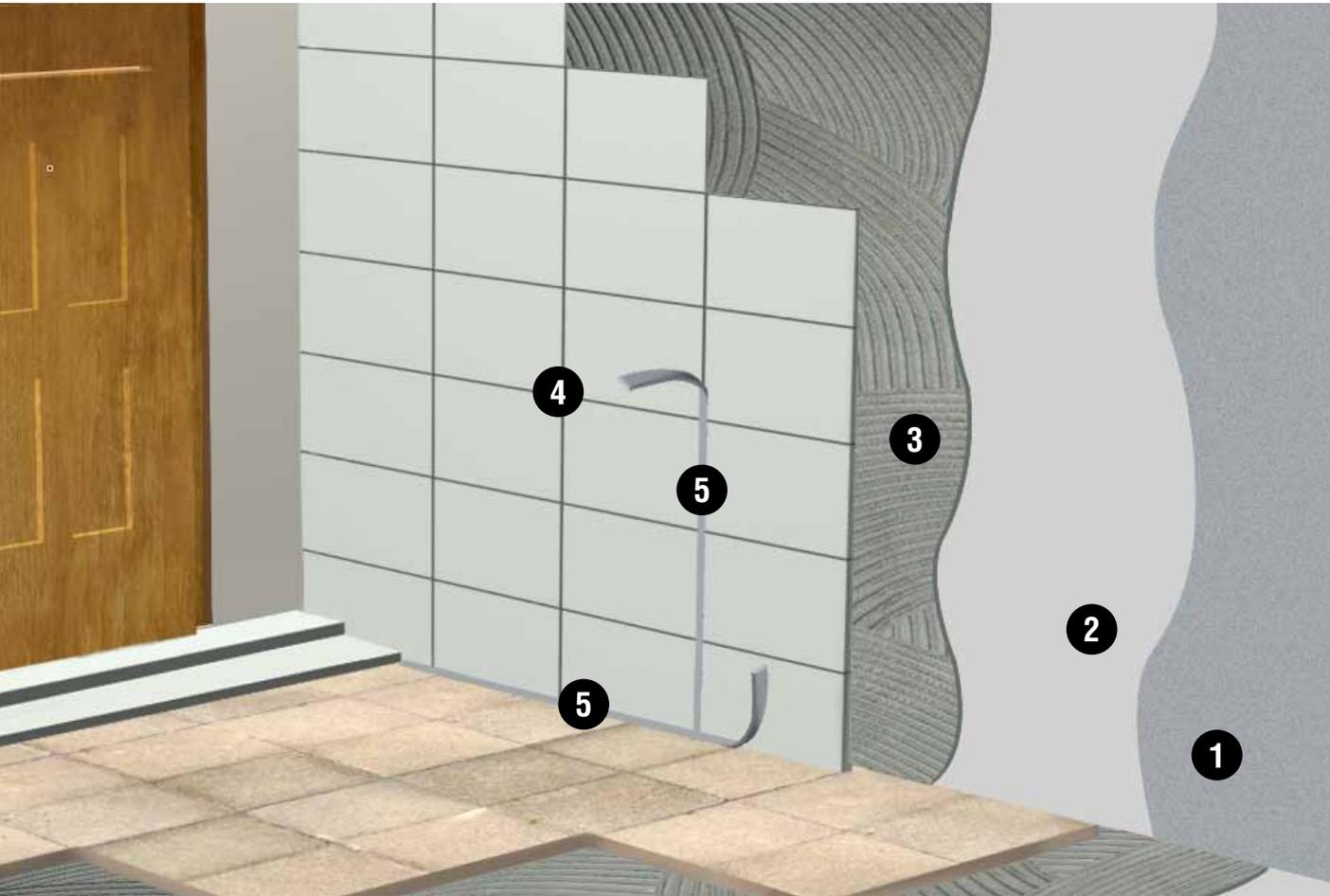
APPLICATION TECHNIQUE

- For facade tiling, compatible products should be selected for corresponding to the movements (expansions and shrinks on floor) caused by thermal and mechanical effects.
- If plastering for surface smoothing or repairing surface damages is needed, select **VitrA Fix RM 27** surface smoothing and repair mortar. **VitrA Fix RM 27** should be applied with a maximum thickness of 7 mm. Prepare and apply the plaster following the instructions on product packaging and technical data sheets. In case of complete plastering of the surface, wait for at least 6 weeks for the plaster to complete its final setting.
- To improve the technical performance of **VitrA Fix RM 27**, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping. Application on hot surfaces and during sunny and/or windy weather is not recommended.
- For fixing select **VitrA Fix ULTRA SYTEM**.
- Mix two components of **VitrA Fix ULTRA SYTEM** to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- In external facade tiling of large sized tiles; double buttering method should be applied. Apply the adhesive on the substrate (adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- Be advised that joint widths should be minimum 4 mm.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select **VitrA Fix FLEX 3-10 mm**. To improve the technical performance, it is recommended to add **VitrA Fix LATEX** into the

mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker grouting colours.
- For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C.
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the surface and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- On facades; along storey transitions, in internal corners, overlapping wall coverings, wall-floor intersections and on areas > 3 m x 3m expansion joints should be applied. Expansion joints should have minimum width of 10 mm. Skirting should be fixed upon to the completion of tiling.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- **VitrA Fix MS 02** sealant can be used to fill expansion joints.
- When tiling on walls, the weight of tiles per m2 should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

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CEMENT BASED SCREED

1



2



VitrA Fix RM 27
(Surface smoothing and repairing mortar)
+ VitrA Fix LATEX
(High performance additive)



3



VitrA Fix ULTRA SYSTEM
(Two components, high performance tile adhesive)
+ VitrA Fix LATEX
(High performance additive)



4



VitrA Fix FLEX 3-10 mm
(Flexible grouting material)
+ VitrA Fix LATEX
(High performance additive)



5



VitrA Fix MS 02
(Single component hybrid joint fill mastic)

TILING ON BALCONIES and TERRACES

SURFACE PREPARATION

■ Do not tile onto new screed or concrete. Leave screed or concrete for at least 6 weeks before tiling. Duration may extend in lower temperatures and/or high humidity conditions. The screed should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions. ■ The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water. ■ The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with flooring products.

SELECTION OF TILES

■ Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

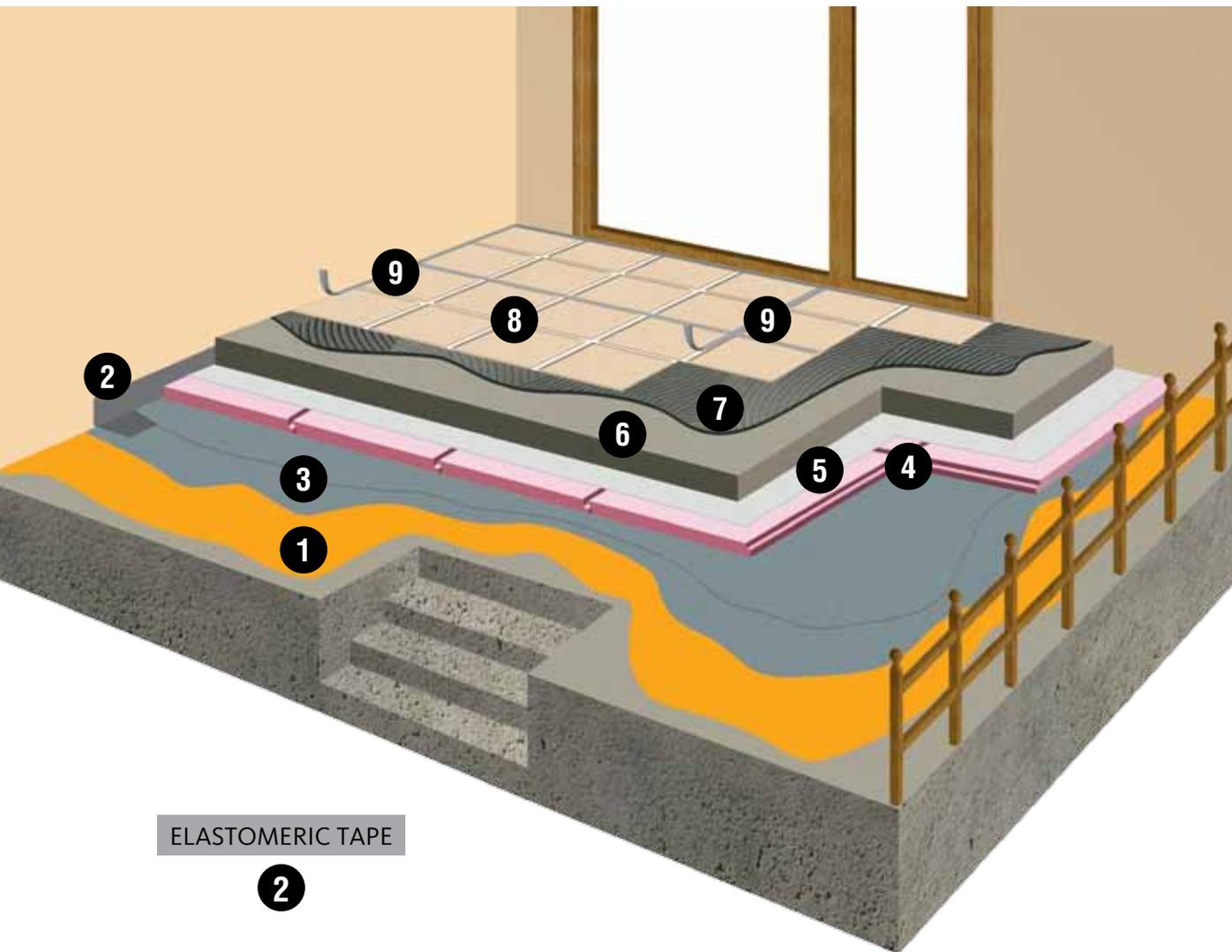
■ VitrA Fix FILM	(page 130)
■ VitrA Fix PROOF	(page 148)
■ VitrA Fix FLOOR PLUS	(page 104)
■ VitrA Fix FLEX PORSELEN	(page 96)
■ VitrA Fix LATEX	(page 132)
■ VitrA Fix EPOXY	(page 126)
■ VitrA Fix POOL G 2-10 mm	(page 122)
■ VitrA Fix FLEX 3-10 mm	(page 120)
■ VitrA Fix MS 02	(page 160)

APPLICATION TECHNIQUE

■ On terraces, before fixing tiles water proofing and thermal insulation applications should be completed, respectively. ■ Water proofing application should be held on pool terraces with VitrA Fix PROOF, cement based two component, and full elastic water proofing material. ■ High porosity substrates should be primed with VitrA Fix FILM before applying VitrA Fix PROOF. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to water proofing application. ■ Mix two components of VitrA Fix PROOF to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should rest for 3 minutes prior to application and should be applied after remixing. ■ VitrA Fix PROOF is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application. ■ 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions). ■ Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above. ■ Application on hot surfaces and during sunny and/or windy weather is not recommended. Cracks may happen due to sudden shrinkage. ■ Following application must be done at least 48 hours later after water proofing material has set. ■ For thermal insulation, XPS type polystyrene thermal insulation boards should be selected in the format and installed as recommended by manufacturers. After covering the floor with XPS boards seamlessly, the boards should be covered with a compatible protective mat and cement screed finish of minimum 5 cm thickness on top of mat. ■ For fixing tiles select VitrA Fix FLEX PORSELEN or VitrA Fix FLOOR PLUS. ■ Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistence such that it does not flow when handled with a trowel. The paste should rest for 3-5 minutes prior to application and should be applied after remixing. ■ Fixing with VitrA Fix FLEX PORSELEN; apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. The tiles must be fixed within the open time of adhesive and pressed

on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved. To improve the technical performance of the adhesive, it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX). With additive added, VitrA Fix FLEX PORSELEN can fix tiles in sizes up to 60x60 cm. ■ Fixing with VitrA Fix FLOOR PLUS; Apply the adhesive on the substrate with a suitable notched trowel to achieve the required bed thickness. For easier application U9, E10 or marble type notched trowels are recommended. The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. No hammering on the tile is needed, as the adhesive is pourable and will easily spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved. ■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens. ■ In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used. ■ To prevent water puddles, particularly for outdoor and wet area applications, the floor should be leveled with an inclined of 3‰ along the direction of drain. ■ Grouting should start after the adhesive has set and dried. Cementitious grouting material's colour may taint due to adhesive's cement content and colour. ■ For grouting application select one of VitrA Fix EPOXY, VitrA Fix FLEX 3-10 mm, VitrA Fix POOL G 2-10 mm according to technical requirements. These grouts have very low water absorption values and improved technical performance, thus they are ideal for grouting outdoor and wet areas. ■ While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C. ■ For cementitious grouts; do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker grouting colours. ■ To improve the technical performance of VitrA Fix FLEX 3-10 mm (improved resistance and flexibility and water repellency features), it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX). ■ Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain. ■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints. ■ No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics. ■ If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4 m x 4 m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building. ■ Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling. ■ VitrA Fix MS 02 mastic can be used to fill expansion joints.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



ELASTOMERIC TAPE

2

XPS - THERMAL INSULATION BOARD

4

PROTECTING FELT

5

SLOPED CONCRETE

6



1

VitrA Fix FILM
(Synthetic resin based primer)



3

VitrA Fix PROOF
(Two component, full elastic, cement-based water proofing material)



7

VitrA Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
+ VitrA Fix LATEX
(High performance additive)
or
VitrA Fix FLOOR PLUS
(Flexible and quick-setting pourable tile adhesive)



8

VitrA Fix EPOXY
(Epoxy resin based grouting material)
or
VitrA Fix FLEX 3-10 mm
(Flexible grouting material)
or
VitrA Fix POOL G 2-10 mm
(Cement based, special, flexible grouting material)



9

VitrA Fix MS 02
(Single component hybrid joint fill mastic)

TILING ON UNDER-HEATING FLOORS

SURFACE PREPARATION

- Heating elements should be embedded in screed which has a minimum thickness of 7,5 mm.
- Do not tile onto new screed. Leave screed for at least 6 weeks before substrate repairing, surface smoothening and tiling. Duration may extend in lower temperatures and/or high humidity conditions. The screed should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothened with flooring products (**VitrA Fix S 30** is recommended).
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- Surface should have been heated (to the desired temperature) for minimum 3 days before application, and then the surface temperature should be allowed to reduce down to ambient temperature. Purpose of this operation is to determine deformations and cracks which may form on floor screed due to heating.

SELECTION OF TILES

- Floor and porcelain tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

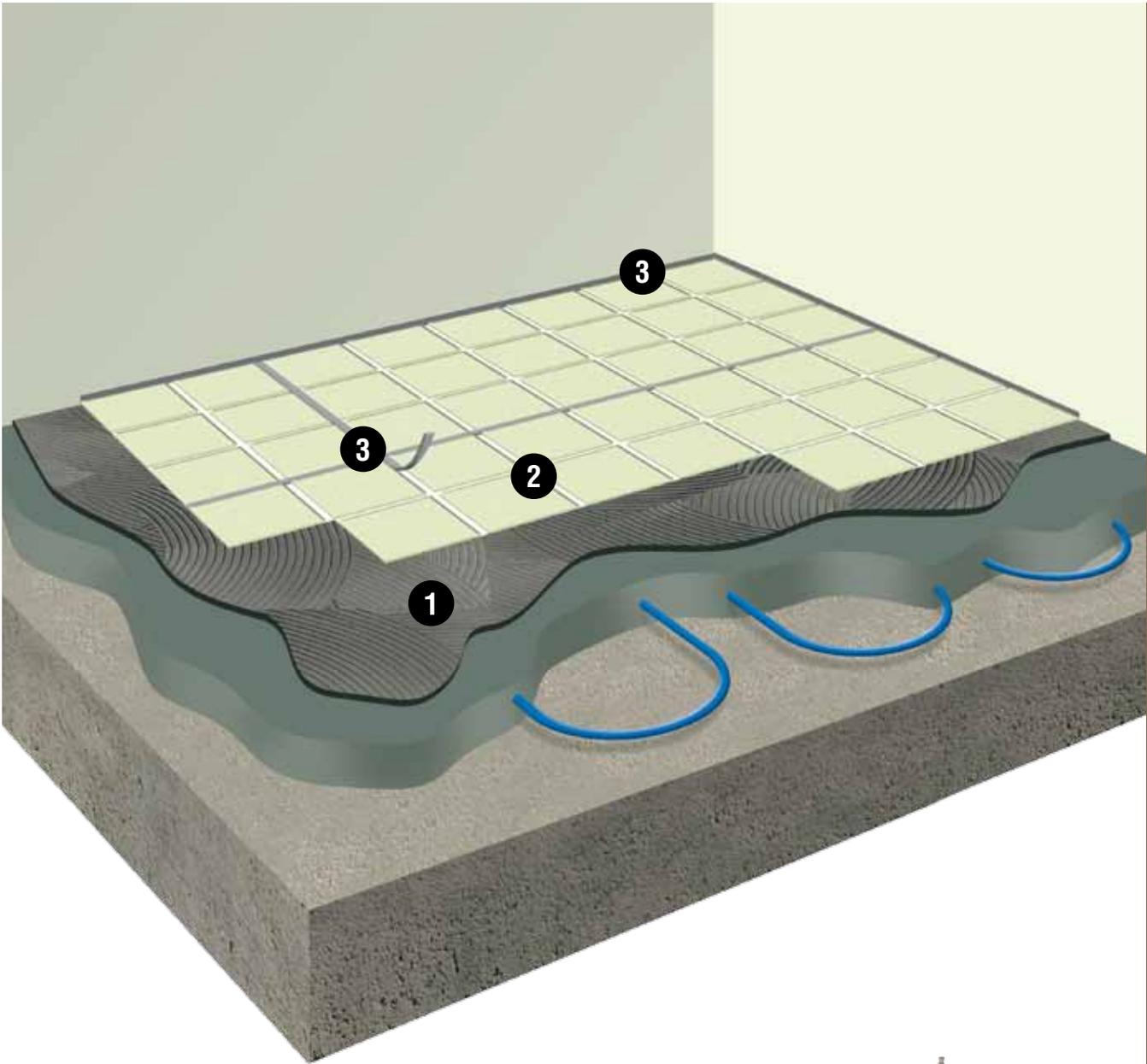
- **VitrA Fix FLEX PORSELEN** (page 96)
- **VitrA Fix LATEX** (page 132)
- **VitrA Fix FLEX 3-10 mm** (page 120)
- **VitrA Fix MS 02** (page 160)

APPLICATION TECHNIQUE

- For tiling on under heated floors, compatible products should be selected for corresponding to the movements (expansions and shrinks on floor) caused by thermal and mechanical effects.
- High porosity substrates should be primed with **VitrA Fix FILM** before fixing. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to next application.
- After tonality and calibration controls of the tiles, fixing may commence. For fixing tiles (<30x60 cm) select **VitrA Fix FLEX PORSELEN**.
- Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60x60 cm.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select **VitrA Fix FLEX 3-10 mm**.

- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker grouting colours.
- For an easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C.
- To improve the technical performance of the grouting material, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX 3-10 mm** has improved elasticity and durability.
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4 m x 4 m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.
- Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling.
- **VitrA Fix MS 02** mastic can be used to fill expansion joints.
- The heating system should be heated with daily increments of 5 °C till the desired temperature.
- Heating temperature of the system should not exceed +30 °C.
- Please consult the technical service for more detailed information.

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1

Vitra Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)



2

Vitra Fix FLEX 3-10 mm
(Flexible grouting material)
+ Vitra Fix LATEX
(High performance additive)



3

Vitra Fix MS 02
(Single component
hybrid joint fill mastic)

TILING ON GYPSUM PANNELS or GYPSUM PLASTERS

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces must be removed by scabbling.
- Ensure that is mature, sound, stable and smooth or wet. It should be checked whether gypsum pannels have been solidly installed.
- Expansion joints should be provided along the joints between gypsum pannels. After installing the pannels wait for the movement and expansion, which are caused by thermal effects, to be finished.
- Cold joints between block pannels might be covered with plaster (plaster poured out at 10 cm width along each side of the joint). Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the pannels move. Reinforcement is embedded in the plaster, when the plaster is still wet, as recommended by the reinforcement manufacturer.
- Relative humidity for the substrate must be below 5%.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- **VitrA Fix HP** (page 108)
- **VitrA Fix FLEX 0-3 mm** (page 118)
- **VitrA Fix FLEX 3-10 mm** (page 120)
- **VitrA Fix LATEX** (page 132)
- **VitrA Fix MS 02** (page 160)

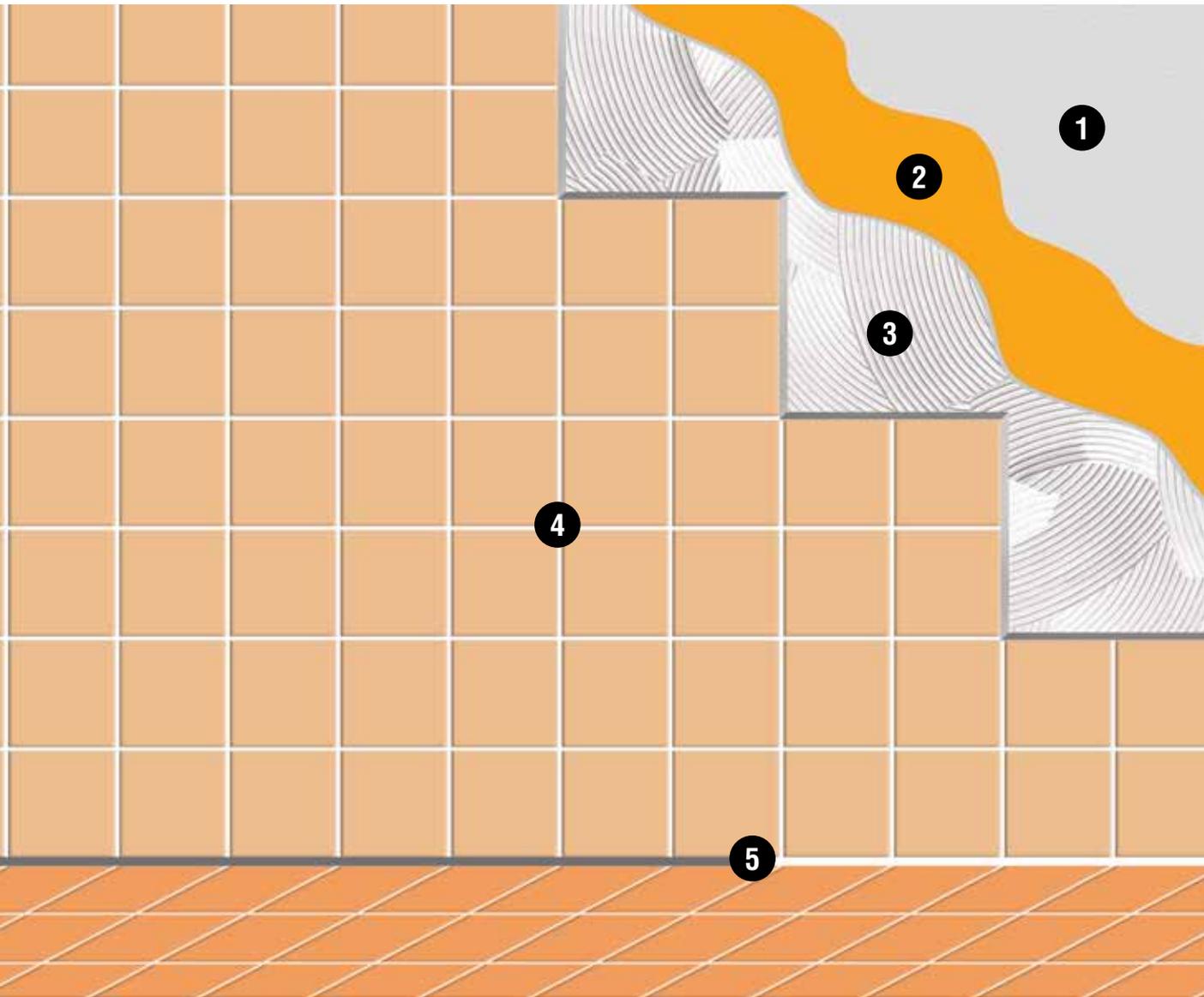
APPLICATION TECHNIQUE

- Flexible tile adhesives should be used for tiling on gypsum board pannels, as the pannels have flexible structure.
- Since application of cement-based adhesives to such kind of surfaces may lead to risky results (because of very high porosity property of the surfaces), it is recommended to use acrylic dispersion based tile adhesives. This type of adhesive bonds and hardens by losing the water in its structure. No priming is required before fixing.
- For fixing select **VitrA Fix HP**.
- The adhesive ready-mixed and no mixing is required.
- It is in paste form and can be applied directly for tiling. Never add any additives (water, latex, etc.) into the ready-mixed paste.
- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. For efficiency, V5 or V6 type notched trowels are recommended.
- In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Do not tile on the joints within pannels and pannel-wall-floor intersections. These joints may allow movements which will cause deformations on the covering. Fill the joints with suitable profiles or mastics.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- Grouting must be done at least 48 hours later after adhesive application, when the adhesive has set and dried.
- For grouting application select **VitrA Fix 0-3 mm** (for tile sizes <2,5x2,5 cm) or **VitrA Fix FLEX 3-10 mm**. To improve the technical performance, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).
- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker grouting colours.
- For a easier application and to ensure full final product performance, the

grout should be applied at an ambient temperature range of +10 °C - +25 °C.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the surface and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- Within pannels, in internal corners, overlapping wall coverings, wall-floor intersections and on areas > 3 m x 3m expansion joints should be applied. Expansion joints should have minimum width of 6-10 mm. Skirting should be fixed upon to the completion of tiling.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- **VitrA Fix MS 02** sealant can be used to fill expansion joints.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

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GYPSUM PANNEL OR GYPSUM PLASTERS

1



2

Vitra Fix FILM
(Synthetic resin based primer)



3

Vitra Fix HP
(High performance and flexible ready mixed tile adhesive)



4

Vitra Fix FLEX 3-10 mm
(Flexible grouting material)
or
Vitra Fix FLEX 0-3 mm
(Flexible, fine grained grouting material)
+ Vitra Fix LATEX
(High performance additive)



5

Vitra Fix MS 02
(Single component hybrid joint fill mastic)

TILING ON EXISTING TILES

SURFACE PREPARATION

- Ensure that substrate is mature, sound, stable and smooth. Adhesion and rigidity of the existing tile should be checked by tapping a hammer. Loose or poorly adhering covering should be removed and replaced by similar covering or the substrate should be reconstituted with a suitable repairing product.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Residues and stains on existing tiles can be cleaned by **VitrA Fix NET**.
- To expand bonding area, the existing tile surface should be gently notched by tapping a hammer; however do not damage the bonding strength of the existing tile on its substrate.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- **VitrA Fix FILM PLUS** (page 131)
- **VitrA Fix FLEX PORSELEN** (page 96)
- **VitrA Fix HP** (page 108)
- **VitrA Fix FLEX 0-3 mm** (page 118)
- **VitrA Fix FLEX 3-10 mm** (page 120)
- **VitrA Fix EPOXY** (page 126)
- **VitrA Fix NET** (page 134)

