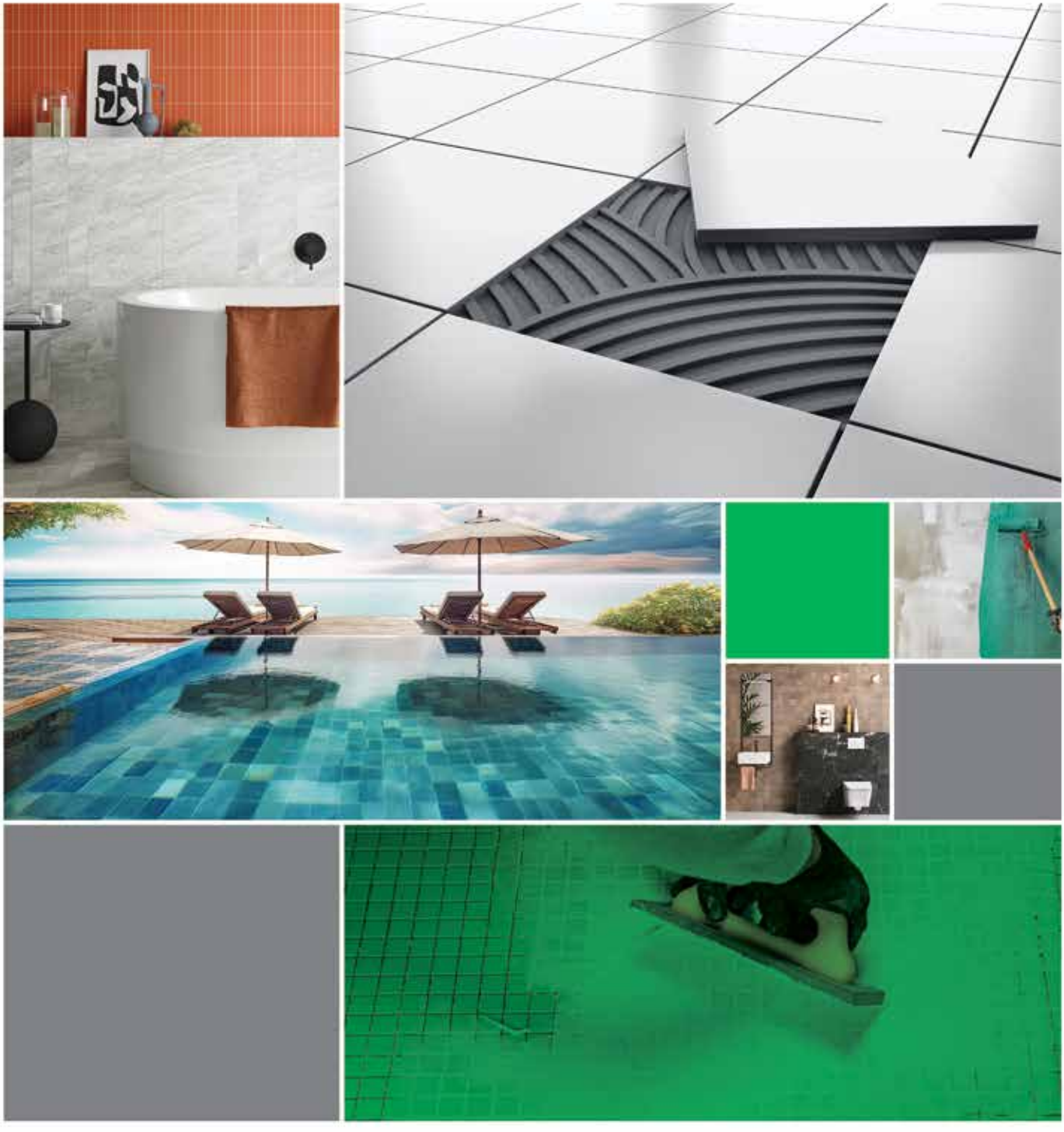
VitrA FIX

Building Chemicals

VitrA



VITRA FIX PRODUCT CATALOG INDEX

Koramic Construction Chemicals

Koramic Construction Chemicals was established in 1998 as a result of a 50-50% partnership agreement between Koramic Building Products S.A., headquartered in Belgium, and Eczacıbaşı Group. With the agreement signed in June 2011, 100% of the shares of the company were transferred to the Koramic Group and its new trade name was Koramic Yapı Kimyasalları Sanayi ve Ticaret Anonim Şirketi.

In 2019, Koramic Group wanted to continue the company with a local partner and a partnership agreement was signed with Tekkon Mühendislik İnş.Tic.ve San. A.Ş., a Tekkon Group company. Tekkon Mühendislik A.Ş. has brought a new breath and target to the company with its know-how in the marketing of construction chemicals abroad.

The aim of the organization is to pioneer the development and production of new products in the field of construction chemicals in the construction sector in Turkey, to contribute to the maintenance of the continuity of quality in the products in the field and to produce systematic solutions for the correct use of these products.