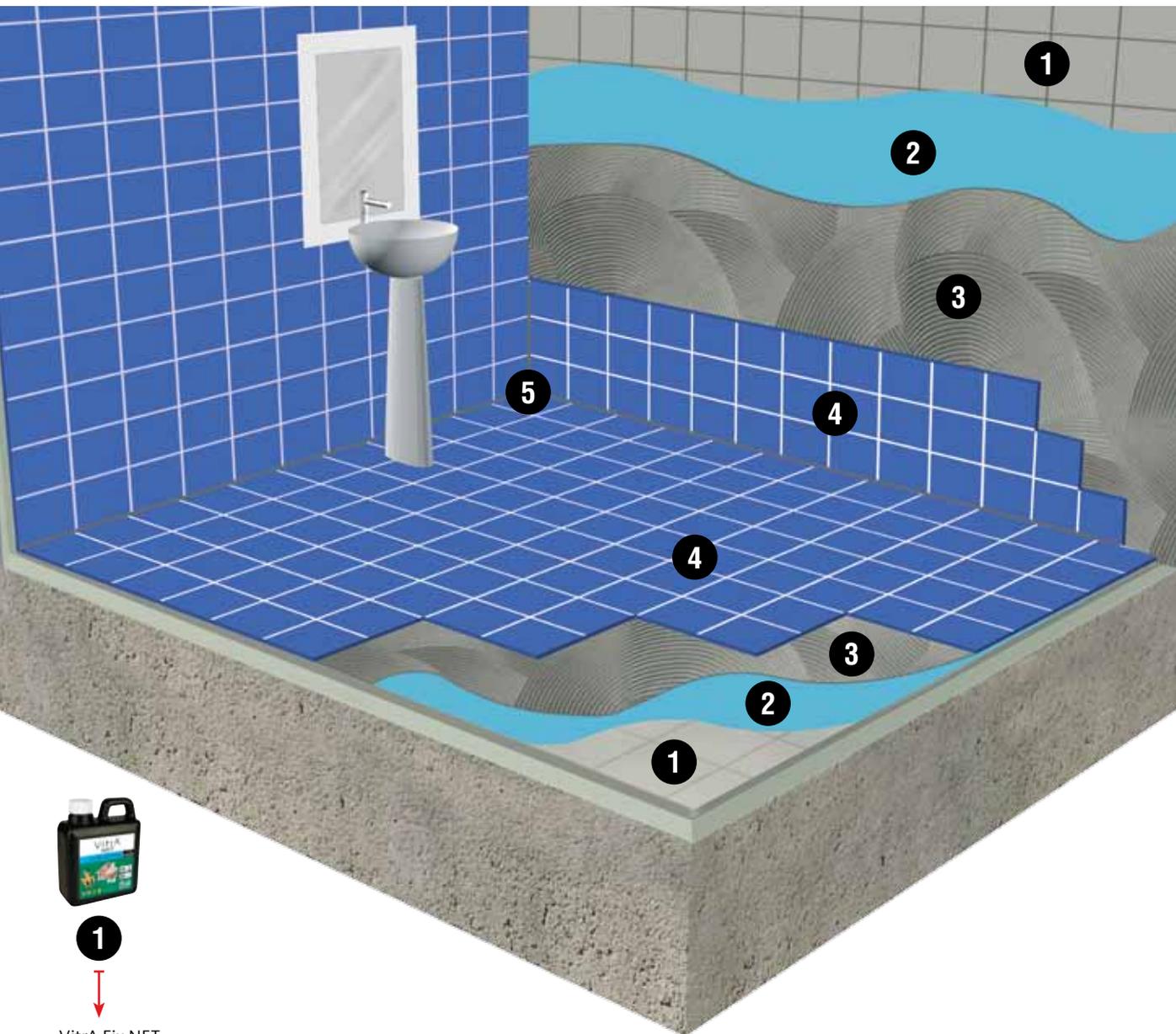
APPLICATION TECHNIQUE

- For fixing onto impervious surfaces like existing tiles the surface must be primed to improve bonding performance of the substrate. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended. Wait for 6 hours for the primer to dry.
- For fixing tiles select **VitrA Fix HP** (when fixing high porosity wall tiles no priming is required) or **VitrA Fix FLEX PORSELEN**.
- **VitrA Fix HP**; the adhesive is ready-mixed and no mixing is required. It is in paste form and can be applied directly for tiling. Never add any additives (water, latex, etc.) into the ready-mixed paste.
- **VitrA Fix FLEX PORSELEN**; gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistency such that it does not flow when handled with a trowel. The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. For efficiency in fixing with **VitrA Fix HP**, V5 or V6 type notched trowels are recommended. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the **VitrA Fix FLEX PORSELEN**, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix LATEX** can fix tiles in sizes up to 60x60 cm.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select one of **VitrA Fix EPOXY**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix FLEX 0-3 mm** according to technical requirements. **VitrA Fix EPOXY** has improved water repellency and chemical resistance, thus it is ideal for grouting on kitchens and wet areas where water, food and chemical surface cleaning material residuals may have corrosive effects on grout surfaces.
- While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For an easier ap-

plication and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C.

- Cement based grouting materials; do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- To improve the technical performance of **VitrA Fix FLEX 3-10 mm** and **VitrA Fix FLEX 3-10 mm** (improved resistance and flexibility and water repellency features), it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain. The floor may be walkable in 24 hours after grouting and to heavy pedestrian traffic after 72 hours.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorb the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the surface and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4 m x 4 m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.
- On walls; in internal corners, overlapping wall coverings and on areas > 3 m x 3 m expansion joints should be applied.
- Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- **VitrA Fix MS 02** sealant can be used to fill expansion joints.

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1

Vitra Fix NET
(Acid-based, liquid tile cleaning material)



2

Vitra Fix FILM PLUS
(High performance adhesion primer)
or
Vitra Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
+ Vitra Fix LATEX
(High performance additive)



3

Vitra Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
or
Vitra Fix HP
(High performance and flexible
ready mixed tile adhesive)



4

Vitra Fix EPOXY
(Epoxy resin based grouting material)
or
Vitra Fix FLEX 0-3 mm
(Flexible, fine grained grouting material)
or
Vitra Fix FLEX 3-10 mm
(Flexible grouting material)



5

Vitra Fix MS 02
(Single component
hybrid joint fill
mastic)

TILING ON PAINTED SURFACES

SURFACE PREPARATION

- Loose and bloated existing paint should be removed mechanically. Notching or sanding the surface will provide suitable bonding adhesion of the adhesive.
- Hardness and resistance of the existing plaster or screed should be well checked. The surface hardness can be checked by scratching it with a pointed tool (i.e. hammer, screwdriver) superficially in random places of the substrate.
- Loose and unstable surfaces should be removed until the sound and stable layer. Then, the substrate should be leveled with surface repairing and smoothing materials.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Residues and stains on existing tiles can be cleaned by **VitrA Fix NET**.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- **VitrA Fix FILM PLUS** (page 131)
- **VitrA Fix FLEX PORSELEN** (page 96)
- **VitrA Fix HP** (page 108)
- **VitrA Fix FLEX 0-3 mm** (page 118)
- **VitrA Fix FLEX 3-10 mm** (page 120)
- **VitrA Fix EPOXY** (page 126)
- **VitrA Fix NET** (page 134)

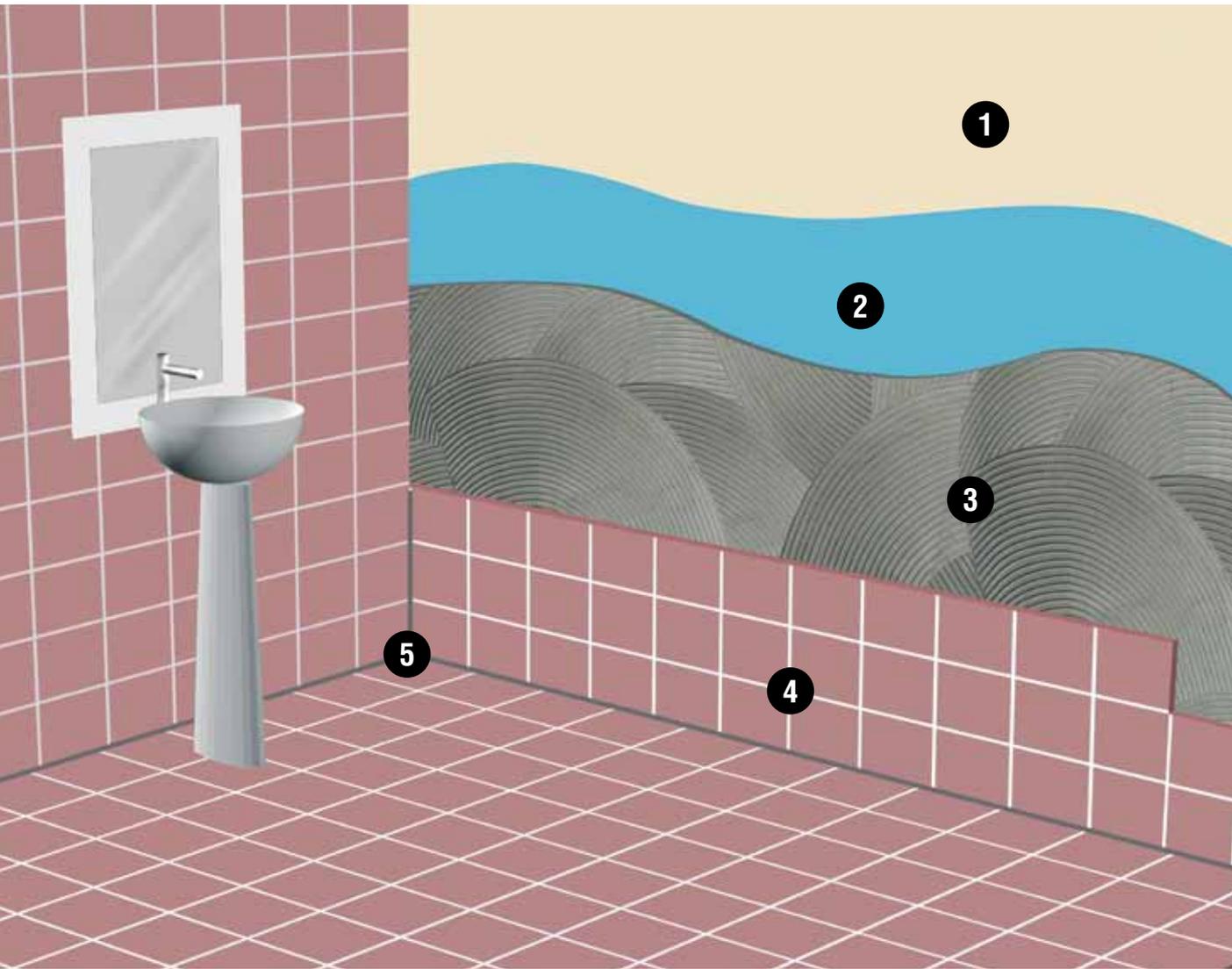
APPLICATION TECHNIQUE

- For fixing onto impervious surfaces like existing paint, the surface must be primed to improve bonding performance of the substrate. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended. Wait for 6 hours for the primer to dry.
- For fixing tiles select **VitrA Fix HP** (when fixing high porosity wall tiles no priming is required) or **VitrA Fix FLEX PORSELEN**.
- **VitrA Fix HP**; the adhesive is ready-mixed and no mixing is required. It is in paste form and can be applied directly for tiling. Never add any additives (water, latex, etc.) into the ready-mixed paste.
- **VitrA Fix FLEX PORSELEN**; gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistency such that it does not flow when handled with a trowel. The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. For efficiency in fixing with **VitrA Fix HP**, V5 or V6 type notched trowels are recommended. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the **VitrA Fix FLEX PORSELEN**, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60x60 cm.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select one of **VitrA Fix EPOXY**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix FLEX 0-3 mm** according to technical requirements. **VitrA Fix EPOXY** has improved water repellency and chemical resistance, thus it is ideal for grouting on kitchens and wet areas where water, food and chemical surface cleaning material residuals may have corrosive effects on

grout surfaces.

- While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For an easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C.
- Cement based grouting materials; do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- To improve the technical performance of **VitrA Fix FLEX 3-10 mm** and **VitrA Fix FLEX 3-10 mm** (improved resistance and flexibility and water repellency features), it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain. The floor may be walkable in 24 hours after grouting and to heavy pedestrian traffic after 72 hours.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorb the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the surface and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4 m x 4 m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.
- On walls; in internal corners, overlapping wall coverings and on areas > 3 m x 3m expansion joints should be applied.
- Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- **VitrA Fix MS 02** sealant can be used to fill expansion joints.

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1

VitrA Fix NET
(Acid-based, liquid
tile cleaning material)



2

VitrA Fix FILM PLUS
(High performance adhesion primer)
or
VitrA Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
+ VitrA Fix LATEX
(High performance additive)



3

VitrA Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
or
VitrA Fix HP
(High performance and flexible
ready mixed tile adhesive)



4

VitrA Fix EPOXY
(Epoxy resin based grouting material)
or
VitrA Fix FLEX 0-3 mm
(Flexible, fine grained grouting material)
or
VitrA Fix FLEX 3-10 mm
(Flexible grouting material)



5

VitrA Fix MS 02
(Single component
hybrid joint fill
mastic)

TILING ON WALLS IN WET AREAS

SURFACE PREPARATION

- Do not tile onto new render or concrete. Leave plaster or concrete for at least 6 weeks before tiling. Due to high water absorption ratio of wall tiles and different stresses forming between adhesive and plaster, capillary cracks will appear on the plaster when it does not complete its final set time.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with surface smoothing plasters.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- VitrA Fix FILM (page 130)
- VitrA Fix RM 27 (page 164)
- VitrA Fix FIXER (page 90)
- VitrA Fix FLEX PORSELEN (page 96)
- VitrA Fix 1-6 mm (page 116)
- VitrA Fix FLEX 0-3 mm (page 118)
- VitrA Fix FLEX 3-10 mm (page 120)

APPLICATION TECHNIQUE

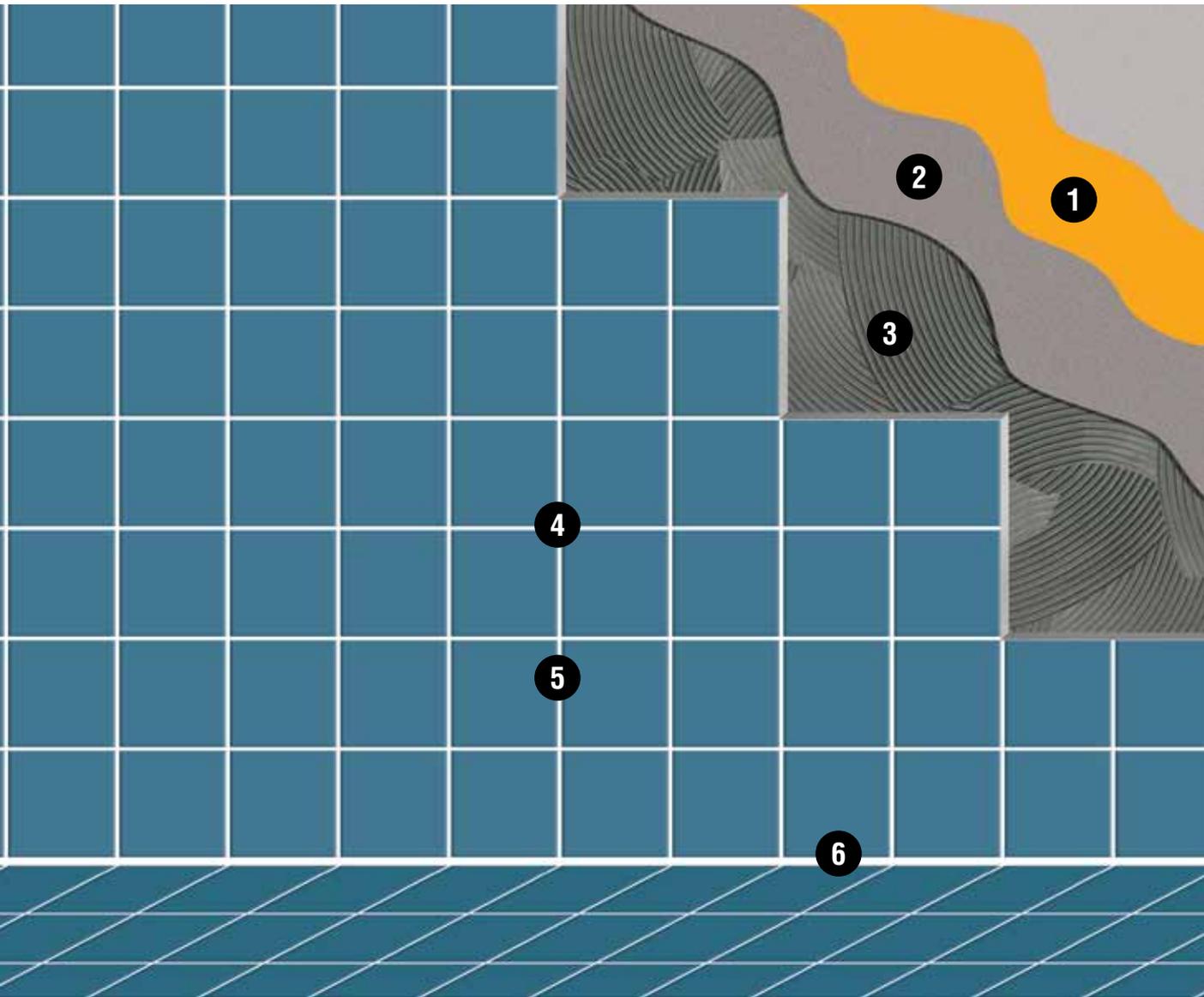
- High porosity substrates should be primed with **VitrA Fix FILM** before fixing. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to next application.
- For fixing high porosity wall tiles ($\leq 33 \times 33$ cm) select **VitrA Fix FIXER**; for fixing low porosity porcelain tiles, glass tiles and mosaics ($< 30 \times 60$ cm) select **VitrA Fix FLEX PORSELEN**.
- Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes $> 33 \times 33$ cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60×60 cm.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select one of **VitrA Fix 1-6 mm**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix FLEX 0-3 mm** according to technical requirements.
- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discoloration and variation which will be more noticeable with darker grouting colours.
- For a easier application and to ensure full final product performance, the

grout should be applied at an ambient temperature range of $+10^{\circ}\text{C} - +25^{\circ}\text{C}$.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.

- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.

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1	2	3	4	5	6
↓ VitrA Fix FILM (Synthetic resin based primer)	↓ VitrA Fix RM 27 (Surface smoothing and repairing mortar)	↓ VitrA Fix FLEX PORSELEN (Flexible porcelain tile adhesive) or VitrA Fix FIXER (Ceramic tile adhesive)	↓ VitrA Fix FLEX 0-3 mm (Flexible, fine grained grouting material) or VitrA Fix FLEX 3-10 mm (Flexible grouting material) or VitrA Fix POOL G 2-10 mm (Cement based, special, flexible grouting material)	↓ VitrA Fix NET (Acid-based, liquid tile cleaning material)	↓ VitrA Fix SM 810 (Neutral antibacterial silicone sealant) or VitrA Fix MS 02 (Single component hybrid joint fill mastic)

WATER-PROOFING and TILING ON FLOOR IN WET AREAS

SURFACE PREPARATION

- Do not tile onto new screed or concrete. Leave screed or concrete for at least 6 weeks before tiling. Duration may extend in lower temperatures and/or high humidity conditions. The screed should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with flooring products (**VitrA Fix S 30** is recommended).

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

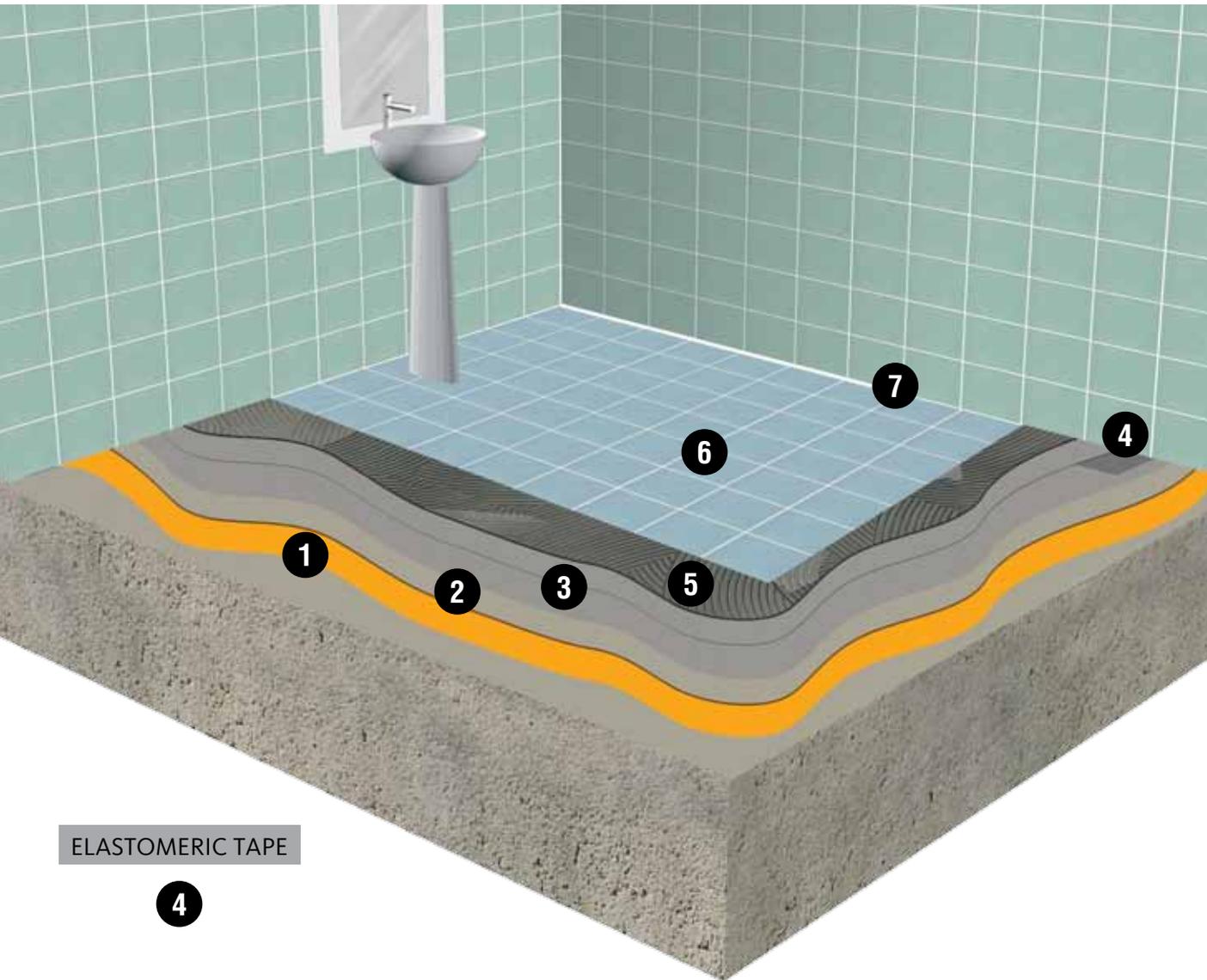
- | | |
|-----------------------------------|------------|
| ■ VitrA Fix S 30 | (page 152) |
| ■ VitrA Fix FILM | (page 130) |
| ■ VitrA Fix PROOF S | (page 146) |
| ■ VitrA Fix PROOF | (page 148) |
| ■ VitrA Fix FLEX PORSELEN | (page 96) |
| ■ VitrA Fix FLEX 0-3 mm | (page 118) |
| ■ VitrA Fix FLEX 3-10 mm | (page 120) |
| ■ VitrA Fix POOL G 2-10 mm | (page 122) |
| ■ VitrA Fix SM 810 | (page 158) |

APPLICATION TECHNIQUE

■ On wet areas, before fixing tiles water proofing should be completed. ■ Water proofing application should be held on pool terraces with **VitrA Fix PROOF** or **VitrA Fix PROOF S**, cement based, two component, and elastic water proofing materials. ■ High porosity substrates should be primed with **VitrA Fix FILM** before applying **VitrA Fix PROOF**. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to water proofing application. ■ Mix two components of **VitrA Fix PROOF** or **VitrA Fix PROOF S** to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should rest for 3 minutes prior to application and should be applied after remixing. ■ **VitrA Fix PROOF** or **VitrA Fix PROOF S** is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application. ■ 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions). ■ Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above. Insulation details of structures on the covering (such as lighting armatures, discharge pipes, drains and faucets) should be figured out with appropriate water proofing solutions. ■ Application on hot surfaces and during sunny weather is not recommended. Cracks may happen due to sudden shrinkage. ■ Following application must be done at least 48 hours later after water proofing material has set. ■ For fixing tiles select **VitrA Fix FLEX PORSELEN**. ■ Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing. The paste should be in a consistence such that it does not flow when handled with a trowel. The paste should rest for 3-5 minutes prior to application and should be applied after remixing. ■ Fixing with **VitrA Fix FLEX PORSELEN**; apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. The tiles must be fixed

within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved. To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60x60 cm. ■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens. ■ In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used. ■ To prevent water puddles, particularly for outdoor and wet area applications, the floor should be leveled with an inclined of 3% along the direction of drain. ■ Grouting should start after the adhesive has set and dried. Cementitious grouting material's colour may taint due to adhesive's cement content and colour. ■ For grouting application select one of **VitrA Fix FLEX 0-3 mm**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix POOL G 2-10 mm** according to technical requirements. These grouting materials have very low water absorption values and improved technical performance, thus they are ideal for grouting on wet areas. ■ While applying the grout, carefully follow the rules and instructions on product packaging and technical legends of the products. For an easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of +10 °C - +25 °C. ■ For cementitious grouts; do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discoloration and variation which will be more noticeable with darker grouting colours. ■ To improve the technical performance of **VitrA Fix FLEX 3-10 mm** (improved resistance and flexibility and water repellency features), it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). ■ Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and water effects. ■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints. ■ No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics. ■ If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4m x 4m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building. ■ Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling. ■ **VitrA Fix SM 810** sealant can be used to fill expansion joints.

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ELASTOMERIC TAPE

4



1

Vitra Fix FILM
(Synthetic resin based primer)

2

Vitra Fix S 30
(Fiber reinforced,
self leveling
compound)

3

Vitra Fix PROOF
(Two component, full elastic,
cement-based water proofing material)
or
Vitra Fix PROOF S
(Two component, semi-elastic,
cement-based water proofing material)

5

Vitra Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)

6

Vitra Fix FLEX 0-3 mm
(Flexible, fine grained
grouting material)
or
Vitra Fix FLEX 3-10 mm
(Flexible grouting material)
or
Vitra Fix POOL G 2-10 mm
(Cement based, special,
flexible grouting material)

7

Vitra Fix SM 810
(Neutral antibacterial
silicone sealant)

TILING ON WALLS IN KITCHENS

SURFACE PREPARATION

- Do not tile onto new render or concrete. Leave plaster or concrete for at least 6 weeks before tiling. Due to high water absorption ratio of wall tiles and different stresses forming between adhesive and plaster, capillary cracks will appear on the plaster when it does not complete its final set time.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with surface smoothing plasters.

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- VitrA Fix FILM (page 130)
- VitrA Fix RM 27 (page 164)
- VitrA Fix FIXER (page 90)
- VitrA Fix FLEX PORSELEN (page 96)
- VitrA Fix 1-6 mm (page 116)
- VitrA Fix POOL G 2-10 mm (page 122)
- VitrA Fix FLEX 0-3 mm (page 118)
- VitrA Fix FLEX 3-10 mm (page 120)
- VitrA Fix NET (page 134)

APPLICATION TECHNIQUE

- High porosity substrates should be primed with **VitrA Fix FILM** before fixing. It is applicable to tile on gypsum based substrates in internal areas whether primed with **VITRA FIX FILM**. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to next application.
- If plastering for surface smoothing or repairing surface damages is needed, select **VitrA Fix RM 27** surface smoothing and repair mortar. **VitrA Fix RM 27** should be applied with a maximum thickness of 7 mm. Prepare and apply the plaster following the instructions on product packaging and technical data sheets. In case of complete plastering of the surface, wait for at least 6 weeks for the plaster to complete its final setting.
- For fixing high porosity wall tiles ($\leq 33 \times 33$ cm) select **VitrA Fix FIXER**; for fixing low porosity porcelain tiles, glass tiles and mosaics ($< 30 \times 60$ cm) select **VitrA Fix FLEX PORSELEN**.
- Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes $> 33 \times 33$ cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60×60 cm.
- Grouting should start after the adhesive has set and dried. Grouting materials colour may taint due to adhesive's cement content and colour.

- For grouting application select one of **VitrA Fix 1-6 mm**, **VitrA Fix POOL G 2-10 mm**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix FLEX 0-3 mm** according to technical requirements. **VitrA Fix POOL G 2-10 mm** have improved water repellency and chemical resistance, thus they are ideal for grouting on kitchens where water, food and chemical surface cleaning material residuals may have corrosive effect on surfaces.
- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- For a easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of $+10^{\circ}\text{C} - +25^{\circ}\text{C}$.
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the surface and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- On walls; in internal corners, overlapping wall coverings and on areas $> 3 \text{ m} \times 3 \text{ m}$ expansion joints should be applied. Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- **VitrA Fix SM 810** sealant can be used to fill expansion joints.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



CEMENT BASED PLASTER

						
2	3	4	5	6	7	8
VitrA Fix RM 27 (Surface smoothing and repairing mortar)	VitrA Fix FILM (Synthetic resin based primer)	VitrA Fix FLEX PORSELEN (Flexible porcelain tile adhesive) or VitrA Fix FIXER (Ceramic tile adhesive)	VitrA Fix 1-6 mm (Grouting material) or VitrA Fix FLEX 3-10 mm (Flexible grouting material) or VitrA Fix FLEX 0-3 mm (Flexible, fine grained grouting material)	VitrA Fix POOL G 2-10 mm (Cement based, special, flexible grouting material)	VitrA Fix NET (Acid-based, liquid tile cleaning material)	VitrA Fix SM 810 (Neutral antibacterial silicone sealant) or VitrA Fix MS 02 (Single component hybrid joint fill mastic)

TILING ON FLOORS IN KITCHENS

SURFACE PREPARATION

- Do not tile onto new screed or concrete. Leave screed or concrete for at least 6 weeks before tiling. Duration may extend in lower temperatures and/or high humidity conditions. The screed should be wetted each day during curing to prevent formation of cracks caused by shrinkage, in dry and hot ambient conditions.
- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling. Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. It is recommended to clean up the surface with pressurized water.
- The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with flooring products (**VitrA Fix S 30** is recommended).

SELECTION OF TILES

- Tiles of any format and size as recommended by the manufacturers.

VitrA Fix PRODUCTS MIX

- **VitrA Fix FILM** (page 130)
- **VitrA Fix S 30** (page 152)
- **VitrA Fix FIXER** (page 90)
- **VitrA Fix FLEX PORSELEN** (page 96)
- **VitrA Fix LATEX** (page 132)
- **VitrA Fix 1-6 mm** (page 116)
- **VitrA Fix FLEX 0-3 mm** (page 118)
- **VitrA Fix FLEX 3-10 mm** (page 120)
- **VitrA Fix NET** (page 134)
- **VitrA Fix SM 810** (page 158)
- **VitrA Fix MS 02** (page 160)

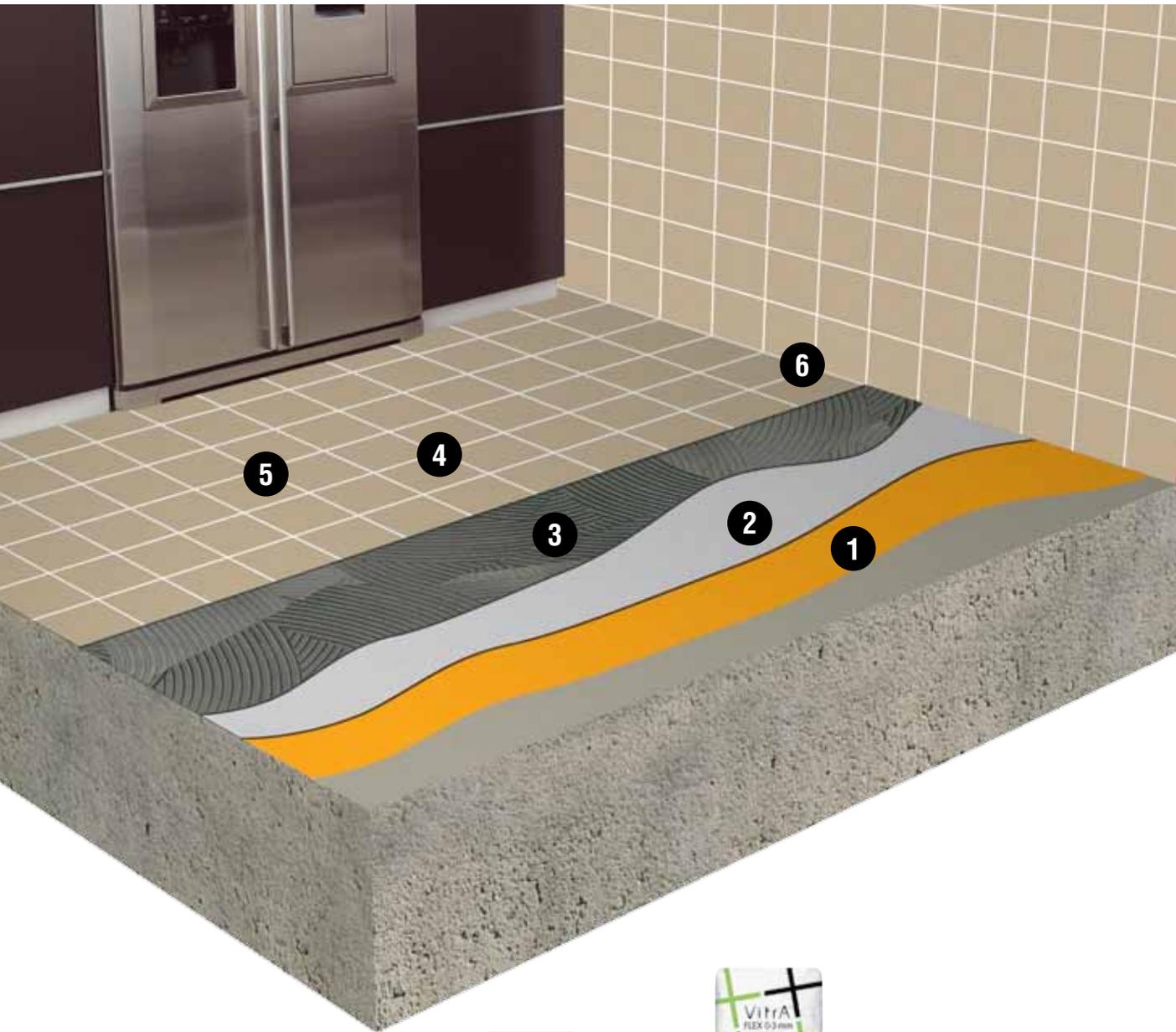
APPLICATION TECHNIQUE

- High porosity substrates should be primed with **VitrA Fix FILM** before fixing. Priming will balance the water absorptivity of the surface and enhance bonding adherence. Wait for at least 3 hours for the primer to dry and then continue to next application.
- For fixing high porosity floor tiles ($\leq 33 \times 33$ cm) select **VitrA Fix FIXER**; for fixing low porosity porcelain tiles, glass tiles and mosaics ($< 30 \times 60$ cm) select **VitrA Fix FLEX PORSELEN**.
- Gradually add clean water to powder (in quantities as stated in technical legends of products), and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Apply the adhesive on the substrate (for tile sizes $> 33 \times 33$ cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured adhesive should be used.
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water, instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**). With additive added, **VitrA Fix FLEX PORSELEN** can fix tiles in sizes up to 60×60 cm.
- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- For grouting application select one of **VitrA Fix 1-6 mm**, **VitrA Fix FLEX 3-10 mm**, **VitrA Fix FLEX 0-3 mm** according to technical requirements.
- While applying cement based grouts, carefully follow the rules and instructions on product packaging and technical legends of the products. Do

not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.

- For an easier application and to ensure full final product performance, the grout should be applied at an ambient temperature range of $+10$ °C - $+25$ °C.
- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- If any stains and residues remain after grouting, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. As described above expansion joints absorbs the stresses formed between different movement capacities of overlapping materials. Thus, it prevents the deformations that may arise in the flooring and covering. Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.
- No coatings or coverings should be applied on the existing dilatation zones and structural expansion joints in buildings. These zones should be insulated by using proper profiles or mastics.
- If there exist any expansion joints on the floor, artificial expansion joints should be created. Before laying the covering, cold joints should be formed on the screed within rectangular areas of minimum 4 m x 4 m (for large sized tiles up to 8 m x 8 m) with minimum depth of 1 cm. Spiral or concrete cutting machines can be used for forming the joints. If the area is smaller than 4 m x 4 m, expansion joints should be incorporated in the shape (+) on the area. If this is not possible, expansion joints should be laid within columns. These artificial joints will eliminate the stress formed by the structural movements of the building.
- Expansion joints should have minimum width of 6-10 mm along internal corners (wall and floor intersections) this rule should be followed, and skirting should be fixed upon to the completion of tiling.
- **VitrA Fix SM 810** sealant or **VitrA Fix MS 02** mastic can be used to fill expansion joints.

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1

Vitra Fix FILM
(Synthetic resin based primer)



2

Vitra Fix S 30
(Fiber reinforced,
self leveling compound)



3

Vitra Fix FLEX PORSELEN
(Flexible porcelain tile adhesive)
or
Vitra Fix FIXER
(Ceramic tile adhesive)



4

Vitra Fix 1-6 mm
(Grouting material)
or
Vitra Fix FLEX 3-10 mm
(Flexible grouting material)
or
Vitra Fix FLEX 0-3 mm
(Flexible, fine grained grouting
material)



5

Vitra Fix NET
(Acid-based, liquid
tile cleaning
material)



6

Vitra Fix SM 810
(Neutral antibacterial
silicone sealant)

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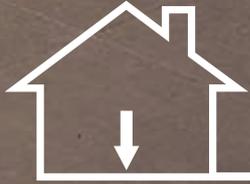
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APPLICATION ICONS



Ideal for
INDOOR FLOORING



Ideal for
OUTDOOR FLOORING



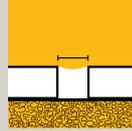
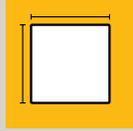
Ideal for
INDOOR WALL
applications



Ideal for
OUTDOOR FACADE
applications



LIMITED TILE DIMENSIONS



GROUT WIDTH

CHECK FOR
SURFACE CONTROL



AMBIENT TEMPERATURE

WATER MIXING RATIO



MIXING RATIO
/ 2 COMPONENTS PRODUCTS

TROWEL TYPE



TILING TECHNIQUE

APPLICATION TIME



POT LIFE

APPLICATION WITH TROWEL



INDUSTRIAL FLOORING

UNDER WATER PRESSURE



HEAVY PEDESTRIAL TRAFFIC

TWO COMPONENT PRODUCT



APPLICATION METHOD



Vitra Fix FIXER

Ceramic tile adhesive



DESCRIPTION

Cement based tile adhesive for fixing small and medium sized ceramic tiles (up to 33x33 cm in sizes with water absorption ratio > %3) onto walls and floors. It is non-slip by its tixotropic feature. It allows quick and easy tiling with its extended application time feature.

AREAS OF USE

Suitable for use in internal vertical and horizontal fixing applications. It is used for houses, apartments, offices and indoor spaces for boutique use, wet areas as bathrooms and kitchens with slight humidity.

FEATURES

Material content: High quality cement, additives for easy application.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,0-7,0 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature: +5 °C - +35 °C
Adjustment time : 30 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours
(for light pedestrian traffic)
Grouting time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 0,5$ MPa (N/mm²)
- aging with heat : $\geq 0,5$ MPa (N/mm²)
- aging with water : $\geq 0,5$ MPa (N/mm²)
- freeze - thaw cycle : $\geq 0,5$ MPa (N/mm²)
- extended open time (30 mins.): $\geq 0,5$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : limited
Resistance to alkalis : good
Resistance to thermal shocks : -15 °C - +70 °C

REFERENCE STANDARD

TS EN 12004 / CITE class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete slabs. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (i.e., gypsum plasters) should be primed with Vitra Fix FILM before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- Vitra Fix FIXER is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 5 mm.

- Easy application and excellent bonding onto all cementitious substrates,
- Non-slip, excellent performance for wall tiling,
- Easy and quick application,
- Extended open time.



VitrA Fix FIXER

- For larger deviations, the surface should be smoothed with either **VitrA Fix RM 27** or **VitrA Fix S 30**.
- **VitrA Fix COTTO** or **VitrA Fix FLOOR PLUS** adhesives should be used for applications on floors requiring thicker adhesive beds.

MIXING

- Gradually add 6,0-7,0 lt (24-28%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **VitrA Fix FIXER** should be used.
- Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- Open time for **VitrA Fix FIXER** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For fixing porcelain based or low porosity (water absorption rate <3%) tiles **VitrA Fix FLEX PORSELEN** is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix COTTO

Thick bed special tile adhesive



DESCRIPTION

Cement based, thick bed multi purpose tile adhesive with improved adhesion for fixing medium to large sized (<math><30 \times 60 \text{ cm}</math>) ceramic tiles, porcelain tiles, natural stones, travertine, marbles, terracotta and bricks onto floors.

AREAS OF USE

Suitable for use in internal and external, horizontal fixing applications. Ideal for large areas which are exposed to heavy pedestrian traffic such as balconies, pergolas, sidewalks, squares and terraces, and in applications of decorative coating, press bricks and terracotta.

FEATURES

Material content: High quality cement, additives providing flexibility and improved adhesion, thick filling materials and binders.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 5,5-6,5 lt water / 25 kg powder
Open time : 20 minutes
Pot life : 3 hours
Application temperature : +5 °C - +35 °C
Adjustment time : 25 minutes
Coverage area under tile : minimum 95%
Set time : minimum 48 hours
(for light pedestrian traffic)
Grouting time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with heat : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with water : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- freeze-thaw cycle : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- extended open time (20 mins): $\geq 0,5 \text{ MPa (N/mm}^2\text{)}$
Flexibility : good
Resistance to acids and alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

TS EN 12004 / C2 class.

APPLICATION SURFACES

Suitable for use on cement based screeds and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates should be primed with **Vitra Fix FILM** before fixing.
- Impervious surfaces should be primed with **Vitra Fix FILM PLUS** before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **Vitra Fix COTTO** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger devia-

- Ideal for fixing medium and large sized ceramic tiles, porcelain tiles, natural stones and marbles onto internal and external floors,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Adhesive bed thickness of 3 to 20 mm.



VitrA Fix COTTO

tions, the surface should be smoothened with **VitrA Fix S 30**.

MIXING

- Gradually add 5,5-6,5 lt (22-26%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. While fixing large sized tiles, for easier application U9, E10 or marble type notched trowels are recommended.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **VitrA Fix COTTO** should be used.
- Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **VitrA Fix COTTO** is 20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).
- For tiling onto industrial floors **VitrA Fix COTTO** with **VitrA Fix LATEX** additive or **VitrA Fix FLOOR PLUS** is recommended.
- **VitrA Fix RUSTIK 3-20 mm** grouting material may be used as a decorative joint grout with natural stones and earthenware tiles.

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U9 (9x9x9) mm	4 - 5 kg 5 - 6 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



VitrA Fix FLEXY



High performance porcelain tile adhesive



TILE ADHESIVES

DESCRIPTION

Cement based, flexible tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) walls&floor tiles and porcelain tiles. It is non-slip by its tixotropic feature.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6-7 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature : +5 °C - +35 °C
Bed thickness : 2-10 mm
Coverage area under tile : minimum 90%
Open to foot traffic : minimum 24 hours (for light pedestrian traffic)
Grouting after application: 24 hours after application
Final hardening time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- extended open time (20 mins.): $\geq 1,0$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : good
Resistance to alkalis : good
Resistance to thermal shocks : excellent (-30 °C - +70 °C)

REFERENCE STANDARD

TS EN 12004 / C2T class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with **VitrA Fix FILM** before fixing.
- Impervious surfaces should be primed with **VitrA Fix FILM PLUS** before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **VitrA Fix FLEXY** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or

- Excellent tiling on walls and floors,
- Resistant to outdoor conditions,
- Resistant to water and frost,
- Resistant to thermal shocks and moisture,
- Non-slip, excellent performance for wall tiling.



VitrA Fix FLEXY

VitrA Fix S 30.

- VitrA Fix COTTO or VitrA Fix FLOOR PLUS adhesives should be used for applications on floors requiring thicker adhesive beds.

MIXING

- Gradually add 6-7 lt (24-28%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured VitrA Fix FLEXY should be used.
- Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for VitrA Fix FLEXY is 20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.

- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer VitrA Fix FILM PLUS or the mixture prepared by mixing VitrA Fix FLEXY and VitrA Fix LATEX in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with VitrA Fix FILM.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (VitrA Fix HYDROSTOP, VitrA Fix PROOF S of VitrA Fix PROOF).
- To improve the technical performance of the adhesive, it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix FLEX PORSELEN



High performance flexible
porcelain tile adhesive



DESCRIPTION

Cement based, flexible tile adhesive with improved adhesion for fixing small to large sized ($30 \times 60 \text{ cm}$) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta, thermal insulation plates and bricks onto walls and floors. It is excellent particularly for fixing onto low porosity substrates. It is non-slip by its tixotropic feature. It has extended application time allowing a quick and easy tiling.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,5-7,5 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature : +5 °C - +35 °C
Adjustment time : 30 minutes
Coverage area under tile : minimum 90%
Set time : minimum 24 hours
(for light pedestrian traffic)
Grouting time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with heat : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with water : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- freeze-thaw cycle : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- extended open time (30 mins.) : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
Shear : $\leq 0,5 \text{ mm}$
Flexibility : excellent
Resistance to alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

TS EN 12004 / C2TE class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with Vitra Fix FILM before fixing.
- Impervious surfaces should be primed with Vitra Fix FILM PLUS before fixing.

- Excellent for all kinds of porcelain tiles, natural stones and marbles,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Easy and quick application with extended open time,
- Suitable for fixing onto heated floors and low porosity substrates as existing ceramic tiles.



VitrA Fix FLEX PORSELEN

- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **VitrA Fix FLEX PORSELEN** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or **VitrA Fix S 30**.
- **VitrA Fix COTTO** or **VitrA Fix FLOOR PLUS** adhesives should be used for applications on floors requiring thicker adhesive beds.

MIXING

- Gradually add 6,5-7,5 lt (26-30%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **VitrA Fix FLEX PORSELEN** should be used.
- Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **VitrA Fix FLEX PORSELEN** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy

traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



VitrA Fix POOL

High performance adhesive for pool tiles



DESCRIPTION

Cement based, water repellent, flexible tile adhesive with improved adhesion for fixing small to large sized (<math><30 \times 60 \text{ cm}</math>) pool tiles and non-slip pieces, ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles and terracotta onto walls and floors. It is excellent particularly for fixing onto low porosity substrates. It is non-slip by its tixotropic feature. It has extended application time allowing a quick and easy tiling.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal tiling applications. Ideal for tiling in wet areas (bathrooms, showers, and etc.), swimming pools, therapy pools, saunas, car-wash units and terraces.

FEATURES

Material content: High quality cement, additives providing water-repellency, flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,5-7,5 lt water / 25 kg powder
Open time : 30 minutes
Pot life : 3 hours
Application temperature: +5 °C - +35 °C
Adjustment time : 30 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours (for light pedestrian traffic)
Grouting time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with heat : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with water : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- freeze-thaw cycle : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- extended open time (30 mins.): $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
Shear : $\leq 0,5 \text{ mm}$
Flexibility : excellent
Resistance to acids and alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

TS EN 12004 / C2TE class.

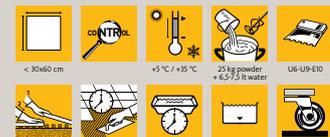
APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (i.e., gypsum plasters) should be primed with VitrA Fix FILM before fixing.
- Impervious surfaces should be primed with VitrA Fix FILM PLUS before fixing.
- The surfaces exposed to direct sun light and have a surface temperature

- Excellent tiling for pools and wet areas,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Easy and quick application with extended open time.



VitrA Fix POOL

above +35 °C must be cooled by damping.

■ **VitrA Fix POOL** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or **VitrA Fix S 30**.

■ **VitrA Fix FLOOR PLUS** adhesive should be used for applications on floors requiring thicker adhesive beds.

MIXING

■ Gradually add 6,5-7,5 lt (26-30%) of clean water to 25 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.

■ The paste should be in a consistence such that it does not flow when handled with a trowel.

■ The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

■ The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.

■ Application surface temperature must be above +5 °C. The surface should have no risk of freezing.

■ Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

■ Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.

■ The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.

■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.

■ In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **VitrA Fix POOL** should be used.

■ Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

■ If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.

■ Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.

■ Do not add more water into the mixture once the mixture is prepared.

■ Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.

■ Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.

■ To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.

■ Open time for **VitrA Fix POOL** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.

■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement

joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

■ Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.

■ When tiling on walls, the weight of tiles per m² should not exceed 30 kg.

■ Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

■ For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.

■ It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.

■ Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).

■ To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

■ When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.

■ The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.

■ When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

■ Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.

■ Wear suitable protective clothing, gloves and eyes/face protection.

■ The product should not be inhaled. Dust mask should be used if necessary.

■ Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix FLEX RAPID



Rapid setting flexible ceramic tile adhesive



DESCRIPTION

Cement based, rapid setting, flexible tile adhesive with improved adhesion for fixing small to large sized (<math><30 \times 60 \text{ cm}</math>) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta and klinker tiles onto walls and floors for quick restoration and repair purposes ready for light foot traffic in short times. It is non-slip by its tixotropic feature.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing rapid set feature and flexibility and improved adhesion.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,8-5,6 lt water / 20 kg powder
Open time : 10-15 minutes
Pot life : 30 minutes
Application temperature: +5 °C - +25 °C
Adjustment time : 15-20 minutes
Coverage area under tile: minimum 90%
Set time : minimum 12 hours (for light pedestrian traffic)
Grouting time : minimum 6 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with heat : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- aging with water : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- freeze-thaw cycle : $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
- extended open time (30 mins.): $\geq 1,0 \text{ MPa (N/mm}^2\text{)}$
Shear : $\leq 0,5 \text{ mm}$
Flexibility : excellent
Resistance to acids and alkalis : good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

TS EN 12004 / C2FT class.

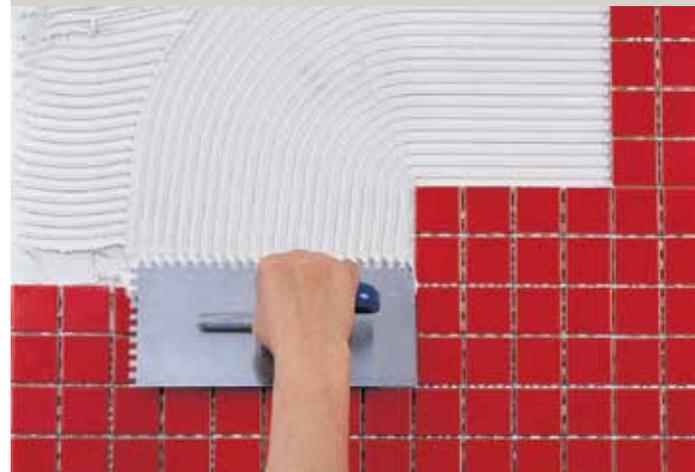
APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with VitrA Fix FILM before fixing.
- Impervious surfaces should be primed with VitrA Fix FILM PLUS before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +25 °C must be cooled by damping.
- VitrA Fix FLEX RAPID is not a leveling material. The deepest point of the

- Ready for grouting in 6 hours and light foot traffic in 12 hours,
- Suitable for renovations and repairments,
- Excellent for all kinds of porcelain tiles, natural stones and marbles,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks.



VitrA Fix FLEX RAPID

application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or **VitrA Fix S 30**.

■ **VitrA Fix FLOOR PLUS** adhesive should be used for applications on floors requiring thicker adhesive beds.

MIXING

■ Gradually add 4,8-5,6 lt (24-28%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.

■ The paste should be in a consistence such that it does not flow when handled with a trowel.

■ The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

■ The adhesive should be used at an ambient temperature range of +5 °C - +25 °C.

■ Application surface temperature must be above +5 °C. The surface should have no risk of freezing.

■ Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

■ Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.

■ The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.

■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.

■ In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **VitrA Fix FLEX RAPID** should be used.

■ Grouting must be done at least 6 hours later after adhesive application.

PRECAUTIONS

■ If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.

■ Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.

■ Do not add more water into the mixture once the mixture is prepared.

■ Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.

■ Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.

■ To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.

■ Open time for **VitrA Fix FLEX RAPID** is 10-15 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.

■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided

into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

■ Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.

■ When tiling on walls, the weight of tiles per m² should not exceed 30 kg.

■ Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

■ For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX RAPID** and **VitrA Fix LATEX** in equal amounts is recommended.

■ It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.

■ Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).

■ To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

■ When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.

■ The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.

■ When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

■ Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.

■ Wear suitable protective clothing, gloves and eyes/face protection.

■ The product should not be inhaled. Dust mask should be used if necessary.

■ Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix RAPID SET



Rapid setting ceramic tile adhesive



DESCRIPTION

Cement based, rapid setting, tile adhesive for fixing small and medium sized ceramic tiles (up to 33x33 cm in sizes with water absorption ratio >3%) onto walls and floors for quick restoration and repair purposes ready for light foot traffic in short times. It is non-slip by its tixotropic feature. It allows quick and easy tiling.