Koramic Construction Chemicals manufactures 248 thousand tons of bonding mortars, joint filling materials, waterproofing materials, self-leveling screeds, primers and mortar additives, post-application cleaning and maintenance products, repair and surface correction plasters, sealing and expansion sealants and exterior thermal insulation systems in Bozüyük / Bilecik factory with 188 thousand tons of annual capacity and Tarsus / Mersin factory with 60 thousand tons of annual capacity, which have the most advanced technologies in Turkey and Europe. Koramic Construction Chemicals continues to produce VitrA Fix brand for Eczacıbaşı Building Group.

Production Facilities

Bozüyük / Bilecik Facility

Bozüyük Plant was commissioned in November 2015 in the Organized Industrial Zone and started production. With Koramic's belief in development and continuity in quality, brand new products are being developed in the huge factory equipped with modern laboratories and state-of-the-art equipment, where a very large and special area is reserved for R&D.

Total area	*: 22.000 m²*
Total closed area	*: 8.000 m²*
Annual production capacity	*: 188.000 tons/year*

Tarsus / Mersin Facility

Established in November 2007, the South Anatolian production facility is of great importance for the organization to play a more effective role in domestic and international target markets in the medium and long term and to ensure product market penetration more easily. The facility, which took six months to complete, is located 23 km from Mersin Port, 75 km from Adana, 20 km from Mersin and 250 km from Gaziantep. With an annual production capacity of 60,000 tons/ year, the plant has a flexible production system that can produce gray and white cement in parallel.

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

VitrA FIX

For Perfect Applications

VitrA Fix Solutions

In 49 countries around the world...

VitrA Fix branded ceramic tile and natural stone application solutions

Adhesives
Joint Fillers
Waterproofing Products
Performance Enhancing Primers and Additives
Surface Cleaning and Care Products
Repair, Grout Mortars
Floor Products
Sealing and Expansion Sealants

The right product.
The right solution.
High performance.

Website

www.vitrafix.com.tr

Our website provides you with the most up-to-date information about the products and solutions we offer. It is now easier to use the product wizard where you can access the right product selection and application specifications supported with visuals in ceramic applications. You can now easily access all kinds of technical information about our products, our sales points and interactive tools that can meet your technical support needs.

Technical Support

You can always get professional consultancy and technical advice on our products. We will recommend you the most suitable products or system solutions for your project details and needs. When you prefer our products, we can visit your construction site upon your request and check the application or offer on-site solutions to the problems you encounter.

Technical Seminars and Product Trainings

We attach great importance to product and application trainings in order to meet the needs of the construction sector more efficiently and effectively by applying our products correctly. We prepare our training programs with the principle of the right system, the right application and serve the construction sector at high standards. You can request one of the trainings designed according to your needs from us.

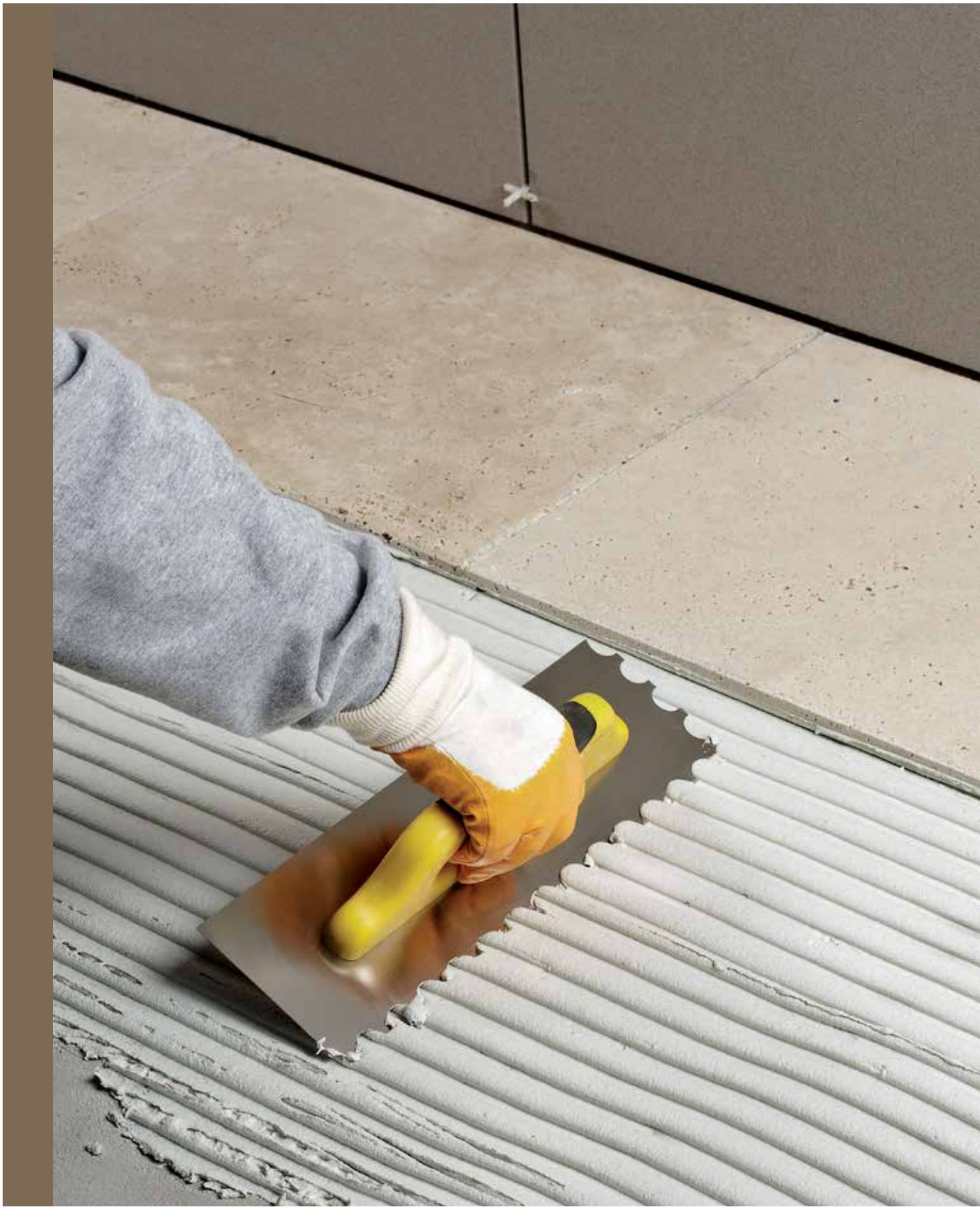
- Training seminars for Engineering-Architecture Chambers, Public and Universities