AREAS OF USE

Suitable for use in internal vertical and horizontal fixing applications. It is used for houses, apartments, offices and indoor spaces for boutique use, wet areas as bathrooms and kitchens with slight humidity.

FEATURES

Material content: High quality cement, additives providing rapid set feature and easy application.

Type : Powder
Color : Grey / white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,8-5,2 lt water / 20 kg powder
Open time : 10-15 minutes
Pot life : 30 minutes
Application temperature: +5 °C - +25 °C
Adjustment time : 20 minutes
Coverage area under tile: minimum 90%
Set time : minimum 12 hours (for light pedestrian traffic)
Grouting time : minimum 6 hours (for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 0,5$ MPa (N/mm²)
- aging with heat : $\geq 0,5$ MPa (N/mm²)
- aging with water : $\geq 0,5$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 0,5$ MPa (N/mm²)
- extended open time (30 mins.): $\geq 0,5$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : limited
Resistance to acids and alkalis : limited
Resistance to thermal shocks : -15 °C - +70 °C

REFERENCE STANDARD

TS EN 12004 / CIFT class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete slabs. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (i.e., gypsum plasters) should be primed with VitrA Fix FILM before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +25 °C must be cooled by damping.
- VitrA Fix RAPID SET is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger devi-

- Ready for grouting in 6 hours and light foot traffic in 12 hours,
- Suitable for renovations and repairs,
- Easy application and excellent bonding onto all cementitious substrates,
- Non-slip, excellent performance for wall tiling.



VitrA Fix RAPID SET

ations, the surface should be smoothed with either **VitrA Fix RM 27** or **VitrA Fix S 30**.

■ **VitrA Fix FLOOR PLUS** adhesive should be used for applications on floors requiring thicker adhesive beds.

MIXING

■ Gradually add 4,8-5,2 lt (24-26%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.

■ The paste should be in a consistence such that it does not flow when handled with a trowel.

■ The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

■ Gradually add 4,8-5,2 lt (24-26%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.

■ The paste should be in a consistence such that it does not flow when handled with a trowel.

■ The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION

■ Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness.

■ The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.

■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.

■ In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured **VitrA Fix RAPID SET** should be used.

■ Grouting must be done at least 6 hours later after adhesive application.

PRECAUTIONS

■ If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.

■ Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.

■ Do not add more water into the mixture once the mixture is prepared.

■ Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.

■ Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.

■ Open time for **VitrA Fix RAPID SET** is 10-15 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.

■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

■ For fixing porcelain based or low porosity (water absorption rate <3%) tiles **VitrA Fix FLEX PORSELEN** is recommended.

■ It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.

■ Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).

■ To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding

PACKAGING

Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

■ When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.

■ The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.

■ When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

■ Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.

■ Wear suitable protective clothing, gloves and eyes/face protection.

■ The product should not be inhaled. Dust mask should be used if necessary.

■ Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix FLOOR PLUS



High performance, flexible and quick-setting pourable tile adhesive



TILE ADHESIVES

DESCRIPTION

Cement based, flexible, pourable tile adhesive with improved adhesion and 100% fixing performance for fixing medium to large sized (<30x60 cm) ceramic tiles, porcelain tiles, natural stones, travertine, marbles, terracotta and bricks onto floors. It is quick setting and allows grouting in 6 hours. It is suitable for applications with thick adhesive bed.

AREAS OF USE

Suitable for use in internal and external, horizontal fixing applications. Ideal for industrial tiling applications and fixing onto heated floors and low porosity substrates such as existing ceramic tiles.

FEATURES

Material content: High quality cement, additives providing flexibility, quick-setting and improved adhesion, thick filling materials.
 Type : Powder
 Color : Grey / white
 Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,0-4,4 lt water / 20 kg powder
 Open time : 15-20 minutes
 Pot life : 30-45 minutes
 Application temperature : +5 °C - +25 °C
 Adjustment time : 30 minutes
 Coverage area under tile : 100%
 Set time : minimum 12 hours (for light pedestrian traffic)
 Grouting time : minimum 6 hours (for horizontal applications)
 Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
 - after 28 days : $\geq 1,0$ MPa (N/mm²)
 - aging with heat : $\geq 1,0$ MPa (N/mm²)
 - aging with water : $\geq 1,0$ MPa (N/mm²)
 - freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
 - open time (10 mins.) : $\geq 0,5$ MPa (N/mm²)
 Flexibility : excellent
 Resistance to acids and alkalis : good (for Ph3 acids)
 Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

EN 12004 / C2F and EN 12002 / S1 class.

APPLICATION SURFACES

Suitable for use on cement based screeds and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates should be primed with **VitrA Fix FILM** before fixing.
- Impervious surfaces should be primed with **VitrA Fix FILM PLUS** before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **VitrA Fix FLOOR PLUS** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with **VitrA Fix S 30**.

- 100% tiling performance (Full Contact),
- Particularly suitable for tiling on floors,
- Excellent performance for industrial flooring,
- Ideal for fixing medium and large sized ceramic tiles, porcelain tiles, natural stones and marbles onto internal and external floors,
- High flexibility and resistance to frost, moisture and thermal shocks.



VitrA Fix FLOOR PLUS

MIXING

- Gradually add 4,0-4,4 lt (20-22%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +25 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate with a suitable notched trowel to achieve the required bed thickness. While fixing large sized tiles, for easier application U9, E10 or marble type notched trowels are recommended.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. No hammering on the tile is needed, as the adhesive is pourable and will easily spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured VitrA Fix FLOOR PLUS should be used.
- Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for VitrA Fix FLOOR PLUS is 15-20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer VitrA Fix FILM PLUS or the mixture prepared by mixing VitrA Fix FLEX PORSELEN and VitrA Fix LATEX in equal amounts is recommended.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (VitrA Fix HYDROSTOP, VitrA Fix PROOF S or VitrA Fix PROOF).
- To improve the technical performance of the adhesive, it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX).
- VitrA Fix RUSTIK 3-20 mm grouting material may be used as a decorative joint grout with natural stones and earthenware tiles.

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U9 (9x9x9) mm	4 - 5 kg	Single Bonding
E10 (8x10x20) mm	6 - 8 kg	Single Bonding

PACKAGING

Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix ULTRA SYSTEM



Two components, high performance
tile adhesive



DESCRIPTION

Two components, cement based, high performance super flexible tile adhesive with improved adhesion for fixing small to large sized ($\leq 60 \times 60$ cm) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta, thermal insulation plates and bricks onto walls and floors. It is excellent particularly for fixing onto low porosity substrates. It is non-slip by its tixotropic feature. It has extended application time allowing a quick and easy tiling.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling onto industrial floors, external facades, heated floors and low porosity substrates such as existing ceramic tiles and in olympic swimming pools, wet areas, terraces and wide areas. With its high performance, it provides an easy tiling of large sized tiles onto uneasy substrates.

FEATURES

Material content
- powder comp. (A): High quality cement, additives providing flexibility and improved adhesion.
- liquid comp. (B) : Synthetic resin based latex liquid.
Type : Powder (component A) + liquid (component B)
Color : Grey (component A) / white (component B)
Density : 1,3 gr/cm³ (component A) / 1,01 gr/cm³ (component B)

APPLICATION PROPERTIES

Mixture rate : 20 kg (component A) + 5,4 lt (component B)
Open time : 30 minutes
Pot life : 3 hours
Application temperature: +5 °C - +35 °C
Adjustment time : 25 minutes
Coverage area under tile: minimum 90%
Set time : minimum 24 hours (for light pedestrian traffic)
Grouting time : minimum 24 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,5$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- extended open time (30 mins.): $\geq 1,0$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : excellent
Resistance to acids and alkalis : excellent
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

EN 12004 / C2TE and EN 12002 / S1 class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (i.e., gypsum plasters) should be primed with VitrA

- Super flexible tile adhesive with two components,
- Ideal for tiling on industrial floors, external facades and olympic swimming pools,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Particularly suitable for fixing on heated floors and low porosity substrates such as existing old ceramic tiles.



VitrA Fix ULTRA SYSTEM

Fix FILM before fixing.

- Impervious surfaces should be primed with **VitrA Fix FILM PLUS** before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **VitrA Fix ULTRA SYSTEM** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or **VitrA Fix S 30**.
- **VitrA Fix FLOOR PLUS** adhesives should be used for applications on floors requiring thicker adhesive beds.

MIXING

- Gradually add 5,4 lt of liquid component B to 20 kg of powder component A, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing (≤ 350 rpm).
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces, and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes $>33 \times 33$ cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades.
- Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add more or less of the components into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **VitrA Fix ULTRA SYSTEM** is 30 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering

heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.
- When tiling on walls, the weight of tiles per m^2 should not exceed 30 kg.
- Porcelain tiles sized between 300 cm^2 (15×20 cm) to 900 cm^2 (30×30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).
- In external facade tiling of large sized tiles; double buttering method should be applied and joint widths should be minimum 4 mm with expansion joints of 6-10 mm of width laid through storey transitions. **VitrA Fix FLEX 3-10 mm** with **VitrA Fix LATEX** additive is recommended for external facade tiling. The expansion joints should be filled with super elastic mastics or sealants.

COVERAGE

The approximate coverage amount (kg/ m^2) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

Set consisting of sack of 20 kg (component A) + plastic drum of 5,4 lt (component B)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix HP



High performance and flexible
ready mixed tile adhesive



TILE ADHESIVES

DESCRIPTION

Acrylic dispersion based, high performance and flexible ready mixed tile adhesive with improved adhesion for fixing small to large sized (<30x60 cm) ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta, thermal insulation plates and bricks onto walls and floors. It is excellent particularly for fixing onto high porosity substrates. It is non-slip by its tixotropic feature. It allows a quick and easy tiling.

AREAS OF USE

Suitable for use in vertical and horizontal in internal, and vertical in external fixing applications. Ideal for tiling in wet areas. It is particularly suitable for tiling onto cement based chip boards, precast-concrete, gypsum board, and gypsum plastered, wooden surfaces. It is suitable for fixing tiles with water absorption rate >3% on painted or existing tile surfaces.

FEATURES

Material content: Dispersion based fillings and binders, synthetic resin, additives providing flexibility and improved adhesion.
 Type : Ready mixed dispersion in paste form
 Color : White
 Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : ready mixed
 Open time : 20 minutes
 Application temperature: +5 °C - +35 °C
 Adjustment time : 25 minutes
 Coverage area under tile: minimum 90%
 Set time : minimum 24 hours (for light pedestrian traffic)
 (time may vary due to substrate porosity)
 Grouting time : minimum 24 hours
 (for vertical and horizontal applications)
 Final set time : 14 days (23 °C, 50% relative humidity)
 (time may vary due to substrate porosity)

TECHNICAL PERFORMANCE

Tensile strength
 - after 14 days : ≥ 1,0 MPa (N/mm²)
 - aging with heat : ≥ 1,0 MPa (N/mm²)
 - aging with water : ≥ 0,5 MPa (N/mm²)
 Shear : ≤ 0,5 mm
 Flexibility : excellent
 Resistance to alkalis : limited
 Resistance to thermal shocks: -30 °C - +70 °C
 Resistance to moisture : good

REFERENCE STANDARD

TS EN 12004 / D2T class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and timber, concrete and gypsum based substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth or wet. Relative humidity for the substrate must be below 5%.
- No priming is required for high porosity substrates (i.e., gypsum plasters) before fixing.
- Impervious surfaces should be primed with **VitrA Fix FILM PLUS** before fixing. No priming is required if tile porosity is high (water absorption rate >3%).

- Excellent tiling on gypsum based boards and plasters, cement based chip boards and pre-cast concrete,
- Excellent for all kinds of porcelain tiles, natural stones and marbles,
- Easy and quick tiling in renovation and repairment works,
- Non-slip, excellent performance for wall tiling,
- High flexibility and resistance to frost, moisture and thermal shocks.



VitrA Fix HP

- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **VitrA Fix HP** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 5 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or **VitrA Fix S 30**.
- **VitrA Fix COTTO** or **VitrA Fix FLOOR PLUS** adhesives should be used for applications on floors requiring thicker adhesive beds.

MIXING

- The adhesive ready-mixed and no mixing is required.
- It is in paste form and can be applied directly for tiling. Never add any additives (water, latex, etc.) into the ready-mixed paste.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. Glass tiles, natural stones and marbles should be fixed with double buttering method. For efficiency, V5 or V6 type notched trowels are recommended.
- In fixing transparent and light coloured tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- Grouting must be done at least 24 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add any water or additive into the adhesive.
- Do not apply the adhesive directly onto the existing ceramic tiles (for fixing tiles with water absorption ratio <3%) and metal, plastic, PVC, aerated concrete surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.
- Do not use for external flooring tiling. It is not suitable for areas under permanent water pressure (pools, water tanks, etc.).
- On wet areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **VitrA Fix HP** is 20 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.
- When tiling on walls, the weight of tiles per m² should not exceed 30 kg.
- Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed (no priming is required for tiles with water absorption rate >3%). As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to tile on aerated concrete surfaces when primed as described above.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
V5 (5x5) mm	2 kg/mm ² 3 kg/mm ²	Single Bonding Double Bonding
V6 (6x6) mm	2,5 kg/mm ² 3,5 kg/mm ²	Single Bonding Double Bonding

PACKAGING

- Plastic cans of 15 kg (48 cans / 720 kg on a pallet)
- Plastic cans of 5 kg

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 cans should be overlaid for storage. Do not overlay pallet on pallet.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to acrylic and resin content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.

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VitrA Fix TIMBER FLEX



Flexible tile adhesive for wooden floors



DESCRIPTION

Cement based, rapid setting and flexible tile adhesive with improved adhesion for fixing medium to large sized (<30x60 cm) ceramic tiles and porcelain tiles onto existing wooden or timber floors. Due to rapid setting feature it provides quick tiling.

AREAS OF USE

Suitable for use in internal and horizontal fixing applications. Ideal for tiling onto existing wooden and timber floors.

FEATURES

Material content: High quality cement, additives providing flexibility, rapid-setting and improved adhesion.

Type : Powder
Color : Grey/white
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,4-5,2 lt water / 20 kg powder
Open time : 10-15 minutes
Pot life : 30 minutes
Application temperature : +5 °C - +25 °C
Adjustment time : 10 minutes
Coverage area under tile : minimum 90%
Set time : minimum 12 hours (for light pedestrian traffic)
Grouting time : minimum 6 hours (for horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- open time (10 mins.) : $\geq 0,5$ MPa (N/mm²)
Flexibility : excellent
Resistance to acids and alkalies: good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

EN 12004 / C2F class.

APPLICATION SURFACES

Suitable for use on existing wooden or timber substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete, wax and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Existing floors should not be floating timber floors, rather should be fixed to the floor within intervals of at most 30 cm.
- Substrates should be primed with **VitrA Fix FILM** before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +25 °C must be cooled by damping.
- **VitrA Fix TIMBER FLEX** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 5 mm.

MIXING

- Gradually add 4,4-5,2 lt (22-26%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled

- Ideal for fixing medium and large sized ceramic tiles, porcelain tiles, natural stones and marbles onto existing wooden floors,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Quick tiling with rapid setting feature.



VitrA Fix TIMBER FLEX

electrical drill-mixer for mixing.

- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +25 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. While fixing large sized tiles, for easier application U9, E10 or marble type notched trowels are recommended.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- In fixing transparent and light colored tiles and natural stones, a sample application should be carried to observe the possibility of the formation of stain and shades. In case, white coloured VitrA Fix TIMBER FLEX should be used.
- Grouting must be done at least 6 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for VitrA Fix TIMBER FLEX is 10-15 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer VitrA Fix FILM PLUS or the mixture prepared by

mixing VitrA Fix FLEX PORSELEN and VitrA Fix LATEX in equal amounts is recommended.

- High porosity substrates (i.e., gypsum plasters) should be primed with VitrA Fix FILM before fixing.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (VitrA Fix HYDROSTOP, VitrA Fix PROOF S of VitrA Fix PROOF).
- To improve the technical performance of the adhesive, it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX).
- VitrA Fix EPOXY grouting material should be used for joints.

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix MARBLE & STONE



Marble and natural stone adhesive



DESCRIPTION

Cement based, rapid setting tile adhesive with improved adhesion for fixing small to medium sized (<33x33 cm) marbles and natural stones and ceramic tiles. Due to rapid setting feature it provides quick tiling.

AREAS OF USE

Suitable for use in internal, vertical and horizontal fixing applications. It is used for houses, apartments, offices and indoor spaces for boutique use, wet areas as bathrooms and kitchens with slight humidity.

FEATURES

Material content: High quality cement, additives providing rapid-setting and improved adhesion.

Type : Powder
Color : White
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,8-5,6 lt water / 20 kg powder
Open time : 10-15 minutes
Pot life : 30 minutes
Application temperature: +5 °C - +25 °C
Adjustment time : 15 minutes
Coverage area under tile: minimum 95%
Set time : minimum 12 hours (for light pedestrian traffic)
Grouting time : minimum 6 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 0,5$ MPa (N/mm²)
- aging with heat : $\geq 0,5$ MPa (N/mm²)
- aging with water : $\geq 0,5$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 0,5$ MPa (N/mm²)
- open time (10 mins.) : $\geq 0,5$ MPa (N/mm²)
Flexibility : limited
Resistance to acids and alkalis: limited
Resistance to thermal shocks : -15 °C - +70 °C

REFERENCE STANDARD

EN 12004 / CIF class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete slabs. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates should be primed with VitrA Fix FILM before fixing.
- Impervious surfaces should be primed with VitrA Fix FILM PLUS before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +25 °C must be cooled by damping.
- VitrA Fix MARBLE & STONE is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either VitrA Fix RM 27 or VitrA Fix S 30.

- Suitable for fixing small to medium sized marbles and natural stones,
- Resistant to frost, moisture and thermal shocks,
- Quick tiling with rapid setting feature,
- Super white.



VitrA Fix MARBLE & STONE

MIXING

- Gradually add 4,8-5,6 lt (24-28%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

- The adhesive should be used at an ambient temperature range of +5 °C - +25 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Apply the adhesive on the substrate (for tile sizes >33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. While fixing medium to large sized tiles, for easier application U9, E10 or marble type notched trowels are recommended.
- The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.
- In fixing green marble or granite and their agglomerates, a sample application should be carried to observe the possibility of the formation of stain and shades.
- Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.
- Grouting must be done at least 6 hours later after adhesive application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Open time for **VitrA Fix MARBLE & STONE** is 10-15 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.
- When tiling on walls, the weight of tiles per m2 should not exceed 30 kg. Heavy marbles and natural stones must be supported in case of slip.

SPECIAL CONDITIONS

- For fixing porcelain based or low porosity (water absorption rate <3%) tiles **VitrA Fix MARBLE & STONE SELECT** is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.
- Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).
- To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

- Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix MARBLE & STONE SELECT



High performance marble and natural stone adhesive



DESCRIPTION

Cement based, thick bed, high performance tile adhesive with improved flexibility and adhesion for fixing medium to large sized (<30x60 cm) marbles and natural stones, travertine, terracotta and bricks, ceramic and porcelain tiles, glass mosaics and tiles onto walls and floors. Due to rapid setting feature it provides quick tiling. It is non-slip by its tixotropic feature.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal fixing applications. Ideal for tiling in wet areas, terraces and wide areas.

FEATURES

Material content: High quality cement, additives providing rapid-setting and improved adhesion, thick filling materials and binders.

Type : Powder
Color : White
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,8-5,2 lt water / 20 kg powder
Open time : 10-15 minutes
Pot life : 30 minutes
Application temperature: +5 °C - +25 °C
Adjustment time : 15 minutes
Coverage area under tile: minimum 95%
Set time : minimum 12 hours (for light pedestrian traffic)
Grouting time : minimum 6 hours
(for vertical and horizontal applications)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Tensile strength
- after 28 days : $\geq 1,0$ MPa (N/mm²)
- aging with heat : $\geq 1,0$ MPa (N/mm²)
- aging with water : $\geq 1,0$ MPa (N/mm²)
- freeze-thaw cycle : $\geq 1,0$ MPa (N/mm²)
- open time (10 mins.) : $\geq 0,5$ MPa (N/mm²)
Shear : $\leq 0,5$ mm
Flexibility : excellent
Resistance to acids and alkalis: good
Resistance to thermal shocks : -30 °C - +70 °C

REFERENCE STANDARD

EN 12004 / C2FT class.

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete substrates. For application on alternative surfaces please refer to the Special Conditions section.

SURFACE PREPARATION

- Substrate must be clean in order to ensure the adhesive bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (ie, gypsum plasters) should be primed with VitrA Fix FILM before fixing.
- Impervious surfaces should be primed with VitrA Fix FILM PLUS before fixing.
- The surfaces exposed to direct sun light and have a surface temperature above +25 °C must be cooled by damping .
- VitrA Fix FLEX RAPID is not a leveling material. The deepest point of the

- Suitable for fixing large sized marbles and natural stones,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Quick tiling with rapid setting feature,
- Super white.



VitrA Fix MARBLE & STONE SELECT

application surface in 2 m long gauge should not exceed 7 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or **VitrA Fix S 30**.

■ **VitrA Fix FLOOR PLUS** adhesive should be used for applications on floors requiring thicker adhesive beds.

MIXING

■ Gradually add 4,8-5,2 lt (24-26%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.

■ The paste should be in a consistence such that it does not flow when handled with a trowel.

■ The paste should rest for 3 minutes prior to application and should be applied after remixing.

APPLICATION CONDITIONS

■ The adhesive should be used at an ambient temperature range of +5 °C - +25 °C.

■ Application surface temperature must be above +5 °C. The surface should have no risk of freezing.

■ Application on hot surfaces, and during sunny and/or windy weather is not recommended.

APPLICATION

■ Apply the adhesive on the substrate (for tile sizes > 33x33 cm, adhesive should be buttered onto the tile back as well) with a suitable notched trowel to achieve the required bed thickness. While fixing medium to large sized tiles, for easier application U9, E10 or marble type notched trowels are recommended.

■ The tiles must be fixed within the open time of adhesive and pressed on with a twisting and sliding action to achieve a good contact. The tile should be gently hammered with a rubber hammer in order to provide the stability of bonding and the adhesive to spread and fully cover the tile back. Lift an occasional tile after fixing to verify that the required contact is being achieved.

■ In fixing green marble or granite and their agglomerates, a sample application should be carried to observe the possibility of the formation of stain and shades.

■ Excess adhesive must be cleaned off from the tiles and joints with a damp cloth or sponge before it hardens.

■ Grouting must be done at least 6 hours later after adhesive application.

PRECAUTIONS

■ If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.

■ Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.

■ Do not add more water into the mixture once the mixture is prepared.

■ Do not apply the adhesive directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.

■ Do not tile onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling.

■ To prevent water puddles, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.

■ Open time for **VitrA Fix MARBLE & STONE SELECT** is 10-15 minutes. The open time will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness on the surface of the adhesive should be tested by touching in case of early setting. If the adhesive does not get on the fingers, it means that the open time has expired. In such a case, fixing after wetting the adhesive surface is not applicable. The dried adhesive must be removed from the substrate and new adhesive should be reapplied. The open time may extend in lower temperatures and/or high humidity conditions, or when tiling onto impervious or sealed surfaces.

■ Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided

into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.

■ Tiled areas must be protected for at least 24 hours from direct sun light, frost and rain.

■ When tiling on walls, the weight of tiles per m² should not exceed 30 kg. Heavy marbles and natural stones must be supported in case of slip.

■ Porcelain tiles sized between 300 cm² (15x20 cm) to 900 cm² (30x30 cm) are limited up to 4 m for facade tiling. Please consult to the technical support for larger sized tile applications at higher elevations.

SPECIAL CONDITIONS

■ For fixing porcelain based or low porosity (water absorption rate <3%) tiles **VitrA Fix MARBLE & STONE SELECT** is recommended.

■ It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.

■ Before tiling wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).

■ To improve the technical performance of the adhesive, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the application surface, tile size, and the type of trowel.

SIZE OF NOTCHED TROWEL	COVERAGE	APPLICATION METHOD
U6 (6x6x6) mm	3 - 4 kg 5 - 6 kg	Single Bonding Double Bonding
U9 (9x9x9) mm	4 - 5 kg 6 - 8 kg	Single Bonding Double Bonding
E10 (8x10x20) mm	6 - 8 kg 7 - 9 kg	Single Bonding Double Bonding

PACKAGING

■ Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

■ When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.

■ The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.

■ When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

■ Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.

■ Wear suitable protective clothing, gloves and eyes/face protection.

■ The product should not be inhaled. Dust mask should be used if necessary.

■ Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix 1-6 mm



Grouting material



DESCRIPTION

Cement based, plasticized and water repellent grouting material for joints 1-6 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value, thus crack free. It allows a quick and easy grouting.

AREAS OF USE

Suitable for use in internal, vertical and horizontal grouting applications. Ideal for tiling in wet areas, terraces and wide areas with **VitrA Fix LATEX** additive.

FEATURES

Material content: High quality cement, additives providing water repellency and fine fillings.

Type : Powder
Color : List colours
Density : 1,4 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 5,6-6,4 lt water / 20 kg powder
Pot life : 1 hour
Application temperature : +5 °C - +35 °C
Joint width : 1-6 mm
Grouting time : as instructed on the adhesive technical sheet.
Set time : minimum 24 hours (for light pedestrian traffic)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes) : < 5 gr
Water absorption (after 240 minutes) : < 10 gr
Resistance to moisture : good
Resistance to alkalis : good
Resistance to acids : good (for Ph > 3 acids)
Temperature resistance : -30 °C - +70 °C
Bending strength : ≥ 3,5 MPa (N/mm²)
Bending strength (freeze-thaw cycle) : ≥ 3,5 MPa (N/mm²)
Compressive strength : ≥ 15 MPa (N/mm²)
Compressive strength (freeze-thaw cycle) : ≥ 15 MPa (N/mm²)
Abrasion strength : < 2000 mm³
Shrinkage : < 2 mm/m

REFERENCE STANDARD

EN 13888 / CGI class.

SURFACE PREPARATION

- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (i.e., gypsum plasters or non-glazed tiles) should be wetted before grouting.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 5,6-6,4 lt (28-32%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

- Ideal for all kinds and sizes of tiles,
- Crack free formula,
- Gives full colour and easily applied,
- Improved water repellency and easy cleaning.



VitrA Fix 1-6 mm

- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The grouting material should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the grouting material in the joints completely with a suitable squeegee or a rubber float leaving no voids. Work on a small area at a time. Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the grouting material within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the grouting material.
- Time for cleaning the excess grouting material from tile surface is when the grout has started to dry. Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Exact time may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.
- To clean the tiles use a dampened cleaning pad or sponge. Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved. Use only clean and non-chalky water to dampen the pad or sponge. Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Final cleaning to remove the grouting material residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth in circular motion.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Test the grout on a spare tile before grouting against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.
- Be particular about tiles with soft surface which can be scratched during grouting.
- Minimum 7 days of set time should be waited to fill in the pools after grouting.
- For **VitrA Fix 1-6 mm**, pot life and waiting time for initial cleaning are 1 hour and 10-15 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates). On this account, wetness of the grouting material should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when grouting impervious or sealed tiles.
- Minimum application thickness of the grouting should be at least 3 mm. Thinner grouts would be weak and easily scraped.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- Cementitious grouting materials have improved water repellency but not absolutely impermeable. Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).
- Common cleaning materials like bleach, lime remover and etc. may cause surface discolouration and variation. Use **VitrA Fix JOINT CLEANER**.

SPECIAL CONDITIONS

- To improve the technical performance of the grouting material (improved resistance and flexibility and water repellency features), it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.

$$\text{Grout Coverage (kg/m}^2\text{)} = (\text{A}+\text{B})\times\text{C}\times\text{D}\times\text{E} / (\text{A}\times\text{B})$$

- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density

PACKAGING

Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)
Kraft sacks of 10 kg (100 sacks / 1000 kg on a pallet)
Polythene bags of 5 kg (in boxes of 20 kg, 36 boxes / 720 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix FLEX 0-3 mm



Flexible grouting material



GROUTING MATERIALS

DESCRIPTION

Cement based, plasticized and fine grained grouting material with improved flexibility and water repellency, for joints 0-3 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value, thus crack free. It gives full colour and allows a quick and easy grouting. It prevents scratching of the tile surface with its fine grained composition.

AREAS OF USE

Suitable for use in internal and external areas, vertical and horizontal grouting applications. Ideal for pools, terraces and wet areas with improved water repellency feature. Particularly suitable for applications onto heated floors and wide floors with high flexibility feature. It is particularly suitable for glass mosaic, glass tile, rectified tile and granite tile applications.

FEATURES

Material content: High quality cement, additives providing water repellency and flexibility, and fine fillings.

Type : Powder
Color : List colours
Density : 1,4 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,8-7,2 lt water / 20 kg powder
Pot life : 1 hour
Application temperature: +5 °C - +35 °C
Joint width : 0-3 mm
Grouting time : as instructed on the adhesive technical sheet.
Set time : minimum 24 hours (for light pedestrian traffic)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes) : < 2 gr
Water absorption (after 240 minutes) : < 5 gr
Resistance to moisture : excellent
Resistance to alkalis : excellent
Resistance to acids : good (for Ph > 3 acids)
Temperature resistance : -30 °C - +70 °C
Bending strength : ≥ 3,5 MPa (N/mm²)
Bending strength (freeze-thaw cycle) : ≥ 3,5 MPa (N/mm²)
Compressive strength : ≥ 15 MPa (N/mm²)
Compressive strength (freeze-thaw cycle) : ≥ 15 MPa (N/mm²)
Abrasion strength : < 1000 mm³
Shrinkage : < 2 mm/m

REFERENCE STANDARD

EN 13888 / CG2 class.

SURFACE PREPARATION

- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (ie, gypsum plasters or non-glazed tiles) should be wetted before grouting.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 6,8-7,2 lt (34-36%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled

- High flexibility and resistance to frost, moisture and thermal shocks,
- Resistant to UV and outdoor weather conditions,
- Suitable for grouting glass tile and mosaic applications,
- Suitable for application onto heated floors and low porosity substrates such as existing ceramic tiles,
- Improved water repellency and easy cleaning. Ideal for pools, terraces and wet areas.



VitrA Fix FLEX 0-3 mm

electrical drill-mixer for mixing.

- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The grouting material should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the grouting material in the joints completely with a suitable squeegee or a rubber float leaving no voids. Work on a small area at a time. Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the grouting material within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the grouting material.
- Time for cleaning the excess grouting material from tile surface is when the grout has started to dry. Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Exact time may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.
- To clean the tiles use a dampened cleaning pad or sponge. Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved. Use only clean and non-chalky water to dampen the pad or sponge. Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Final cleaning to remove the grouting material residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth in circular motion.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Test the grout on a spare tile before grouting against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.
- Be particular about tiles with soft surface which can be scratched during grouting.
- Minimum 7 days of set time should be waited to fill in the pools after grouting.
- For **VitrA Fix FLEX 0-3 mm**, pot life and waiting time for initial cleaning are 1 hour and 10-15 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness of the grouting material should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when grouting impervious or sealed tiles.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided

into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- Cementitious grouting materials have improved water repellency but not absolutely impermeable. Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).
- Common cleaning materials like bleach, lime remover and etc. may cause surface discolouration and variation. Use **VitrA Fix JOINT CLEANER**.

SPECIAL CONDITIONS

- To improve the technical performance of the grouting material (improved resistance and flexibility and water repellency features), it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.

$$\text{Grout Coverage (kg/m}^2\text{)} = (\text{A}+\text{B})\times\text{C}\times\text{D}\times\text{E} / (\text{A}\times\text{B})$$

- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,4)

PACKAGING

Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)
Kraft sacks of 10 kg (100 sacks / 1000 kg on a pallet)
Polythene bags of 5 kg (in boxes of 20 kg, 36 boxes / 720 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix FLEX 3-10 mm



Flexible grouting material



DESCRIPTION

Cement based, plasticized and coarse grained grouting material with improved flexibility and water repellency, for joints 3-10 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value, thus crack free. It allows a quick and easy grouting.

AREAS OF USE

Suitable for use in internal and external areas, vertical and horizontal grouting applications. Ideal for pools, terraces and wet areas with improved water repellency feature. Particularly suitable for applications onto heated floors, facades, timber substrates and wide floors with high flexibility feature. Applicable on industrial floors requiring any chemical resistance.

FEATURES

Material content: High quality cement, additives providing water repellency and flexibility, and thick fillings.

Type : Powder
Color : List colours
Density : 1,4 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 5,6-6,4 lt water / 20 kg powder
Pot life : 1 hour
Application temperature : +5 °C - +35 °C
Joint width : 1-6 mm
Grouting time : as instructed on the adhesive technical sheet.
Set time : minimum 24 hours (for light pedestrian traffic)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes) : < 2 gr
Water absorption (after 240 minutes) : < 5 gr
Resistance to moisture : excellent
Resistance to alkalis : excellent
Resistance to acids : good (for Ph > 3 acids)
Temperature resistance : -30 °C - +70 °C
Bending strength : ≥ 3,5 MPa (N/mm²)
Bending strength (freeze-thaw cycle) : 3,5 MPa (N/mm²)
Compressive strength : ≥ 15 MPa (N/mm²)
Compressive strength (freeze-thaw cycle) : ≥ 15 MPa (N/mm²)
Abrasion strength : < 1000 mm³
Shrinkage : < 2 mm/m

REFERENCE STANDARD

TS EN 13888 / CG2 class.

SURFACE PREPARATION

- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (i.e., gypsum plasters or non-glazed tiles) should be wetted before grouting.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 5,6-6,4 lt (28-32%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.

- High flexibility and resistance to frost, moisture and thermal shocks,
- Resistant to UV and outdoor weather conditions,
- With high abrasion strength, suitable for floors under heavy pedestrian traffic,
- Particularly suitable for application onto heated floors and low porosity substrates such as existing ceramic tiles,
- Improved water repellency and easy cleaning. Ideal for pools, terraces and wet areas.



VitrA Fix FLEX 3-10 mm

- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The grouting material should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the grouting material in the joints completely with a suitable squeegee or a rubber float leaving no voids. Work on a small area at a time. Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the grouting material within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the grouting material.
- Time for cleaning the excess grouting material from tile surface is when the grout has started to dry. Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Exact time may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.
- To clean the tiles use a dampened cleaning pad or sponge. Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved. Use only clean and non-chalky water to dampen the pad or sponge. Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Final cleaning to remove the grouting material residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth in circular motion.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Test the grout on a spare tile before grouting against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.
- Be particular about tiles with soft surface which can be scratched during grouting.
- Minimum 7 days of set time should be waited to fill in the pools after grouting.
- For **VitrA Fix FLEX 3-10 mm**, pot life and waiting time for initial cleaning are 1 hour and 10-15 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness of the grouting material should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when grouting impervious or sealed tiles.
- Minimum application thickness of the grouting should be at least 3 mm. Thinner grouts would be weak and easily scraped.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement

joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- Cementitious grouting materials have improved water repellency but not absolutely impermeable. Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).
- Common cleaning materials like bleach, lime remover and etc. may cause surface discolouration and variation. Use **VitrA Fix JOINT CLEANER**.

SPECIAL CONDITIONS

- To improve the technical performance of the grouting material (improved resistance and flexibility and water repellency features), it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.

$$\text{Grout Coverage (kg/m}^2\text{)} = \frac{(\text{A}+\text{B})\times\text{C}\times\text{D}\times\text{E}}{(\text{A}\times\text{B})}$$

- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,4)

PACKAGING

Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)
Kraft sacks of 10 kg (100 sacks / 1000 kg on a pallet)
Polythene bags of 5 kg (in boxes of 20 kg, 36 boxes / 720 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix POOL G 2-10 mm



Fast setting flexible grouting material for pools



GROUTING MATERIALS

DESCRIPTION

Cement based, plasticized fast setting grouting material with improved chemical resistance to alkalies and weak acids and high flexibility and water repellency, for joints 2-10 mm of ceramic tiles, porcelain tiles, glass mosaics and tiles, natural stones, travertine, marbles, terracotta. It has a minimized shrinkage value, thus crack free. It allows a quick and easy grouting, ready to service in 3 hours.

AREAS OF USE

Suitable for use in internal and external areas, vertical and horizontal grouting applications. Ideal for pools, terraces and wet areas with improved water repellency feature. Particularly suitable for applications requiring chemical resistance (to alkalies and weak acids) such as industrial floors or laboratories. Applicable in water tanks with salty or sulfated water.

FEATURES

Material content: High quality cement, additives providing water repellency and flexibility, and fine fillings.

Type : Powder
Color : List colours
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 3,3-3,5 lt water / 15 kg powder
Pot life : 45 minutes
Application temperature: +10 °C - +25 °C
Joint width : 2-10 mm
Grouting time : as instructed on the adhesive technical sheet.
Set time : minimum 3 hours (for light pedestrian traffic)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes) : < 2 gr
Water absorption (after 240 minutes) : < 5 gr
Resistance to moisture : excellent
Resistance to alkalies : excellent
Resistance to acids : good (for Ph > 3 acids)
Temperature resistance : -30 °C - +70 °C
Bending strength : ≥ 3,5 MPa (N/mm²)
Bending strength (freeze-thaw cycle) : ≥ 3,5 MPa (N/mm²)
Compressive strength : ≥ 15 MPa (N/mm²)
Compressive strength (freeze-thaw cycle) : ≥ 15 MPa (N/mm²)
Abrasion strength : < 1000 mm³
Shrinkage : < 2 mm/m

REFERENCE STANDARD

TS EN 13888 / CG2 class.

SURFACE PREPARATION

- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (ie, gypsum plasters or non-glazed tiles) should be wetted before grouting.
- The surfaces exposed to direct sun light and have a surface temperature above +25 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 3,3-3,5 lt (22-23%) of clean water to 15 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled

- Suitable for pools and areas requiring chemical resistance,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Resistant to UV and outdoor weather conditions,
- With high abrasion strength, suitable for floors under heavy pedestrian traffic,
- Improved water repellency and easy cleaning.



VitrA Fix POOL G-10 mm

electrical drill-mixer for mixing.

- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.
- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The grouting material should be applied at an ambient temperature range of +5 °C - +25 °C .
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the grouting material in the joints completely with a suitable squeegee or a rubber float leaving no voids. Work on a small area at a time. Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the grouting material within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the grouting material.
- Time for cleaning the excess grouting material from tile surface is when the grout has started to dry. Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Exact time may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.
- To clean the tiles use a dampened cleaning pad or sponge. Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved. Use only clean and non-chalky water to dampen the pad or sponge. Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Final cleaning to remove the grouting material residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth in circular motion.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with **VitrA Fix NET** tile cleaning material to loosen and remove these residues.

PRECAUTIONS

- The grouting material is a fast setting product. During application phases always pay attention to sudden setting, especially when applied outdoor under sun.
- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticeable with darker grouting colours.
- Test the grout on a spare tile before grouting against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.
- Be particular about tiles with soft surface which can be scratched during grouting.
- Minimum 7 days of set time should be waited to fill in the pools after grouting.
- For **VitrA Fix POOL G 2-10 mm**, pot life and waiting time for initial cleaning are 45 minutes and 10 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness of the grouting material should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when grouting impervious or sealed tiles.
- Minimum application thickness of the grouting should be at least 3 mm. Thinner grouts would be weak and easily scraped.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads

formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- Cementitious grouting materials have improved water repellency but not absolutely impermeable. Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** or **VitrA Fix PROOF**).
- Common cleaning materials like bleach, lime remover and etc. may cause surface discolouration and variation. Use **VitrA Fix JOINT CLEANER**.

SPECIAL CONDITIONS

- To improve the technical performance of the grouting material (improved resistance and flexibility and water repellency features), it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.

Grout Coverage (kg/m²) = (A+B)xCxDxE / (AxB)

- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,4)

PACKAGING

Plastic cans of 15 kg (44 cans / 660 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix RUSTIK 3-20 mm



Rustic grouting material



DESCRIPTION

Cement based, plasticized and water repellent, course grained grouting material with a natural appearance for joints 3-20 mm. Wide joint application allows natural effects on regular or random formatted natural stones, travertine, marbles, terracotta, bricks and ceramic tiles. It has a minimized shrinkage value, thus crack free. It allows a quick and easy grouting.

AREAS OF USE

Suitable for use in internal, vertical and horizontal grouting applications. Ideal for applications of decorative tile coatings in pergolas, terraces and sidewalks.

FEATURES

Material content: High quality cement, additives providing water repellency and thick fillings.

Type : Powder
Color : Grey
Density : 1,55 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,0-4,8 lt water / 20 kg powder
Pot life : 1 hour
Application temperature : +5 °C - +35 °C
Joint width : 3 - 20 mm
Grouting time : as instructed on the adhesive technical sheet.
Set time : minimum 24 hours (for light pedestrian traffic)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes) : < 5 gr
Water absorption (after 240 minutes) : < 10 gr
Resistance to moisture : good
Resistance to alkalis : good
Temperature resistance : -30 °C - +70 °C
Bending strengt : ≥ 3,5 MPa (N/mm²)
Bending strength (freeze-thaw cycle) : ≥ 3,5 MPa (N/mm²)
Compressive strength : ≥ 15 MPa (N/mm²)
Compressive strength (freeze-thaw cycle) : ≥ 15 MPa (N/mm²)
Abrasion strength : < 2000 mm³
Shrinkage : < 2 mm/m

REFERENCE STANDARD

EN 13888 / CGI class.

SURFACE PREPARATION

- Grouting should start after the adhesive has set and dried. Grouting material's colour may taint due to adhesive's cement content and colour.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- Joints on high porosity substrates or surfaces (i.e., gypsum plasters or non-glazed tiles) should be wetted before grouting.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping. If not, early shrinkage causing cracks will occur due to immediate mixing water loss by evaporation.

MIXING

- Gradually add 4,0-4,8 lt (20-24%) of clean water to 20 kg of powder, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should be in a consistence such that it does not flow when handled with a trowel.
- The paste should rest for 5 minutes prior to application and should be applied after remixing.

- Ideal for applications of tile decorative coatings in pergolas, terraces and sidewalks,
- Crack free formula,
- Grey coloured and easily applied,
- Improved water repellency and easy cleaning.



VitrA Fix RUSTIK 3-20 mm

- Do not add more water than specified to get a fluid form or extend pot life (working time).

APPLICATION CONDITIONS

- The grouting material should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the grouting material in the joints completely with a suitable squeegee or a rubber float leaving no voids. Work on a small area at a time. Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the grouting material within the joints may be removed causing a deformed grout surface. Always follow the same direction across tiles when applying the grouting material.
- Time for cleaning the excess grouting material from tile surface is when the grout has started to dry. Time is 10-15 minutes in moderate conditions, but it may vary due to ambient conditions (ambient temperatures, humidity and etc.). Exact time may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.
- To clean the tiles use a dampened cleaning pad or sponge. Move the pad or sponge diagonally (at 45°) or in circular motion across the tiles in order not to cause any deformations. Continue wiping the tiles until all residues are moved. Use only clean and non-chalky water to dampen the pad or sponge. Wet cleaning will cause the set grout to be weak, discrete holes and grains on grout surface, and surface discoloration and variation which will be more noticeable with darker grouting colours.
- Final cleaning to remove the grouting material residues should be done when dry (in 1 day at the very latest). The tiles should be cleaned and polished with a clean and dry cloth in circular motion.
- In order to obtain a smooth and aesthetic appearance: Fill the joint with grouting material overflowing. Wait for a few minutes to let the material shrink. Wipe off excess materials from grouts. Joints should be drawn with a grout pen one by one to obtain a smooth appearance. Cleaning should be done with a stiff brush after complete drying (24 hours later).
- To obtain a grainy appearance: Grouting material should be filled into the joint space diagonally with a rubber scraper. Wait for a few minutes, and then wipe the surface with a damp sponge.
- If any residues remain after final cleaning, wait for 10 days and treat the tile with VitrA Fix NET tile cleaning material to loosen and remove these residues.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more water into the mixture or re-wet once the mixture is prepared. This will cause the set grout to be weak. It may also cause discrete holes and grains on grout surface, and surface discoloration and variation which will be more noticeable with darker grouting colours.
- Test the grout on a spare tile before grouting against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.
- Be particular about tiles with soft surface which can be scratched during grouting.
- Minimum 7 days of set time should be waited to fill in the pools after grouting.
- For VitrA Fix RUSTIK 3 - 20 mm, pot life and waiting time for initial cleaning are 1 hour and 10-15 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and fixing onto high porosity substrates). On this account, wetness of the grouting material should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when grouting impervious or sealed tiles.
- Minimum application thickness of the grouting should be at least 3 mm. Thinner grouts would be weak and easily scraped.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided

considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Cementitious grouting materials are not appropriate for expansion joints.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- Cementitious grouting materials have improved water repellency but not absolutely impermeable. Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (VitrA Fix HYDROSTOP, VitrA Fix PROOF S of VitrA Fix PROOF).
- Common cleaning materials like bleach, lime remover and etc. may cause surface discoloration and variation. Use VitrA Fix JOINT CLEANER.

SPECIAL CONDITIONS

- To improve the technical performance of the grouting material (improved resistance and flexibility and water repellency features), it is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX).

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.

$$\text{Grout Coverage (kg/m}^2\text{)} = \frac{(\text{A}+\text{B})\times\text{C}\times\text{D}\times\text{E}}{(\text{A}\times\text{B})}$$

- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,4)

PACKAGING

Kraft sacks of 20 kg (60 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

VitrA Fix EPOXY



Epoxy resin based grouting material



DESCRIPTION

Epoxy resin based two component high performance grouting material with improved chemical and mechanical resistance for joints 2-12 mm of any tile format. It has a minimized shrinkage value, thus crack free. Dirt-free, hygienic and easy to clean.

AREAS OF USE

Suitable for use in internal and external areas, vertical and horizontal grouting applications. Ideal for pools, terraces and wet areas with its impermeable and crackless form. Particularly suitable for areas requiring high chemical (to alkalies and acids) and mechanical resistance like industrial facilities, food factories, professional kitchens, laundries, laboratories, olympic pools, water tanks and vehicle service stations. It is recommended for hospital as it provides hygiene.

FEATURES

Material content:
 - component (A) : Epoxy resin
 - component (B) : Hardener
 Type : Paste (component A) + Liquid (component B)
 Color : Gri / white / beige / anthracite
 Density : 1,6 gr/cm³

APPLICATION PROPERTIES

Pot life : 50 minutes at +20 °C
 40 minutes at +30 °C
 Application temperature: +12 °C - +30 °C
 Joint width : 2-12 mm
 Grouting time : as instructed on the adhesive technical sheet.
 Set time : minimum 24 hours (for light pedestrian traffic)
 Final set time : 7 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Water absorption (after 30 minutes) : < 0,1 gr
 Water absorption (after 240 minutes) : < 0,1 gr
 Resistance to moisture : excellent
 Resistance to alkalies : excellent
 Resistance to acids : excellent
 Temperature resistance : -20 °C - +80 °C
 Bending strength : ≥ 30 MPa (N/mm²)
 Bending strength (freeze-thaw cycle) : ≥ 30 MPa (N/mm²)
 Compressive strength : ≥ 65 MPa (N/mm²)
 Compressive strength (freeze-thaw cycle) : ≥ 65 MPa (N/mm²)
 Abrasion strength : < 250 mm³
 Shrinkage : < 2 mm/m

REFERENCE STANDARD

TS EN 13888 / RG class.

SURFACE PREPARATION

- Grouting should start after the adhesive has set and dried.
- The joints and tile surface must be clean in order to ensure the grouting material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that the tiles are firm.
- The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.

MIXING

- The ideal ambient temperature for application is +20 °C. At lower temperatures warming, where at higher temperatures cooling the components to +20 °C is recommended for a convenient application.
- Gradually add the entire hardener component (component B) to the epoxy resin component (component A), and mix to a smooth and homogenous

- Reliable and hygienic for industrial facilities, food factories and olympic pools,
- Particularly suitable for areas requiring high mechanical and chemical resistance,
- High flexibility and resistance to frost, moisture and thermal shocks,
- Resistant to UV and outdoor weather conditions,
- Prevents bacteria and mould propagation, and easy to clean,
- Environmentally friendly due to water based formula.



VitrA Fix EPOXY

paste with a uniform colour for at least 3 minutes. It is recommended to use a low cycled electrical drill-mixer for mixing.

- The paste should be in a consistence such that it does not flow when handled with a trowel.
- Do not add more or less of the components than specified to get a fluid form or extend pot life (working time). Do not add water.

APPLICATION CONDITIONS

- The ideal ambient temperature for application is +20 °C. The grouting material should be applied at an ambient temperature range of +12 °C - +30 °C.
- Application surface temperature must be above +12 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Fill the grouting material in the joints completely and thoroughly with a hard rubber float or steel trowel leaving no voids. Work on a small area at a time. Epoxy grouting material should not be spread on tiles as cement-based products. Once the epoxy hardens, it will be very difficult to remove the material residues on tiles.
- Remove the excess grouting material immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens. If moved parallel to the tiles the grouting material within the joints may be dragged from the joints causing a deformed grout surface. Always follow the same direction across tiles when applying the grouting material. If the joints are wide, particular care is required.
- Time for cleaning the excess grouting material from tile surface is when the grout has started to dry. Time is 40 minutes at +20 °C, but duration may vary due to ambient temperature (longer in lower temperatures, shorter at higher temperatures). Exact time to start cleaning may be determined by touching the grouting material. When the material slightly gets on the finger, cleaning phase should start immediately.
- Temperature of the cleaning water should be +30 °C - +40 °C. Add **VitrA Fix NET** to the cleaning water at the ratio of 1:5 (by volume) for a easier cleaning. Use cleaning pads, particularly designed for epoxy grouting works. As the first phase of cleaning process, select a thick textured pad for rough cleaning. Move the pad in circular motion across the tiles in order not to cause any deformations. In the second phase of cleaning process, select a thin textured pad for smooth cleaning and apply as described above. Continue wiping the tiles until all residues are moved. Final cleaning and rinsing should be done with a damp sponge. If any stickiness is felt when touched on the tile surface, repeat final cleaning. The tiles should be wiped and polished with a clean and dry cloth in circular motion. Use only clean and non-chalky water to dampen the pads and sponge.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened package, do not use the product.
- Do not add any water or solvents into the components or mixture.
- When preparing the product in small quantities, conform to the mixing rate of the components.
- Test the grout on a spare tile before grouting against surface staining. Surface staining is possible for porous textured, matt or glazed tiles. Tiles with surfaces having shallow depressions would fill with grout. It is recommended to treat tiles with an appropriate protective sealer for a convenient application.
- Be particular about tiles with soft surface which can be scratched during grouting.
- Minimum 7 days of set time should be waited to fill in the pools after grouting.
- For **VitrA Fix EPOXY**, pot life and waiting time for initial cleaning are 50 minutes and 40 minutes at +20 °C, respectively. Durations will be shortened for applications at higher ambient temperatures. On this account, wetness of the grouting material should be tested by touching in case of early setting. Durations may extend in lower temperatures.
- Minimum application thickness of the grouting should be at least 3 mm. It would be difficult to fill in thinner joints completely, that would cause the grout to be weak.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or

changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics. Epoxy grouting material is not appropriate for expansion joints.

- Grouted surfaces must be protected for at least 24 hours from direct sun light, frost and rain.
- Epoxy grouting material is impermeable, but is not produced for water-proofing purposes. Before tiling and grouting wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF-S** or **VitrA Fix PROOF**).
- Common cleaning materials like bleach, lime remover and etc. may cause surface discolouration and variation. Use **VitrA Fix JOINT CLEANER**.
- Surface discolouration and variation is a possible natural reaction of epoxy resin based grouting material when grout is directly exposed to outdoor conditions and UV lights or strong acids contact for long durations. This situation will cause no weakness in technical performance.
- Unglazed tiles are recommended to be grouted with same coloured epoxy grouting materials.
- Terracotta tiles are not recommended with epoxy grouting materials as cleaning will be problematic.

SPECIAL CONDITIONS

- Acid or alkali effects on the floor must be checked prior to the applications on industrial floors. Effect level caused by common chemicals should be checked on the chemical resistance table. Please refer to the technical service particularly before any application in milk or dairy product facilities.

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the tile sizes, tile thickness and joint width. The formula below is theoretical; 10% possible waste arising during application should be added to the calculated coverage.

Grout Coverage (kg/m²) = (A+B)xCxDxE / (AxB)

- A: Tile length (mm)
- B: Tile width (mm)
- C: Tile thickness (mm)
- D: Joint width (mm)
- E: Coefficient of density (1,4)

PACKAGING

Metal cans of 5 kg (96 cans / 480 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 12 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.
- When stored at temperatures below +12 °C, the components may crystallize making the application difficult. In this case, keep the product at temperatures 20 - 23 °C for at least 2 days. This will help crystallization to dissolve and the product to regain the homogenous form.

HEALTH AND SAFETY

- Irritating to eyes and skin due to epoxy resin and amine content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled, vaporized material is harmful. Mask should be used if necessary, and application area should be ventilated.
- Keep the product out of the reach of children.

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VitrA Fix EPOXY CHEMICAL RESISTANCE TABLE

+ Resistant; no deformation in case of permanent contact.

(+) Partially resistant; incase of temporary contact.

-- Not resistant. Deformation and color segregation occur on the grouting material after short time of contact, i.e. within 24 hours

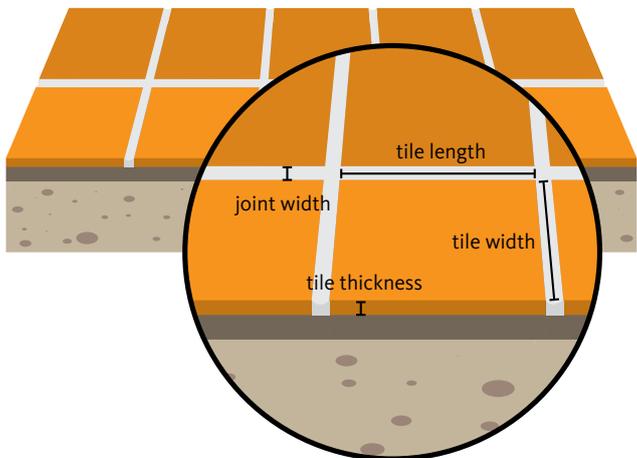
Chemical Agents	Resistance	Chemical Agents	Resistance	Chemical Agents	Resistance
Acetaldehyde	(+)	Sodium sulphate solution, ges.	+	Cyclohexanon	(+)
Acetone	(+)	Sodium sulphate solution 20%	+	Disinfectant cleaner AP3	+
Ethanol (spirit)	+	Sudcostik, conc.	+	Di (2-ethylhexyl) phthalate	+
Ether	(+)	n-Hexane	+	Diesel oil	+
Ethyl Acetate	(+)	Fatty acid	+	Dibutylphthalate	+
Ethyldiglycol	+	Oxalic acid 10%	+	Diglycol	+
Ethylenechloride	(+)	Paraphine oil	+	Dimethylformamide	-
Multipurpose cleaner	+	Perchloroethylene	+	Dimethylphthalate	+
Aluminum chloride solution 10%	+	Petrol ether	+	Dimethylglycolphthalate	+
Aluminum sulphate solution 40%	+	Vegetable oil	+	Diocetylphthalate	+
Formic acid 3%	+	Phenol 1% (in water)	+	Dioxan	+
Formic acid 5%	+	Phenol 20% (in water)	-	Ferro sulphate solution 30%	+
Formic acid 10%	(+)	Phosphoric acid 30%	+	Ice acid	-
Ammonium carbonate solution 10%	+	Prophylalcohol	+	Acetic acid 5%	+
Ammonium carbonate solution 50%	+	1,2-Prodiolenicol	+	Acetic acid 10%	+
Ammonia solution	+	Nitric acid 10%	+	Fatty acid at 50 °C	(+)
Ammonium chloride	+	Nitric acid 20%	+	Formalin	+
Ammonium nitrate solution 50%	+	Nitric acid 50%	-	Furfural	+
Ammonium sulphate solution 50%	+	Hydrochloric acid, conc.	+	Glycerin	+
Amilacetate	(+)	Hygienic cleaner	+	Glycol	+
Bariumchloride solution 40%	+	Sulphuric acid 30%	+	Light and heavy diesel fuel	+
Bariumchloride solution 10%	+	Sulphuric acid 50%	+	Hydraulic lubricant	+
Battery acid	+	Sulphuric acid 70%	+	Isopropylacetate	(+)
Benzaldehyde	(+)	Sulphuric acid 98%	-	Isopropylalcohol	+
Gasoline	+	Silver nitrate solution 1%	+	Potash ash water, conc.	+
Benzol	(+)	Silicone oil	+	Potassium carbonate solution 20%	+
Water which is aggressive for concrete (as per DIN 4030)	+	Shuttle oil	+	Potassium chromate, ges.	+
Beer	+	Spirit	+	Potassiumpermanganate solution 5%	+
Boron acid 3%	+	Terepentine oil	+	Potassiumpersulphate solution 50%	+
Butyl acetate	(+)	Test gasoline	+	Cresol 60% (in water)	-
Butyl alcohol	+	Tetrachlorcarbon	(+)	Coppersulphate 15%	+
Butyl diglycol	+	Tetrahydrofuran	-	Lemonade	+
Butyl glycol	+	Toluol	(+)	Magnesiumchloride solution 35%	+
Calcium chloride solution 40%	+	Triethanolamine	+	Methanol	+
Calcium chloride solution 20%	+	1,1,1 Trichlorethane	+	Methyl ethyl cetone	(+)
Calcium hydroxide solution 20%	+	Trichlorethylene	+	Methylenechloride	-
Calcium nitrate solution 50%	+	Trisobutylene	+	Methylglycolacetate	(+)
Chlorinated javel water %15	+	Oxygen super oxide 30%	+	Methylisobutylcetone	(+)
Chlorinated water	+	Sarao	+	Lactic acid 5%	+
Chloroform	-	Tartaric acid 10%	+	Lactic acid 10%	+
Cola	+	Xilol	(+)	Lactic acid 20%	+
Chrome acid 10%	+	Zincchloride solution 10%	+	Engine lubricant	+
Water containing CO ₂	+	Zinctetrachloride solution 20%	+	Sodium acetate solution %20	+
Cyclohexane	+	Citric acid 20%	+	Sodium carbonate solution %18	+
Sugar solution %10	+	Sodium chloride solution, ges.	+		

COLOR CHARTS FOR GROUTING MATERIALS

PRODUCTS	1-6 mm	FLEX 0-3 mm	FLEX 3-10 mm	POOL G 2-10 mm	RUSTIK 3-20 mm	EPOXY
WHITE	○	○	○	○	○	○
JASMIN	○	○	○			
IVORY	○	○	○			
BEIGE	○	○	○			○
BAHAMA BEIGE	○	○	○			
SAHARA BEIGE	○	○	○			
PETRA BEIGE	○	○	○			
EFES BEIGE	○	○	○			
CARAMEL	○	○	○			
PRESTIGE YELLOW	○	○	○			
GREEN	○	○	○			
BLUE	○	○	○			
PRESTIGE BLUE	○	○	○			
LIGHT GREY	○	○	○			
GREY	○	○	○	○	○	○
ANTHRACITE	○	○	○			○
BLACK	○	○	○			
PRESTIGE BLACK	○	○	○			
BROWN	○	○	○			
MOCHA	○	○	○			
PINK	○	○	○			
COTTO	○	○	○			
PRESTIGE RED	○	○	○			
PRESTIGE GREEN	○	○	○			

GROUTING MATERIALS

GROUTING MATERIAL CONSUMPTION TABLE



Grouting Material Consumption (kg/m²)

$$= \frac{(A + B) \times C \times D \times E}{(A \times B)}$$

A : Tile length (mm)	E : Density
B : Tile width (mm)	- 1-6 mm : 1,4
C : Tile thickness (mm)	- FLEX 0-3 mm : 1,4
D : Joint width (mm)	- FLEX 3-10 mm : 1,4
	- POOL G 2-10 mm : 1,3
	- RUSTIK 3-20 mm : 1,5
	- EPOXY : 1,6

* Calculation formula is theoretical. Please consider 10% more of calculated quantity because of the application casualities.

VitrA Fix FILM



Primer



DESCRIPTION

Synthetic resin based primer which balances water absorption on surfaces. Prepares porous surfaces to the application of cement based mortars. It regulates the porosity of surfaces prior to the application of tile adhesives, leveling compounds and plasters reinforcing cohesion of the substrate's surface and improving the adhesion of mortars. It is ready to use.

AREAS OF USE

Suitable for use in internal and external areas, vertical and horizontal priming applications. Ideal for priming onto concrete, cementitious screeds and plasters, gypsum and wooden based substrates as a surface treatment prior to the application of a cementitious product.

SURFACE PREPARATION

■ The substrate must be clean in order to ensure the primer bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. ■ Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. ■ Cracks on the substrate should be repaired prior to priming.

APPLICATION

■ VitrA Fix FILM is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out. ■ It is applied directly on the substrate with a sponge, roller or brush sufficiently, making sure that the surface is fully covered. For very porous surfaces a second coat may be required. ■ Wait for primer to dry well before the following application. Drying time may extend at low temperatures and with high humidity. ■ Due to difficulty of cleaning, avoid splashes of product during application.

PRECAUTIONS

■ Do not add any water or other component. ■ Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling. ■ Application surface temperature must be above +5 °C. The surface should have no risk of freezing. ■ Do not apply onto non-porous or hydrophobic surfaces. ■ Do not apply onto wet surfaces or substrates with high humidity. ■ VitrA Fix FILM reduces surface porosity. It cannot be used for water proofing purposes. ■ Do not leave exposed to direct sun light or water effect after it dries. In these conditions, continue with the following application immediately.

COVERAGE

The approximate coverage amount (lt/m²) may vary depending on the porosity of the substrate: Coverage for one coat: 0,100-0,200 lt/m²

STORAGE AND SHELL LIFE

■ When stored unopened in a cool, dry place at temperatures above 4 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging. ■ The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage. ■ When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

■ In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water. ■ Wear suitable protective clothing, gloves and eyes/face protection. ■ Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

FEATURES

Material content: Acrylic polymers and additives, water.
 Type : Liquid
 Color : Orange
 Density : 1,01 gr/cm³

APPLICATION PROPERTIES

Application temperature: +5 °C - +35 °C
 Drying time : minimum 3 hours (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to moisture : good
 Resistance to alkalis and acids : moderate
 Resistance to thermal shocks : excellent
 Flexibility : good

PACKAGING

Plastic cans of 5 lt (84 cans / 420 kg on a pallet)

- Regulates the porosity of the cement and gypsum based surfaces, an improves the bonding performance of cement based adhesives and leveling mortars,
- Solvent-free and odorless. Safe to use in closed areas,
- Prevents dust formation on surfaces.



VitrA Fix FILM PLUS



High performance primer



DESCRIPTION

Synthetic resin based, high performance adhesion primer with mineral fillings. Prior to the application of tile adhesives, leveling compounds and plasters on low porosity or nonporous surfaces, it reinforces cohesion of the substrate's surface and improves the adhesion of mortars. It reduces and regulates water absorption level on porous surfaces prior to the application of cement based mortars for improved bonding. It is ready to use.

AREAS OF USE

Suitable for use in internal and external areas, vertical and horizontal priming applications. Ideal for priming onto porous or nonporous surfaces such as concrete, cementitious screeds and plasters, gypsum and wooden based substrates, existing tile and marble surfaces as a surface treatment prior to the application of a cementitious product. Particularly for use as a primer prior to tiling onto existing tiles.

SURFACE PREPARATION

■ The substrate must be clean in order to ensure the primer bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. ■ Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet. ■ Cracks on the substrate should be repaired prior to priming.

APPLICATION

■ VitrA Fix FILM PLUS is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out. ■ It is applied directly on the substrate with a roller or brush sufficiently, making sure that the surface is fully covered. ■ Wait for primer to dry well before the following application. Drying time may extend at low temperatures and with high humidity. ■ Due to difficulty of cleaning, avoid splashes of product during application.

PRECAUTIONS

■ Do not add any water or other component. ■ Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before tiling. ■ Application surface temperature must be above +5 °C. The surface should have no risk of freezing. ■ Do not apply onto hydrophobic surfaces. ■ Do not apply onto wet surfaces or substrates with high humidity. ■ VitrA Fix FILM PLUS cannot be used for water proofing purposes. ■ Do not leave exposed to direct sun light or water effect after it dries. In these conditions, continue with the following application immediately.

COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the porosity of the substrate: Coverage for one coat: 0,300-0,400 kg/m²

STORAGE AND SHELL LIFE

■ When stored unopened in a cool, dry place at temperatures above 4 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging. ■ The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage. ■ When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

■ In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water. ■ Wear suitable protective clothing, gloves and eyes/face protection. ■ Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.

FEATURES

Material content: Acrylic polymers, additives, mineral fillings and water.
Type : Liquid
Color : Blue
Density : 1,4 gr/cm³

APPLICATION PROPERTIES

Application temperature: +5 °C - +35 °C
Drying time : minimum 6 hours (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to moisture : good
Resistance to alkalis and acids : moderate
Resistance to thermal shocks : excellent
Flexibility : good

PACKAGING

Plastic cans of 10 kg (48 cans / 480 kg on a pallet)

- Regulates the porosity of the cement and gypsum based surfaces,
- Improves the bonding performance of cement based mortars on low-porosity or non-porous surfaces such as concrete, existing tiles,
- Particularly for use as a primer prior to tiling onto existing tiles,
- Solvent-free and odorless. Safe to use in closed areas,
- Prevents dust formation on surfaces.



PERFORMANCE IMPROVING PRIMER and ADDITIVES

VitrA Fix LATEX



High performance additive



DESCRIPTION

High performance, synthetic resin based additive for cement based mortars and adhesives. It improves the mechanical strength, water repellency, flexibility and adhesion performance of cement based adhesives, grouting materials, plasters and mortars and etc. It is a non-toxic and non-flammable product for professional use.

AREAS OF USE

It is added into cement, gypsum, cement-gypsum based adhesives, grouting materials and mortars for use in tiling, plastering and screed applications on industrial and public areas exposed to heavy loads or pedestrian traffic, in pools and wet areas, outdoor areas and external facades, under heated floors.

FEATURES

Material content: Emulsion containing synthetic polymers additives.
 Type : Liquid
 Color : White
 Ph : 8
 Density : 1,05 gr/cm³

APPLICATION PROPERTIES

Application temperature : +5 °C - +35 °C
 Additive mixing ratio : varies according to scope of usage

TECHNICAL PERFORMANCE

Resistance to moisture : excellent
 Resistance to alkalis : excellent
 Resistance to thermal shocks: excellent
 Flexibility : excellent

IMPACT OF VitrA Fix LATEX ON THE MORTAR

- Improves adhesion performance of cement based mortars.
- Improves corrosion and impact resistance.
- Improves thermal resistance, and prevents crack forming under severe freeze-thaw conditions.
- When added into cementitious tile adhesives, improves tensile strength, flexibility and resistance to thermal shocks for the adhesive.
- When added into cementitious grouting material, improves water repellency, abrasion and bending strength for the grouts.

APPLICATION

- VitrA Fix LATEX is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out.
- The additive mixing into mortar should be carried at an ambient temperature range of +5 °C - +35 °C.
- VitrA Fix LATEX is added into the mortar in the equivalent amount which is reduced from the regular mixing water amount for the relevant mortar. It is recommended to add VitrA Fix LATEX into the mixing water in the ratio 1:3 as minimum (as for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX).
- For fixing onto impervious surfaces like existing tiles the surface may be primed with the mixture prepared by mixing VitrA Fix FLEX PORSELEN and VitrA Fix LATEX in the ratio 1:1 (in equal amounts) is recommended. Two coats of mixture is applied on the surface for priming evenly. Consumption is 0,4 kg/m² in total (0,2 kg/m² of VitrA Fix FLEX PORSELEN and 0,2 kg/m² of VitrA Fix LATEX).
- When high performance plastering or surface repairing is required such in pool applications, it is recommended to add VitrA Fix LATEX into the mixing water of VitrA Fix RM 27 surface smoothing and restoration plaster in the ratio 1:3 (as for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of VitrA Fix LATEX).
- Due to difficulty of cleaning, avoid splashes of product during application.

- Improves final performance of cementitious mortars and mixtures,
- Improves corrosion and impact resistance,
- Provides and improves elasticity of mortars,
- Improves water repellency for cementitious grouting materials.



+5°C / +35°C

VitrA Fix LATEX

PRECAUTIONS

- Do not add any water or other component.
- Do not apply onto metal, rubber, PVC, linoleum surfaces.
- Do not add into self leveling compounds.
- There might be early formation of films on carded surfaces, if product is used in a cement-based adhesive in hot and dry ambient. In case a film is formed on the surface, the adhesive should be removed from the surface and a new mixture should be reapplied.
- In pool applications; when added into mortars and plasters, leave plaster and screed for at least 6 weeks to fully cure before tiling.
- When added into adhesive, delays the curing of the adhesive particularly in cold ambient. Consult technical service for instructions.
- When added into plaster, the plaster will form a stickier consistency. Thus, care should be given during application.

COVERAGE

The approximate coverage amount (lt) may vary depending on the scope of application. For average consumption values please refer to the application section.

PACKAGING

Plastic cans of 5 lt (84 cans / 420 kg on a pallet)
Plastic cans of 20 lt (24 cans / 480 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 4 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix NET

Acid-based, liquid tile cleaning material
(concentrated acid)



DESCRIPTION

Acid-based and concentrated liquid, which is used to remove cement and lime based mortar stains and residues (adhesives, grouting materials, plasters and etc.) from tile surfaces.

AREAS OF USE

Suitable for use on any format of tiles with acid resistant surfaces. It is convenient to use for removing wax residues on waxed tiles.

FEATURES

Type : Liquid
Color : Transparent
Ph : < 0,3
Density : 1,03 gr/cm³
Donma noktası: 0 °C

APPLICATION PROPERTIES

Application temperature: +0 °C - +40 °C

SURFACE PREPARATION

- Prior to cleaning everything that might be affected from contact of acid either should be removed or safely covered allowing no air contact, such as marble and natural stone coverings, aluminum, inox or metal surfaces.
- Prior to application the surface should be wetted with a sponge.
- Ensure that substrate is sound and stable.
- Avoid application on extremely hot or dry ambient conditions.

APPLICATION

- **Vitra Fix NET** is supplied as a concentrated liquid. It should be pre-diluted with water due to the intensity of the stains and residues. For a standard procedure cleaning, pre-dilute one part **Vitra Fix NET** with 5 parts of water. For severe stains, use pre-diluted in the ratios gradually reduced to 1 part of **Vitra Fix NET** to 1 part of water, in case un-diluted. However, effect of the material should be pre-tested on a spare part of the cleaning surface prior to cleaning.
- Apply pre-diluted solution directly on the surface with a sponge sufficiently; making sure that the surface is fully covered.
- Wait for 5 minutes to let the solution affect and dissolve the stain and residue well. Then, rub all visible stains and residues with an abrasive sponge or brush, with care in order not to deform the tile surface.
- After rubbing, clean the solution from the surface with a sponge or by using industrial vacuum cleaner. Do not let the solution to dry on the surface, and rinse the surface thoroughly with water several times. The surface, then, should be cleaned and polished with a clean and dry cloth in circular motion.
- **Vitra Fix NET** is suitable for use with industrial cleaners. The area should be divided into small parts of 3-4 m² for cleaning. After applying the solution on the surface, it should be waited for 2-3 minutes for the solution to affect.
- Due to hazardous effect of solution, ventilate the area and avoid splashes of product during application.

PRECAUTIONS

- Application surface temperature must be above +0 °C. The surface should have no risk of freezing.
- Material is not suitable for acid sensitive surfaces, inox, aluminum and metals, polished marbles or limestone and glazed tiles. It would cause fade-out and colour deterioration, corrosion and surface deformation.
- A pre-test should be performed in a spare part of the surface to verify that the surface can be cleaned and is resistant to abrasion and acidic effect.
- It should not contact with cementitious grouting materials for long. Undiluted solution contact may cause colour deteriorations and deformations in dark coloured grouts.
- Vaporized solution has corrosive effect and this will cause chromium plating and metal parts and surfaces to corrode and fade. Prior to application, remove or cover all parts and surfaces that might be affected safely allowing no air contact.

- Ideal for cleaning cement and lime based mortar stains and residues after tiling,
- Easy to apply.



+0 °C / +40 °C

VitrA Fix NET

COVERAGE

The approximate coverage amount (lt/m²) may vary depending on the format of stain or residue: 12-16 m²/lt.

PACKAGING

Plastic bottles of 1 lt (10 bottles / 10 lt in a box)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 0 °C and 40 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damp or submerged warehouses. Do not leave exposed to direct sunlight.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- S1/2 : KEEP OUT OF THE REACH OF CHILDREN UNDER PROTECTIVE STORAGE.
- R20/21 : Harmful by inhalation and skin contact.
- R36/37/38: Irritating to eyes, respiratory system and skin.
- R42/43 : May cause sensitization by inhalation and by skin contact.
- S24/S25 : Avoid contact with skin and eyes.
- S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28 : After contact with skin, wash immediately with plenty of water.
- S38/39 : In case of insufficient ventilation, wear suitable respiratory equipment.
- S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S46 : If swallowed, seek medical advice immediately and show the label informations.



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Vitra Fix JOINT CLEANER



Acid based liquid joint cleanin material



DESCRIPTION

Cleaner particularly designed for cleaning and removing residues and dirt on grouting materials efficiently and rapidly, without damaging tiles. It also cleans grouting material residues after tiling works.

AREAS OF USE

It can be conveniently used in bathrooms, kitchens and family rooms. It should only be used on natural stone, porcelain, ceramic or fire clay tiles. It will remove surface brightness of terrazzo, granite, marble and mosaics tiles. It does not cause any corrosion on inox, metal or plastic surfaces.

FEATURES

Type : Liquid
Color : Transparent
Ph : 1,5
Density : 1,09 gr/cm³
Freezing temperature: -6 °C

APPLICATION

■ Apply to small areas of 3 to 4 tiles located successively. ■ **Vitra Fix JOINT CLEANER** is supplied as a ready-to-use liquid in a sprayer. It should be applied directly on the grout surfaces. However, effect of the material should be pre-tested on a spare part of the cleaning surface prior to cleaning. ■ Wait for at most 3 minutes to let the solution affect and dissolve the stain and residue well. Then, rub all visible stains and residues with a wetted abrasive sponge, with care in order not to deform the tile surface. ■ After rubbing, clean the solution from the surface with a sponge. Do not let the solution to dry on the surface, and rinse the surface thoroughly with water several times. The surface, then, should be cleaned and polished with a clean and dry cloth in circular motion. ■ Ventilate the area and avoid splashes of product during application.

STORAGE AND SHELL LIFE

■ When stored unopened in a cool, dry place at temperatures between 0 °C and 40 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging. ■ The products should not be stored in damped or submerged warehouses. Do not leave exposed to direct sunlight. ■ When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

S1/2 : KEEP OUT OF THE REACH OF CHILDREN UNDER PROTECTIVE STORAGE.
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S24/S25 : Avoid contact with skin and eyes.
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S28 : After contact with skin, wash immediately with plenty of water.
S38/39 : In case of insufficient ventilation, wear suitable respiratory equipment.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46 : If swallowed, seek medical advice immediately and show the label informations.



COVERAGE

The approximate coverage amount (kg/m²) may vary depending on the format of stain or residue: 50 linear meters/0,5 lt.

PACKAGING

Plastic sprayer bottles of 0,5 lt

- Ideal for cleaning dirt and stains on grout surfaces,
- Easy to apply.



SURFACE CLEANING and TREATMENT MATERIALS

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Vitra Fix SURFACE PROTECTION AGENT

Surface protection agent for marble, granite, porcelain tiles.



DESCRIPTION

Sealer to protect tile surfaces against liquids, staining and dirt. It forms a brilliant, impermeable and elastic film on the surface. It is transparent and does not change the original appearance of surfaces. It also provides protection against wears and tears attributable to corrosive effects of pedestrian traffic. The sealed surface is easily cleaned with universal cleaners or pressurized water.

AREAS OF USE

It can be conveniently used on marbles, granite, terrazzo and porcelain tiles.

SURFACE PREPARATION

- Prior to sealing everything that might be affected from contact of material either should be removed or safely covered.
- Surface should be cleaned and dry.
- Ensure that substrate is sound and stable.
- Avoid application on extremely hot or humid ambient conditions.

APPLICATION

- Vitra Fix SURFACE PROTECTION AGENT is supplied as a ready-to-use liquid. Apply it directly on the surface by using a brush.
- Wait for at least 2 hours to let the solution penetrate into the surface and dry. Then, rub the surface using a cotton cloth or mop
- Avoid splashes of product during application.

PRECAUTIONS

- Do not pre-dilute with water.
- The product is not corrosive but a pre-test should be performed in a spare part of the surface to verify that the surface is appropriate for sealing.
- If any stains are left on the surface, stained area should be rubbed with an abrasive sponge. Then, use a cotton cloth or mop to brighten the surface.

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 0 °C and 40 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. Do not leave exposed to direct sunlight.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- S1/2 : KEEP OUT OF THE REACH OF CHILDREN UNDER PROTECTIVE STORAGE.
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 S38/39 : In case of insufficient ventilation, wear suitable respiratory equipment.
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S46 : If swallowed, seek medical advice immediately and show the label informations.



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FEATURES

Material content: Synthetic resin and aromatic solvents
 Type : Liquid
 Color : Transparent
 Density : 1 gr/cm³

APPLICATION PROPERTIES

Application temperature: +0 °C - +40 °C

COVERAGE

The approximate coverage amount (lt/m²) may vary depending on surface roughness and porosity: 10-12 m²/lt.

PACKAGING

Metal bottles of 1 lt

- Protects marble, granite and porcelain tile surfaces against staining,
- Easy to apply.





Vitra Fix STAIN REMOVER



Stain remover for ceramic and porcelain tiles, marbles and natural stones and granite.



DESCRIPTION

Alkali based stain removing agent, which is used to remove stains on coating materials. It efficiently removes stains of coffee, wine, juices, oil and etc. from surfaces.

AREAS OF USE

It is efficient to remove stains on marbles, granite, terrazzo, ceramic and porcelain tiles.

SURFACE PREPARATION

- Prior to cleaning, the application surface should be washed with water thoroughly
- Ensure that substrate is sound and stable.
- Avoid application on extremely hot or dry ambient conditions.

APPLICATION

- **Vitra Fix STAIN REMOVER** is supplied as a ready-to-use liquid. Pour it directly on the surface with sufficient amount to cover the stain.
- Wait for 3-4 minutes to let the solution penetrate into the stain and dissolve it. Then, rub the stained area using a sponge.
- If stain is not removed yet, again pour material on the stain and wait for 30 minutes and then rub again. Re-do this procedure since the stain is removed satisfactorily.
- Clean the solution from the surface with a sponge. Do not let the solution to dry on the surface, and rinse the surface thoroughly with water several times. The surface, then, should be cleaned and polished with a clean and dry cloth in circular motion.
- Avoid splashes of product during application.

PRECAUTIONS

- Do not pre-dilute with water.
- The product is not corrosive but a pre-test should be performed in a spare part of the surface to verify that the surface is appropriate for sealing.
- If any stains are left on the surface, stained area should be rubbed with an abrasive sponge. Then, use a cotton cloth or mop to brighten the surface.

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 0 °C and 40 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. Do not leave exposed to direct sunlight.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

S1/2: KEEP OUT OF THE REACH OF CHILDREN UNDER PROTECTIVE STORAGE. **R20/21:** Harmful by inhalation and skin contact. **R36/37/38:** Irritating to eyes, respiratory system and skin. **R42/43:** May cause sensitization by inhalation and by skin contact. **S24/S25:** Avoid contact with skin and eyes. **S26:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. **S28:** After contact with skin, wash immediately with plenty of water. **S38/39:** In case of insufficient ventilation, wear suitable respiratory equipment. **S45:** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). **S46:** If swallowed, seek medical advice immediately and show the label informations.



Wash Corrosive Irritant / Do not breath Attention

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FEATURES

Type : Liquid
Color : Transparent
Ph : 12
Density : 0,9 gr/cm³
Freezing temperature: -6 °C

APPLICATION PROPERTIES

Application temperature: +0 °C - +40 °C

COVERAGE

The approximate coverage amount (lt/m²) may vary depending on the intensity of stain: 8-10 m²/lt.

PACKAGING

Plastic bottles of 1 lt.

- Particularly suitable for removing the stains on coatings,
- Easy to apply.



PERFORMANCE IMPROVING PRIMER and ADDITIVES

VitrA Fix HYDROSIL

APPLICATION

- VitrA Fix HYDROSIL is applied over the surface using a stiff brush or a paint roller. It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application and the surface is fully covered.
- 2 coats of application is recommended. The second coat should be applied as soon as the first coat has dried (reached initial set of 30 minutes). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).

PRECAUTIONS

- VitrA Fix HYDROSIL is a waterproofing coating used in structures subject to water effect only from positive side. Do not apply on surfaces exposed to permanent water pressure.
- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add any water or other component.
- Do not apply onto hydrophobic surfaces.
- Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before water proofing.
- Do not apply onto surface with high humidity.
- Drying time for VitrA Fix HYDROSIL will be shortened due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates. It may also extend in lower temperatures and/or high humidity conditions.
- Coats of water proofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have weak points possibly causing leakage.
- It has flammable content; do not approach with fire.
- Application tools should be cleaned using kerosene and turpentine after application.

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface: Coverage for one coat: 0,200-0,400 kg/m²

PACKAGING

- Plastic cans of 5 kg (84 cans / 420 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 5-30 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. Pallets should not be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.

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VitrA Fix HYDROSTOP



Ready to use, elastic, acrylic dispersion based water proofing material



DESCRIPTION

Single component, ready to use, acrylic emulsion based water proofing material. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

Suitable for use in internal, vertical and horizontal water proofing applications. Ideal onto private and public wet areas (bathroom, shower, WC and etc.) and kitchens, balconies. Not suitable for wide terraces, pools and areas exposed to permanent water pressure.

FEATURES

Material content: Acrylic polymers, hydrophobic additives, mineral fillings and water.

Type : Liquid
Color : Green
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : ready to use.
Application temperature : +5 °C - +30 °C
Application thickness : 1,5-2 mm
Drying time (initial set) : minimum 30 minutes (23 °C, 50% relative humidity)
Set time : minimum 30 minutes (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Flexibility : excellent
Resistance to humidity : excellent
Resistance to thermal shocks : -30 °C - +70 °C
Resistance to aging with heat : excellent
Resistance to alkalies and acids: moderate

APPLICATION SURFACES

Suitable for use on cement and gypsum based screeds and plasters, concrete substrates and existing tiles.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.
- VitrA Fix HYDROSTOP is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothened with either VitrA Fix RM 20 or VitrA Fix S 30.

MIXING

- VitrA Fix HYDROSTOP is supplied ready to use. However, it should be shaken to ensure that the liquid is homogenous prior to pouring out.
- Never add any additives (water, latex, etc.) into the ready-mixed liquid.

APPLICATION CONDITION

- The material should be applied at an ambient temperature range of +5 °C - +30 °C .
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

- Particularly suitable for rapid water proofing on damp and wet surfaces before tiling,
- No priming for tiling,
- Suitable on existing ceramic tiles, cement and gypsum based surfaces,
- Paintable.



VitrA Fix HYDROSTOP

APPLICATION

- **VitrA Fix HYDROSTOP** is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,75 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application is recommended, ensuring a total thickness of 1,5-2 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 30 minutes). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 5 days later after water proofing material has set.

PRECAUTIONS

- **VitrA Fix HYDROSTOP** is a waterproofing coating used in structures subject to only positive water pressure. It is not suitable for water proofing against negative water pressure.
- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add any water or other component.
- Do not apply onto hydrophobic surfaces.
- **VitrA Fix HYDROSTOP** gains its water proofing feature fully in 7 days after application.
- Do not apply directly onto the metal, plastic, PVC and aerated concrete surfaces. Please consult technical service for solutions.
- Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before water proofing.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3‰ on the floor along the direction of drain.
- Drying time for **VitrA Fix HYDROSTOP** will be shortened due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates. It may also extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- **VitrA Fix HYDROSTOP** is a water proofing material to be applied prior to tiling. It should not be left open top, and must be covered with a suitable covering or coating material.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Coats of water proofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have weak points possibly causing leakage.
- Insulation details of structures on the covering (such as lighting armatures, discharge pipes, drains and faucets) should be figured out with appropriate water proofing solutions.
- Water-proofed areas must be protected for at least 24 hours from direct sun light, frost and rain.

SPECIAL CONDITIONS

- **VitrA Fix HYDROSTOP** is paintable after it sets.

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface: For 1 mm thickness of coating 1,75 kg/m²

PACKAGING

- Plastic cans of 10 kg (48 cans / 480 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 5-30 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 4 cans should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- Keep the product out of the reach of children.

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Vitra Fix PROOF HG



Water proofing material



DESCRIPTION

Single component, cement based water proofing material. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It is reliable to apply in water tanks. It is frost resistant and provides high bonding adhesion on the substrate. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal water proofing applications. Ideal onto private and public wet areas (bathroom, shower, WC and etc.) and kitchens, balconies and small terraces, pools (boutique and small). Particularly for use in small to medium extent areas other than those exposed to high water pressure. With its high performance, it is applicable on building foundations.

FEATURES

Material content: High quality cement, additives providing flexibility and hydrophoby and improved adhesion.

Type : Powder
Color : Grey
Density : 1,2 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 8,0 – 9,0 lt water / 25 kg powder
Pot life : 1 hour
Application temperature : +5 °C - +35 °C
Application thickness : 2-3 mm
Drying time (initial set) : minimum 6 hours (23 °C, 50% relative humidity)
Set time : minimum 6 hours (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Flexibility : excellent
Resistance to humidity : excellent
Resistance to thermal shocks: -30 °C - +70 °C
Resistance to aging with heat: excellent

APPLICATION SURFACES

Suitable for use on cement based screeds and plasters, and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (i.e., gypsum plasters) should be primed with **Vitra Fix FILM** before water-proofing.
- Impervious surfaces should be primed with **Vitra Fix FILM PLUS** before water-proofing.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- **Vitra Fix PROOF HG** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothed with either **Vitra Fix RM 20** or **Vitra Fix S 30**.

MIXING

- Gradually add 8,0-9,0 lt (32-36%) of clean water to 25 kg of powder, and mix to a smooth and homogenous viscous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.

- Particularly suitable for water proofing of wet areas and water tanks before tiling,
- Elastic,
- Resistance to frost, moisture and thermal shocks.



VitrA Fix PROOF HG

APPLICATION CONDITIONS

- The material should be applied at an ambient temperature range of +5 °C - +35 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- **VitrA Fix PROOF HG** is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application is recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 48 hours later after water proofing material has set.

PRECAUTIONS

- **VitrA Fix PROOF HG** is a waterproofing coating used in structures subject to only positive water pressure. It is not suitable for water proofing against negative water pressure.
- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, aerated concrete, precast-concrete, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before water proofing.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3‰ on the floor along the direction of drain.
- Drying time for **VitrA Fix PROOF HG** will be shortened due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates. It may also extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- **VitrA Fix PROOF HG** is a water proofing material to be applied prior to tiling. It should not be left open top, and must be covered with a suitable covering or coating material.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Coats of water proofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have weak points possibly causing leakage.
- If the area subject to water-proofing will be exposed to continual water pressure (such as pools or water tanks) reinforcement of the water proofing coating is recommended strictly. Reinforcement should be done with appropriate reinforcement materials (such as alkali resistant reinforcement mesh). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Insulation details of structures on the covering (such as pool lighting armatures, discharge pipes, drains and faucets) should be figured out with ap-

propriate water proofing solutions.

- Water-proofed areas must be protected for at least 24 hours from direct sun light, frost and rain.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- To improve the technical performance of **VitrA Fix PROOF HG**, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



VitrA Fix PROOF S



Two component, semi-elastic,
cement-based water proofing material



DESCRIPTION

Two component, cement based, high performance, flexible water proofing material with improved adhesion. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal water proofing applications. Ideal onto private and public wet areas (bathroom, shower, WC and etc.) and kitchens, balconies and small terraces, pools (boutique and small). Particularly for use in small to medium extent areas other than those exposed to high water pressure. With its high performance, it is applicable on building foundations.

FEATURES

Material content
- powder component (A): High quality cement, additives providing flexibility and hydrophoby and improved adhesion.
- liquid component (B) : Synthetic resin based latex liquid.
Type : Powder (component A) + liquid (component B)
Color : Grey (component A) / white (component B)
Density : 1,4 gr/cm³ (component A) / 1,0 gr/cm³ (component B)

APPLICATION PROPERTIES

Mixture rate : 25 kg (component A) + 6,25 lt (component B)
Pot life : 1 hour
Application temperature: +5 °C - +30 °C
Application thickness : 2-3 mm
Drying time (initial set) : minimum 6 hours (23 °C, 50% relative humidity)
Set time : minimum 6 hours (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Flexibility : good
Resistance to humidity : excellent
Resistance to thermal shocks: -30 °C - +70 °C
Resistance to aging with heat: excellent

APPLICATION SURFACES

Suitable for use on cement and gypsum based screeds and plasters, and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- High porosity substrates (i.e., gypsum plasters) should be primed with **VitrA Fix FILM** before water-proofing.
- Impervious surfaces should be primed with **VitrA Fix FILM PLUS** before water-proofing.
- The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.
- **VitrA Fix PROOF S** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothed with either **VitrA Fix RM 20** or **VitrA Fix S 30**.

MIXING

- Gradually add 25 kg of powder component A to 6,25 lt of liquid component B, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The paste should rest for 3 minutes prior to application and should be applied after remixing.

- Particularly suitable for water proofing of wet areas, balconies and small terraces before tiling,
- Semi-elastic,
- Resistance to frost, moisture and thermal shocks.



+5 °C / +30 °C
25 kg powder + 6,25 lt liquid
1 hour

VitrA Fix PROOF S

APPLICATION CONDITIONS

- The material should be applied at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- **VitrA Fix PROOF S** is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application is recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 48 hours later after water proofing material has set.

PRECAUTIONS

- **VitrA Fix PROOF S** is a waterproofing coating used in structures subject to only positive water pressure. It is not suitable for water proofing against negative water pressure.
- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add more or less of the components into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add water into the mixture once the mixture is prepared.
- Do not apply directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, aerated concrete, precast-concrete, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before water proofing.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Drying time for **VitrA Fix PROOF S** will be shortened due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates. It may also extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- **VitrA Fix PROOF S** is a water proofing material to be applied prior to tiling. It should not be left open top, and must be covered with a suitable covering or coating material.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Coats of water proofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have weak points possibly causing leakage.
- If the area subject to water-proofing will be exposed to continual water pressure (such as pools or water tanks) reinforcement of the water proofing coating is recommended strictly. Reinforcement should be done with appropriate reinforcement materials (such as alkali resistant reinforcement mesh). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Insulation details of structures on the covering (such as pool lighting ar-

matures, discharge pipes, drains and faucets) should be figured out with appropriate water proofing solutions.

- Water-proofed areas must be protected for at least 24 hours from direct sun light, frost and rain.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Set consisting of sack of 25 kg (component A) + plastic drum of 6,25 lt (component B)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 5-30 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



VitrA Fix PROOF

Two component, full elastic, cement-based water proofing material



DESCRIPTION

Two component, cement based, high performance, super flexible water proofing material with improved adhesion. It is applied over surfaces exposed to water and humidity, particularly suited to application on positive pressure side. It must be over coated with tiles, micro porous paints or coatings.

AREAS OF USE

Suitable for use in internal and external, vertical and horizontal water proofing applications. Ideal onto private and public wet areas (bathroom, shower, WC and etc.) and kitchens, balconies and wide terraces, saunas and thermal pools, pools (private and olympic), water tanks, car-wash units, and etc. With its high performance, it is applicable on building foundations.

FEATURES

Material content

-powder component (A): High quality cement, additives providing flexibility and hydrophoby and improved adhesion.

-liquid component (B) : Synthetic resin based latex liquid.

Type : Powder (component A) + liquid (component B)

Color : Grey (component A) / white (component B)

Density : 1,4 gr/cm³ (component A) / 1,0 gr/cm³ (component B)

APPLICATION PROPERTIES

Mixture rate : 25 kg (component A) + 12,5 lt (component B)

Pot life : 1 hour

Application temperature: +5 °C - +30 °C

Application thickness : 2-3 mm

Drying time (initial set) : minimum 6 hours (23 °C, 50% relative humidity)

Set time : minimum 6 hours (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Flexibility : excellent

Resistance to humidity : excellent

Resistance to thermal shocks: -30 °C - +70 °C

Resistance to aging with heat: excellent

APPLICATION SURFACES

Suitable for use on cement and gypsum based screeds and plasters, and concrete substrates.

SURFACE PREPARATION

■ The substrate must be clean in order to ensure the material bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.

■ Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.

■ High porosity substrates (ie, gypsum plasters) should be primed with **VitrA Fix FILM** before water-proofing.

■ Impervious surfaces should be primed with **VitrA Fix FILM PLUS** before water-proofing.

■ The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.

■ **VitrA Fix PROOF** is not a leveling material. The deepest point of the application surface in 2 m long gauge should not exceed 2 mm. For larger deviations, the surface should be smoothened with either **VitrA Fix RM 20** or **VitrA Fix S 30**.

MIXING

■ Gradually add 25 kg of powder component A to 12,5 lt of liquid component B, and mix to a smooth and homogenous paste. It is recommended to use a low cycled electrical drill-mixer for mixing.

■ The paste should rest for 3 minutes prior to application and should be applied after remixing.

- Particularly suitable for water proofing of olympic pools, water tanks and wide terraces before tiling,
- Full elastic,
- Resistance to frost, moisture and thermal shocks.



+5 °C / +30 °C

25 kg powder + 12,5 lt liquid

1 hour

VitrA Fix PROOF

APPLICATION CONDITIONS

- The material should be applied at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- **VitrA Fix PROOF** is applied over the surface using a stiff brush or a paint roller at a minimum rate of 1,5 kg/m² (corresponding a coat thickness of 1 mm). It should be applied over the surface spreading out evenly and ensuring full overlap between each brush or roller application.
- 2 coats of application are recommended, ensuring a total thickness of 2-3 mm at minimum. The second coat should be applied as soon as the first coat has dried (reached initial set of 6 hours). Apply the second coat in right angles to the first coat application direction to ensure a pinhole free application (in practical, application is recommended in such that first coat in horizontal and second coat in vertical directions).
- Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any water leakages at cold joints (internal corners). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Following application must be done at least 48 hours later after water proofing material has set.

PRECAUTIONS

- **VitrA Fix PROOF** is a waterproofing coating used in structures subject to only positive water pressure. It is not suitable for water proofing against negative water pressure.
- If any roundish and lump or hard particles are observed in a new opened product package, do not use the product.
- Do not add more or less of the components into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add water into the mixture once the mixture is prepared.
- Do not apply directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, aerated concrete, precast-concrete, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not apply onto new render or concrete. Leave plaster and screed for at least 6 weeks before water proofing.
- Do not apply onto surface with high humidity.
- On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Drying time for **VitrA Fix PROOF** will be shortened due to high ambient temperatures, dry air and strong wind and applying onto high porosity substrates. It may also extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- **VitrA Fix PROOF** is a water proofing material to be applied prior to tiling. It should not be left open top, and must be covered with a suitable covering or coating material.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- Coats of water proofing must fully cover the surface with pinhole and joint free application. In case of incomplete coating, the surface will have weak points possibly causing leakage.
- If the area subject to water-proofing will be exposed to continual water pressure (such as pools or water tanks) reinforcement of the water proofing coating is recommended strictly. Reinforcement should be done with appropriate reinforcement materials (such as alkali resistant reinforcement mesh). Reinforcement is embedded in the first coat of water proofing, when the coat is still wet, as recommended by the reinforcement manufacturer. Upon drying of the reinforced first coat, second coat should be applied as described above.
- Insulation details of structures on the covering (such as pool lighting ar-

matures, discharge pipes, drains and faucets) should be figured out with appropriate water proofing solutions.

- Water-proofed areas must be protected for at least 24 hours from direct sun light, frost and rain.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to tile on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Set consisting of sack of 25 kg (component A) + plastic drum of 12,5 lt (component B)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures between 5-30 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix S 10 (3-10 mm thickness)



Self leveling compound



DESCRIPTION

Cement based, rapid setting, self leveling surface smoothing mortar. It is suitable for leveling the floors where surface deviation is below 10 mm. Self leveling feature allows a rapid and easy application. It forms a smooth surface with resistance to abrasion and dust formation.

AREAS OF USE

Suitable for use in internal areas as a flooring screed. It is used for leveling purposes for thicknesses of 3 mm to 10 mm. It forms a smooth substrate prior to the application of covering materials (tile, carpet, parquet, PVC, vinyl and etc.).

FEATURES

Material content: High quality cement, additives providing flexibility, quick-setting and improved adhesion, thick filling materials.
 Type : Powder
 Color : Grey
 Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 5,0-6,0 lt water / 25 kg powder
 Application thickness : 3-10 mm
 Pot life : 1 hour
 Application temperature : +5 °C - +30 °C
 Set time (for tiling) : minimum 6 hours
 (varies due to leveling thickness)
 Set time (for light pedestrian traffic): minimum 24 hours
 (varies due to leveling thickness)
 Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Compressive strength
 (After 1 day) : $\geq 15,0$ MPa (N/mm²)
 (After 7 days) : $\geq 25,0$ MPa (N/mm²)
 (After 28 days) : $\geq 35,0$ MPa (N/mm²)
 Bending strength
 (After 1 day) : $\geq 3,0$ MPa (N/mm²)
 (After 7 days) : $\geq 5,0$ MPa (N/mm²)
 (After 28 days) : $\geq 7,0$ MPa (N/mm²)
 Abrasion resistance
 (After 28 days) : < 2 gr
 Resistance to thermal shocks: -30 °C - +70 °C

REFERENCE STANDARD

TS EN 13813

APPLICATION SURFACES

Suitable for use on cement based screeds and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the compound bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates should be primed with **Vitra Fix FILM** before application.
- Impervious surfaces should be primed with **Vitra Fix FILM PLUS** before application.
- The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.
- Prior to application, the cracks and damages on the substrate should be fixed with **Vitra Fix RM 27** surface repairing mortar.

- Excellent performance of leveling up to 10 mm for indoor floors,
- Rapid and easy application with self leveling feature,
- Does not shrink or crack,
- High compressive strength,
- Suitable for applications onto existing tiles and under floor heated systems.



VitrA Fix S 10 (3-10 mm thickness)

MIXING

- Gradually add 5,0-6,0 lt (20-24%) of clean water to 25 kg of powder, and mix to a smooth and homogenous viscous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 2 minutes prior to application and should be applied then.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- **VitrA Fix S 10** spreads evenly on the surface by itself when poured onto the substrate from the mixing pot. To ease application, spread the compound with forward and backward directions using a steel trowel.
- **VitrA Fix S 10** is a fast setting compound. The compound should be applied fast immediately after when ready to use. When applying on a large area, the application should be done consecutively in small areas.
- When pouring the compound on the substrate, air bubbles may remain between the surface and the compound. After pouring the compound, use a spiked roller in forward and backward directions to avoid air bubbles.
- Due to self leveling feature of the compound, trowel and roller traces will disappear quickly.
- Following application must be done at least 6 hours later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the compound directly onto the existing ceramic tiles and metal, plastic, PVC or wooden substrates. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles on wet areas, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Set time for **VitrA Fix S 10** may extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- Large areas should be divided into smaller areas (rectangular areas ≤ 30 m², long edge at maximum 8 m). The joints within the divided areas function as expansion joints.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- If covered with wooden covering materials, application thickness of the leveling should be minimum 3 mm.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5-2,0 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



VitrA Fix S 30 (4-30 mm thickness)



Fiber reinforced, self leveling compound



DESCRIPTION

Cement based, rapid setting, fiber reinforced, self leveling surface smoothing mortar. It is suitable for leveling the floors where surface deviation is below 30 mm. Self leveling feature allows a rapid and easy application. It forms a smooth surface with resistance to abrasion and dust formation. Fiber reinforcement and its flexibility provide high compressive strength and it does not crush under heavy load.

AREAS OF USE

Suitable for use in internal areas as a flooring screed. It is used for leveling purposes for thicknesses of 4 mm to 30 mm. It forms a smooth substrate prior to the application of covering materials (tile, carpet, parquet, PVC, vinyl, epoxy and polyurethane coatings, and etc.). It should not be used in areas exposed to humidity and water.

FEATURES

Material content: High quality cement, additives providing flexibility, quick-setting and improved adhesion, fiber reinforcement and thick filling materials.

Type : Powder
 Color : Grey
 Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 5,0-6,0 lt water / 25 kg powder
 Application thickness : 4-10 mm
 Pot life : 1 hour
 Application temperature : +5 °C - +30 °C
 Set time (for tiling) : minimum 12 hours
 (varies due to leveling thickness)
 Set time (for light pedestrian traffic): minimum 24 hours
 (varies due to leveling thickness)
 Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Compressive strength
 (After 1 day) : $\geq 15,0$ MPa (N/mm²)
 (After 7 days) : $\geq 25,0$ MPa (N/mm²)
 (After 28 days) : $\geq 35,0$ MPa (N/mm²)
 Bending strength
 (After 1 day) : $\geq 3,0$ MPa (N/mm²)
 (After 7 days) : $\geq 5,0$ MPa (N/mm²)
 (After 28 days) : $\geq 7,0$ MPa (N/mm²)
 Abrasion resistance
 (After 28 days) : < 1,5 gr
 Resistance to thermal shocks: -30 °C - +70 °C

REFERENCE STANDARD

TS EN 13813

APPLICATION SURFACES

Suitable for use on cement based screeds and concrete substrates, existing wooden or parquet coverings, painted surfaces (polyurethane, epoxy, and acrylic).

SURFACE PREPARATION

- The substrate must be clean in order to ensure the compound bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates should be primed with **VitrA Fix FILM** before application.

- Excellent performance of leveling up to 30 mm for indoor floors,
- High compressive strength. Ideal for heavy load and pedestrian traffic,
- Rapid and easy application with self leveling feature,
- Does not shrink or crack,
- Suitable for applications onto existing tiles and under floor heated systems.



VitrA Fix S 30 (4-30 mm thickness)

- Impervious surfaces should be primed with **VitrA Fix FILM PLUS** before application.
- The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.
- Prior to application, the cracks and damages on the substrate should be fixed with **VitrA Fix RM 27** surface repairing mortar.

MIXING

- Gradually add 5,0-6,0 lt (20-24%) of clean water to 25 kg of powder, and mix to a smooth and homogenous viscous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 2 minutes prior to application and should be applied then.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C .
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- **VitrA Fix S 30** spreads evenly on the surface by itself when poured onto the substrate from the mixing pot. To ease application, spread the compound with forward and backward directions using a steel trowel.
- **VitrA Fix S 30** is a fast setting compound. The compound should be applied fast immediately after when ready to use. When applying on a large area, the application should be done consecutively in small areas.
- When pouring the compound on the substrate, air bubbles may remain between the surface and the compound. After pouring the compound, use a spiked roller in forward and backward directions to avoid air bubbles.
- Due to self leveling feature of the compound, trowel and roller traces will disappear quickly.
- Following application must be done at least 12 hours later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the compound directly onto the existing ceramic tiles and metal, plastic, PVC or wooden substrates. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles on wet areas, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Set time for **VitrA Fix S 30** may extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- Large areas should be divided into smaller areas (rectangular areas ≤ 30 m², long edge at maximum 8 m). The joints within the divided areas function as expansion joints.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- If covered with wooden covering materials, application thickness of the leveling should be minimum 3 mm.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.

- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5-2,0 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix F 50 (10-50 mm thickness)



Dry mortar



DESCRIPTION

Cement based dry mortar for surface smoothing. It is suitable for leveling the floors where surface deviation is below 50 mm, prior to fixing of covering materials of tiles, parquets, carpets, natural stones and etc. It allows delivering a flooring incline.

AREAS OF USE

Suitable for use in internal areas as a flooring screed. It is used for leveling purposes for thicknesses of 10 mm to 50 mm. It forms a leveled substrate prior to the application of covering materials (tile, carpet, parquet, and etc.). It is reliable on industrial floors. It should not be used in areas exposed to humidity and water.

FEATURES

Material content: High quality cement, additives and thick filling materials.

Type : Powder
Color : Grey
Density : 1,3 gr/cm³

APPLICATION PROPERTIES

Mixture rate	: 2,5 lt water / 25 kg powder
Application thickness	: 10-50 mm
Pot life	: 3 hour
Application temperature	: +5 °C - +30 °C
Set time (for tiling)	: minimum 48 hours (varies due to leveling thickness)
Set time (for light pedestrian traffic)	: minimum 48 hours (varies due to leveling thickness)
Final set time	: 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to alkalis : good
Resistance to thermal shocks: -30 °C - +70 °C

APPLICATION SURFACES

Suitable for use on cement based screeds and concrete substrates.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the compound bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates should be primed with **Vitra Fix FILM** before application.
- Impervious surfaces should be primed with **Vitra Fix FILM PLUS** before application.
- The surfaces exposed to direct sun light and have a surface temperature above +30 °C must be cooled by damping.
- Prior to application, the cracks and damages on the substrate should be fixed with **Vitra Fix RM 27** surface repairing mortar.

MIXING

- Gradually add 2,5 lt (10%) of clean water to 25 kg of powder, and mix to a smooth and homogenous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 2 minutes prior to application and should be applied then.

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.

- Excellent performance of leveling up to 50 mm for indoor floors,
- High compressive strength. Ideal for heavy load and pedestrian traffic,
- Does not shrink or crack,
- Suitable for applications onto existing coverings and under floor heated systems.



VitrA Fix F 50 (10-50 mm thickness)

- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Spread **VitrA Fix F 50** on the surface (already primed with **VitrA Fix FILM**) at a single layer.
- By using a gauge the compound is spread and compressed well, and leveled evenly on the surface. The floor incline can be applied if required.
- After leveling, cementitious emulsion acc. to manufacturers recommendations is poured onto the compound to have a stiffer screed.
- To ease in a large area application, precede the application in consecutive small areas.
- Following application must be done at least 48 hours later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the compound directly onto the existing ceramic tiles and metal, plastic, PVC or wooden substrates. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- To prevent water puddles on wet areas, the floor should be inclined. On terraces, wet areas and similar areas there should be an incline of 3% on the floor along the direction of drain.
- Set time for **VitrA Fix F 50** may extend in lower temperatures and/or high humidity conditions, or when applying onto impervious or sealed surfaces.
- Large areas should be divided into smaller areas (rectangular areas ≤ 30 m², long edge at maximum 8 m). The joints within the divided areas function as expansion joints.
- Expansion joints should be incorporated to allow for slight movements due to changes in temperature, humidity and thermal and mechanical loads formed on the surface and substrate. Expansion joints should be provided considering heat transmitting systems and insulation applications, floors exposed to heavy traffic and pedestrian loads, wideness of the area, where tiling meets other materials, along all internal corners, existing movement joints or changes in background material. Large tiled areas must be divided into bays (every 4 to 8 m due to tile sizes and type). Expansion joints should be insulated by using proper profiles or mastics.
- If covered with wooden covering materials, application thickness of the leveling should be minimum 3 mm.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- Before tiling in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5-2,0 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

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VitrA Fix SM 610

- After application rip off the masking tapes. Sealant remains can be easily cleaned with a cloth when wet. When dried, sealant remains can be cleaned only mechanically.

PRECAUTIONS

- Sealant is not suitable for acid sensitive surfaces, inox, aluminum and metals, polished marbles or limestone. It would cause fade-out, colour deterioration, stains and corrosion.
- It should not contact with cementitious, EPDM, APTK and neoprene surfaces. Contact may cause colour detortiations and deformations more noticeable in dark coloured surfaces.
- A pre-test should be performed in a spare part of the surface to verify that the surface is resistant to acidic effect.
- It is not used for bonding glazed surfaces each other.
- It is not suitable for use in aquariums for neither sealing nor bonding purposes.
- It is not paintable.
- Curing duration will be longer at low temperatures, in high humidity and low-ventilated closed areas.

COVERAGE

- The approximate coverage amount may vary depending on the application thickness: 10-12 linear meters / 310 ml cartridge.

PACKAGING

- Plastic cartridges of 310 ml (25 cartridges in a box)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 18 months from date of manufacture. Production date and charge number is displayed on the packaging. If the expire date has passed, the product should be intended to use due to quality control test evaluations.
- When not used, opened cartridges should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to acidic content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled during application (sealant cures with air and exposes acetic acid vapor). The area should be ventilated during application. Mask should be used if necessary.
- Do not swallow. If swallowed, immediately seek medical help.
- Keep the product out of the reach of children.

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VitrA Fix SM 810

- Sealant is applied by means of a sealant gun. Insert the cartridge into the sealant gun and cut off its tip diagonally considering the joint width. Apply adequate amount of sealant into the joint.
- The surface should be smoothened by using a sealant pen or spatula no later than sealant forms a skin.
- After application rip off the masking tapes. Sealant remains can be easily cleaned with a cloth when wet. When dried, sealant remains can be cleaned only mechanically.

PRECAUTIONS

- Sealant is not suitable for marbles or limestone. It would cause fade-out, colour deterioration and stains.
- It should not contact with EPDM, APTK and neoprene surfaces. Contact may cause colour deteriorations.
- A pre-test should be performed in a spare part of the surface to verify that the surface is resistant to the sealant.
- It is not used for bonding glazed surfaces each other.
- It is not suitable for use in aquariums for neither sealing nor bonding purposes.
- It is not paintable.
- Curing duration will be longer at low temperatures, in high humidity and low-ventilated closed areas.

COVERAGE

- The approximate coverage amount may vary depending on the application thickness: 10-12 linear meters / 310 ml cartridge.

PACKAGING

- Plastic cartridges of 310 ml (25 cartridges in a box).

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 18 months from date of manufacture. Production date and charge number is displayed on the packaging. If the expire date has passed, the product should be intended to use due to quality control test evaluations.
- When not used, opened cartridges should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to acidic content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled during application (sealant cures with air and exposes acetic acid vapor). The area should be ventilated during application. Mask should be used if necessary.
- Do not swallow. If swallowed, immediately seek medical help.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix MS 02

Single component hybrid joint fill mastic



DESCRIPTION

Single-component, MS-Polymer based hybrid grouting and adhesive mastic. It is suitable for multi-purpose use. It is ready to use, cures fast with the humidity of the air and generates an elastic form. It does not sag during or after application. It has no absorptivity. It is resistant to UV and outdoor conditions, weak acids, diluted alkalis and salty water. It is neutral, non-corrosive and odor free. It does not contain any of isocyanates and silicones. It has long shelf life. It employs its full performance and elasticity at low ($-30\text{ }^{\circ}\text{C} \leq$) or high ($\leq 80\text{ }^{\circ}\text{C}$) temperatures.

AREAS OF USE

Suitable for connection and expansion joints of indoor and outdoor sections of structures; joints at high-rise structures, windows and door systems and roofs, insulation on wooden and metal structures and particularly at food factories.

FEATURES

Material content: MS Polymer
 Type : Mastic
 Color : Concrete grey / white / black
 Density : 1,50 gr/cm³

APPLICATION PROPERTIES

Consistency : non-sag
 Application tool : mastic gun
 Application temperature : $+5\text{ }^{\circ}\text{C} - +40\text{ }^{\circ}\text{C}$
 Set time (initial / for contact) : minimum 10 minutes
 Set time (formation of surface film): minimum 24 hours (for 3 mm thickness)

TECHNICAL PERFORMANCE

Tensile strength : 1,4-1,6 N/mm²
 Ultimate elongation : 250%
 Hardness (Shore A) : 50
 Modulus (100% flexion) : 1,0 N/mm²
 Expansion ratio : 20% (depends upon joint width)
 Resistance to thermal shocks: $-30\text{ }^{\circ}\text{C} - +80\text{ }^{\circ}\text{C}$

APPLICATION SURFACES

Particularly suitable on glazed tiles, vitrified sanitary ware, glass, plastics, polyester, PVC, wood (primed, painted or coated finish), metal (aluminum, zinc, copper, steel), enamel, concrete, cementitious surfaces.

SURFACE PREPARATION

- The surface must be clean in order to ensure the mastic bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier.
- Ensure that surfaces are mature, sound, stable and smooth, and dry.
- Impervious surfaces (glass, vitrified wares, and etc.) should be cleaned with a solvent containing cleaning material. The material should be wiped off from the surface before it dries.
- According to surface format, priming may be required to reinforce bonding.
- Prior to application on plastic surfaces, the bonding performance should be observed with a sample application.

APPLICATION CONDITIONS

- The mastic should be used at an ambient temperature range of $+5\text{ }^{\circ}\text{C} - +40\text{ }^{\circ}\text{C}$.
- Application surface temperature must be above $+5\text{ }^{\circ}\text{C}$. The surface should have no risk of freezing.

APPLICATION

- The sides of joint should be taped for masking in order to prevent the excessive mastic to contaminate rest of the surface.

- High flexibility with excellent adhesion,
- Resistant to outdoor conditions and UV,
- Ideal for filling expansion joints,
- Solvent, silicone and isocyanate free content,
- Odourless.



VitrA Fix MS 02

- Mastic is applied by means of a sealant gun. Insert the cartridge into the sealant gun and cut off its tip diagonally considering the joint width. Apply adequate amount of mastic into the joint.
- To save in the amount of mastics to use, deep joints are recommended to be first filled with polyethylene elastic filaments with suitable sizes. Then, the mastic should be applied into the joint as well as leveled to the covering.
- The surface should be smoothed by using a sealant pen or spatula no later than mastic forms a skin.
- After application rip off the masking tapes. The fresh mastic can be wiped of the surface using a thinner. When dried, mastic remains can be cleaned only mechanically.

PRECAUTIONS

- Mastic is not suitable for marbles or limestones. It would cause fade-out, colour deterioration and stains.
- It should not contact with EPDM, APTK and neoprene surfaces. Contact may cause colour detortiations.
- A pre-test should be performed in a spare part of the surface, particularly on composite facade coverings (hydrophobic composite materials) to verify that the surface is resistant to the mastic. Adhesion strength may weaken on acrylic materials due to softener content.
- It should not contact with asphalt, bitumen, alcohol based agents and not resistant to solvents.
- It is not suitable for use in pools (in direct long term contact with pool water).

COVERAGE

- The approximate coverage amount may vary depending on the application thickness: 6 linear meters with 1 cm² volume / 600 ml cartridge

PACKAGING

- Plastic cartridges of 290 ml (20 cartridges in a box)
- Sausage cartridges of 600 ml (20 cartridges in a box)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 18 months from date of manufacture. Production date and charge number is displayed on the packaging. If the expire date has passed, the product should be intended to use due to quality control test evaluations.
- When not used, opened cartridges should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to aminosilane content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled during application (mastic cures with air and exposes vapour). The area should be ventilated during application. Mask should be used if necessary.
- Do not swallow. If swallowed, immediately seek medical help.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix RM 20 (5-20 mm thickness)



Surface smoothing and repairing mortar



DESCRIPTION

Cement based, water and humidity resistant, easily applied surface smoothing and repairing mortar with thick fillings. It allows leveling and smoothing of surface deviations, and repairing of deep cracks and surface damages with thicknesses up to 20 mm. It has a high adhesion performance on the substrate. It is resistant to outdoor conditions.

AREAS OF USE

Suitable for use on internal and external walls and facades for plastering. It can be covered or coated with any kind of material which adheres on cementitious substrates.

FEATURES

Material content: High quality cement, additives providing improved adhesion and thick filling materials.

Type : Powder
Color : Grey / white
Density : 1,2 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 4,5-5,5 lt water / 25 kg powder
Application thickness : 5-20 mm
Pot life : 3 hours
Application temperature : +5 °C - +35 °C
Set time (initial / for smoothing): minimum 30 minutes
(varies due to leveling thickness)
Set time (for covering / coating) : minimum 3 days
(varies due to leveling thickness)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to alkalis : good
Resistance to thermal shocks: -30 °C - +70 °C

REFERENCE STANDARD

TS EN 13813

APPLICATION SURFACES

Suitable for use on cement based and concrete substrates, bricks and briquette blocks.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the plaster bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates with high porosity should be primed with **Vitra Fix FILM** before application.
- Impervious surfaces should be primed with **Vitra Fix FILM PLUS** before application.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- Dry substrates should be dampened before application.

MIXING

- Gradually add 4,5-5,5 lt (18-22%) of clean water to 25 kg of powder, and mix to a smooth and homogenous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 5 minutes prior to application and should be applied after remixing.

- Excellent performance of leveling up to 20 mm thickness,
- Does not shrink or crack,
- Resistant to outdoor conditions.



VitrA Fix RM 20 (5-20 mm thickness)

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Spread **VitrA Fix RM 20** evenly on the surface by using a steel trowel.
- 20-30 minutes after application (when the plaster completes its initial set and the surface gets dry), the plaster surface can be smoothed by using a plain steel trowel or with a damp sponge. To give a threadbare surface texture, it is recommended to use a plastic trowel.
- If the surface dries during smoothing process, damp the surface to allow an easy application.
- While applying during windy, sunny, hot and dry weathers, damping the smoothed surface once in 2-3 hours will prevent any cracks caused by sudden setting.
- Following application must be done at least 3 days later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the plaster directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- For **VitrA Fix RM 27**, pot life and initial set time for smoothing are 3 hour and 20-30 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and plastering onto high porosity substrates). On this account, wetness of the plaster should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when plastering onto impervious or sealed surfaces.
- Expansion joints on the substrate should not be filled or plastered. Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For plastering onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to plaster on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.
- Cold joints between block pannels (gypsum boards, plaster boards, and etc.) might be covered with plaster (plaster poured out at 10 cm width along each side of the joint) Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the pannels move. Reinforcement is embedded in the plaster, when the plaster is still wet, as recommended by the reinforcement manufacturer.
- Before plastering in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).
- To improve the technical performance of the plaster, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

Note: The initial controls of our product are made during the production phase. We guarantee the stability of our products' quality. All recommendations and instructions on the technical sheet are generally based on our experience. Please contact us for applications on special surfaces not mentioned in the technical sheet. Our company reserves the right to update the information on the technical sheet in the case of technical necessities without prior notice. This new catalogue supercedes the previous editions.



Vitra Fix RM 27 (2-7 mm thickness)



Surface smoothing and repairing mortar



DESCRIPTION

Cement based, water and humidity resistant, easily applied surface smoothing and repairing mortar. It allows leveling and smoothing of surface deviations, and repairing of cracks and surface damages with thicknesses up to 7 mm. It has a high adhesion performance on the substrate. It is resistant to outdoor conditions.

AREAS OF USE

Suitable for use on internal and external walls and facades for plastering. It can be covered or coated with any kind of material which adheres on cementitious substrates.

FEATURES

Material content: High quality cement, additives providing improved adhesion and thick filling materials.

Type : Powder
Color : Grey / white
Density : 1,2 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 6,0-6,5 lt water / 25 kg powder
Application thickness : 2-7 mm
Pot life : 3 hour
Application temperature : +5 °C - +35 °C
Set time (initial / for smoothing): minimum 30 minutes
(varies due to leveling thickness)
Set time (for covering / coating) : minimum 3 days
(varies due to leveling thickness)
Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to alkalis : good
Resistance to thermal shocks: -30 °C - +70 °C

REFERENCE STANDARD

TS EN 13813

APPLICATION SURFACES

Suitable for use on cement based and concrete substrates, bricks and briquette blocks.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the plaster bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates with high porosity should be primed with **Vitra Fix FILM** before application.
- Impervious surfaces should be primed with **Vitra Fix FILM PLUS** before application.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- Dry substrates should be dampened before application.

MIXING

- Gradually add 6,0-6,5 lt (24-26%) of clean water to 25 kg of powder, and mix to a smooth and homogenous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 5 minutes prior to application and should be applied after remixing.

- Ideal for leveling and smoothing concrete substrates and surface preparation prior to painting.
- Excellent performance of leveling up to 7 mm.
- Does not shrink or crack.



VitrA Fix RM 27 (2-7 mm thickness)

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Spread **VitrA Fix RM 27** evenly on the surface by using a steel trowel with a thickness of 2-3 mm. For a plastering thickness up to 7 mm apply a second plaster coat. Before plastering the second coat, wait for at least 6 hours for the first coat to complete its set.
- 20-30 minutes after application (when the plaster completes its initial set and the surface gets dry), the plaster surface can be smoothed by using a plain steel trowel or with a damp sponge. To give a threadbare surface texture, it is recommended to use a plastic trowel.
- If the surface dries during smoothing process, damp the surface to allow an easy application.
- While applying during windy, sunny, hot and dry weathers, damping the smoothed surface once in 2-3 hours will prevent any cracks caused by sudden setting.
- Following application must be done at least 3 days later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the plaster directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- For **VitrA Fix RM 27**, pot life and initial set time for smoothing are 3 hour and 20-30 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and plastering onto high porosity substrates). On this account, wetness of the plaster should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when plastering onto impervious or sealed surfaces.
- Expansion joints on the substrate should not be filled or plastered. Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For fixing onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to plaster on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.
- Cold joints between block pannels (gypsum boards, plaster boards, and etc.) might be covered with plaster (plaster poured out at 10 cm width along each side of the joint) Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the pannels move. Reinforcement is embedded in the plaster, when the plaster is still wet, as recommended by the reinforcement manufacturer.
- To prevent cracks that may form on plaster surface due to shrinkage in thick applications, a reinforcement mesh (alkali resistant type) can be applied between coats. Reinforcement mesh is embedded in the first coat of plaster, when its still wet as recommended by the reinforcement manufacturer.
- Before plastering in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).
- To improve the technical performance of the plaster, it is recommended to add **VitrA Fix LATEX** into the mixing water in the ratio 1:3 (As for the mixing water; instead of 3 scales of water, 2 scales of water and 1 scale of **VitrA Fix LATEX**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

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Vitra Fix RM FLAT (0-3 mm thickness)



Surface smoothing plaster



DESCRIPTION

Cement based, easily applied surface smoothing and finishing plaster. It allows smoothing and finishing of substrates with thicknesses up to 3 mm. It is particularly suitable for preparing the substrate for paint coatings. It has a high adhesion performance on the substrate. It is resistant to outdoor conditions.

AREAS OF USE

Suitable for use on internal and external walls and facades for plastering. It can be covered or coated with any kind of material which adheres on cementitious substrates.

FEATURES

Material content: High quality cement, additives providing improved adhesion and thick filling materials.
 Type : Powder
 Color : White
 Density : 1,2 gr/cm³

APPLICATION PROPERTIES

Mixture rate : 10,0-10,5 lt water / 25 kg powder
 Application thickness : 0-3 mm
 Pot life : 3 hour
 Application temperature : +5 °C - +35 °C
 Set time (initial / for smoothening): minimum 30 minutes
 (changes due to leveling thickness)
 Set time (for covering / coating) : minimum 3 days
 (changes due to leveling thickness)
 Final set time : 28 days (23 °C, 50% relative humidity)

TECHNICAL PERFORMANCE

Resistance to alkalis : good
 Resistance to thermal shocks: -30 °C - +70 °C

REFERENCE STANDARD

TS EN 13813

APPLICATION SURFACES

Suitable for use on cement based and concrete substrates, bricks and briquette blocks.

SURFACE PREPARATION

- The substrate must be clean in order to ensure the plaster bonds properly. Surfaces should be clean and free from dust, dirt, grease or any other contaminating barrier. Subsequently hardened or polished surfaces and laitance (concrete and etc.) must be removed by scabbling.
- Ensure that substrate is mature, sound, stable and smooth, and not too dry or wet.
- Substrates with high porosity should be primed with **Vitra Fix FILM** before application.
- Impervious surfaces should be primed with **Vitra Fix FILM PLUS** before application.
- The surfaces exposed to direct sun light and have a surface temperature above +35 °C must be cooled by damping.
- Dry substrates should be dampened before application.

MIXING

- Gradually add 10,0-10,5 lt (40-42%) of clean water to 25 kg of powder, and mix to a smooth and homogenous compound. It is recommended to use a low cycled electrical drill-mixer for mixing.
- The compound should rest for 5 minutes prior to application and should be applied after remixing.

- Ideal for smoothing surfaces for a satin look prior to painting applications,
- Excellent performance of leveling up to 3 mm on walls,
- Does not shrink or crack.



VitrA Fix RM FLAT (0-3 mm thickness)

APPLICATION CONDITIONS

- The compound should be used at an ambient temperature range of +5 °C - +30 °C.
- Application surface temperature must be above +5 °C. The surface should have no risk of freezing.
- Application on hot surfaces and during sunny and/or windy weather is not recommended.

APPLICATION

- Spread **VitrA Fix RM FLAT** evenly on the surface by using a steel trowel with a peeling move.
- 20-30 minutes after application (when the plaster completes its initial set and the surface gets dry), the plaster surface can be smoothed by using a plain steel trowel or with a damp sponge.
- If the surface dries during smoothing process, damp the surface to allow an easy application.
- While applying during windy, sunny, hot and dry weathers, damping the smoothed surface once in 2-3 hours will prevent any cracks caused by sudden setting.
- Following application must be done at least 3 days later after leveling application.

PRECAUTIONS

- If any roundish and lump or hard particles are observed in a new opened bag, do not use the product.
- Do not add more or less water into the mixture than it is specified on the technical legends on the product packaging or technical data sheets.
- Do not add more water into the mixture once the mixture is prepared.
- Do not apply the plaster directly onto the existing ceramic tiles and metal, plastic, PVC, wooden, cement based chip boards, aerated concrete, precast-concrete, gypsum plastered, gypsum board, under floor heated and painted surfaces. Please consult technical service for solutions.
- Do not tile onto new render or concrete. Leave screed for at least 6 weeks before tiling.
- For **VitrA Fix RM FLAT**, pot life and initial set time for smoothing are 3 hour and 20-30 minutes, respectively. Durations will be shortened for applications with inconvenient conditions (due to high ambient temperatures, dry air and strong wind and plastering onto high porosity substrates). On this account, wetness of the plaster should be tested by touching in case of early setting. Durations may extend in lower temperatures and/or high humidity conditions, or when plastering onto impervious or sealed surfaces.
- Expansion joints on the substrate should not be filled or plastered. Expansion joints should be insulated by using proper profiles or mastics.

SPECIAL CONDITIONS

- For plastering onto impervious surfaces like existing tiles the surface must be primed. As a primer **VitrA Fix FILM PLUS** or the mixture prepared by mixing **VitrA Fix FLEX PORSELEN** and **VitrA Fix LATEX** in equal amounts is recommended.
- It is applicable to plaster on gypsum based substrates in internal areas whether primed with **VitrA Fix FILM**.
- Cold joints between block pannels (gypsum boards, plaster boards, and etc.) might be covered with plaster (plaster poured out at 10 cm width along each side of the joint) Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent any cracks if the pannels move. Reinforcement is embedded in the plaster, when the plaster is still wet, as recommended by the reinforcement manufacturer.
- Before plastering in wet areas (bathroom, shower, etc.), it is recommended to apply water proofing first (**VitrA Fix HYDROSTOP**, **VitrA Fix PROOF S** of **VitrA Fix PROOF**).

COVERAGE

- The approximate coverage amount (kg/m²) may vary depending on the application surface deviation: For 1 mm thickness of coating 1,5 kg/m²

PACKAGING

- Kraft sacks of 25 kg (48 sacks / 1200 kg on a pallet)

STORAGE AND SHELL LIFE

- When stored unopened in a cool, dry place at temperatures above 5 °C, shelf life is 12 months from date of manufacture. Production date and charge number is displayed on the packaging.
- The products should not be stored in damped or submerged warehouses. At maximum 10 craft sacks should be overlaid for storage.
- When not used, opened packages should be closed tightly to avoid air contact.

HEALTH AND SAFETY

- Irritating to eyes and skin due to cement content. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Wear suitable protective clothing, gloves and eyes/face protection.
- The product should not be inhaled. Dust mask should be used if necessary.
- Keep the product out of the reach of children.

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		TILE ADHESIVE								
		FIXER	COTTO	FLEX PORSELEN	POOL	FLEX RAPID	RAPID SET	FLOOR PLUS	ULTRA SYSTEM	HP
TILE FORMAT	CERAMIC TILE (FOR WALLS)	≤ 33x33 cm	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 33x33 cm	< 30x60 cm*	≤ 60x60 cm	< 30x60 cm
	CERAMIC TILE (FOR FLOORS)	≤ 33x33 cm	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	≤ 33x33 cm	< 30x60 cm*	≤ 60x60 cm	< 30x60 cm
	PORCELAIN TILE			< 30x60 cm*	< 30x60 cm*	< 30x60 cm*		< 30x60 cm*	≤ 60x60 cm	< 30x60 cm
	GLASS TILE / MOSAIC			< 30x60 cm*	< 30x60 cm*	< 30x60 cm*			≤ 60x60 cm	< 30x60 cm
	GRANITE TILE		< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*		< 30x60 cm*	≤ 60x60 cm	
	MARBLE & NATURAL STONE		< 30x60 cm*	< 30x60 cm*	< 30x60 cm*	< 30x60 cm*		< 30x60 cm*	≤ 60x60 cm	
	THERMAL INSULATION BOARD			≤ 60x120 cm	≤ 60x120 cm	≤ 60x120 cm			≤ 60x60 cm	< 30x60 cm
	POOL TILE				< 30x60 cm*				≤ 60x60 cm	
APPLICATION AREA	INTERIOR	FLOORS ●	●	●	●	●	●	●	●	●
		WALLS ●		●	●	●	●		●	●
	EXTORIOR	FLOORS ●	●	●	●	●		●	●	
		WALLS ●		●	●	●			●	●
	WET AREA & BATHROOM	●	●	●	●	●	●	●	●	●
	KITCHEN	●	●	●	●	●	●	●	●	●
	TURKISH BATH & SAUNA			●	●	●		●	●	
	UNDER FLOOR HEATED SYSTEM			●	●	●		●	●	●
	WALK WAY		●	●	●	●		●	●	
	TERRACE		●	●	●	●		●	●	
	PARKING AREA		○○○	○○○	○○○	○○○		■	■	
	INDUSTRIAL AREA & FLOORS			○○○	○○○			■	■	
	SHOPPING CENTER			●	●	●		●	●	
	HOSPITAL		●	●	●	●		●	●	
	BOUTIQUE POOL			●	●	●			●	
	THERMAL POOL			○○○	●				●	
SWIMMING POOL			○○○	●				●		
SUBSTRATE	EXISTING TILE / MOSAIC		○○	○○	○○	○○		○○	●	●
	GYPSUM (PANNEL & PLASTERS & BLOCK)	○		○	○	○	○		○	●
	CONCRETE		○	○	○	○		○	●	●
	TIMBER (OSB & CHIPBOARD)									●
	CEMENTITIOUS CHIPBOARDS									●
	LIME BASED PLASTER									●
	CEMENT BASED SCREED	●	●	●	●	●	●	●	●	●
	CEMENT BASED PLASTER	●	●	●	●	●	●		●	●
	PLASTERED THERMAL INSULATION BOARD			●	●	●			●	
ACRYLIC BASED PAINT	○○		○○	○○	○○	○○		○○	○○	

● Applicable.
 ○ Substrate should be primed with **VitrA Fix FILM** adhesion primer.
 ○ Substrate should be primed with **VitrA Fix FILM PLUS** high performance adhesion primer.
 ○ **VitrA Fix LATEX** performance improving additive should be added into the adhesive.
 ○ Applicable for tile sizes ≤ 60 x 60 cm when **VitrA Fix LATEX** performance improving additive is added into the adhesive.

		GROUTING MATERIALS					
		1-6 MM	FLEX 0-3 MM	FLEX 3-10 MM	POOL G 2-10 MM	RUSTIK 3-20 MM	EPOXY
TILE FORMAT	CERAMIC TILE (FOR WALLS)	●	●	●	●		
	CERAMIC TILE (FOR FLOORS)	●	●	●	●		
	PORCELAIN TILE		●	●	●		●
	GLASS TILE / MOSAIC		●				
	GRANITE TILE	●	●	●	●		●
	MARBLE & NATURAL STONE	●	●	●	●	●	
	POOL TILE				●		●
	METAL TILE						●
APPLICATION AREA	JOINT WIDTH	1-6 mm	0-3 mm	3-10 mm	2-10 mm	3-20 mm	3-15 mm
	INTERIOR (FLOORS & WALLS)	●	●	●	●	●	●
	EXTERIOR (FLOORS & WALLS)	○	●	●	●	●	●
	WET AREA & BATHROOM		●	●	●		
	KITCHEN		●	●	●	●	●
	TURKISH BATH & SAUNA		○	○	●		●
	WALK WAY & GARDEN WALLS		●	●	●	●	
	TERRACE		●	●	●	●	●
	PARKING AREA		○	○	●		●
	INDUSTRIAL AREA & FLOORS		○	○	●		●
	INDUSTRIAL KITCHEN				●		●
	SHOPPING CENTER		●	●	●		●
	HOSPITAL		●	●	●		●
	BOUTIQUE POOL		○	○	●		●
	THERMAL POOL				●		●
	SWIMMING POOL						●
	FLEXIBLE FLOORS (WOODEN & STEEL CONSTRUCTION)		●	●	●		
	LABORATORY				●		●
	FOOD FACTORY						●

● Applicable.
 ○ **VitrA Fix LATEX** performance improving additive should be added into the grouting material.

		WATERPROOFING MATERIALS				
		HYDROSIL	HYDROSTOP	PROOF HG	PROOF S	PROOF
APPLICATION AREA	DRINKABLE WATER TANK				●	●
	WATER TANK		●		●	●
	WET AREA & BATHROOM		●	●	●	●
	KITCHEN		●	●	●	●
	TURKISH BATH & SAUNA		●	●	●	●
	TERRACE					●
	BOUTIQUE POOL					●
	THERMAL POOL					●
	SWIMMING POOL					●
	EXTERNAL FAÇADE	●				
	GARDEN WALLS	●				
	AREA < 300 m²		●	●	●	
	AREA > 300 m²	●				●

● Applicable.



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Not: All recommendations and instructions on the technical catalogue are generally based on our experience and laboratory tests. Please consult us for technical advice for applications on special surfaces not mentioned in the technical catalogue. Our company reserves the right to update the information on the technical catalogue in case of technical necessities without prior notice. The technical sheets in the technical catalogue cannot be used as a guarantee letter for any circumstance. Our company cannot be hold responsible for the false values or technical statements caused by printing mistakes. This new catalogue supersedes the previous editions.