- Product introduction meetings for contractor companies and architectural offices

- Detailed product and application trainings for technical staff

- Practical training camps for technical staff and application teams for 2-3 days in Bozüyük and Tarsus factories


For iconic
living spaces
QUALITY
SOLUTIONS
VitrA
HP
VitrA
FLEXY
FIX
150
VitrA
C2T
CE



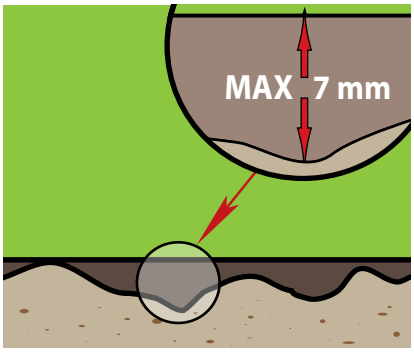
CERAMIC TILE APPLICATION TECHNIQUES

SUBSTRATE PREPARATION

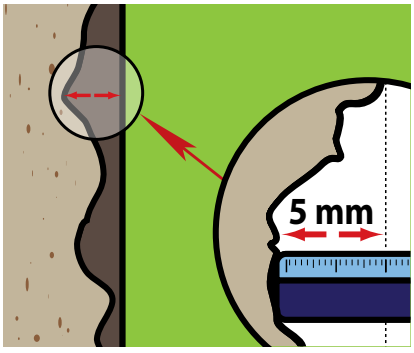
SUBSTRATE FLATNESS

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

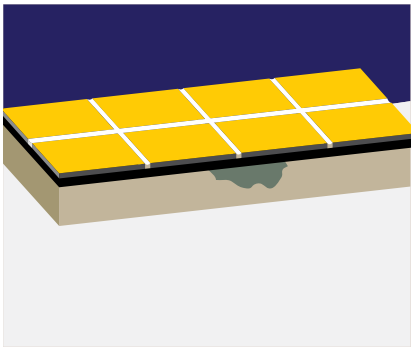
- The deepest point of the application surface in 2 m long straight gauge should not exceed 7 mm.



- 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.



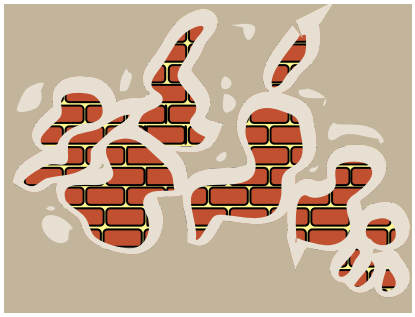
- For larger deviations, the surface should be smoothened with either surface repairing and smoothing plasters or leveling materials.
- Tile adhesives are not leveling materials. Thus, it is improper to use them for substrate smoothening and leveling purposes.



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.

■ The strength of the existing plaster or screed surface should be checked. For this, the entire surface should be examined with a hammer, etc., at different points.



■ 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. VitrA Fix FILM should be applied for increasing bondin adhesion.

In case of an existing covering;

■ Loose and bloated existing paint should be removed mechanically. Notching, sanding the surface using VitrA Fix FILM PLUS 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.

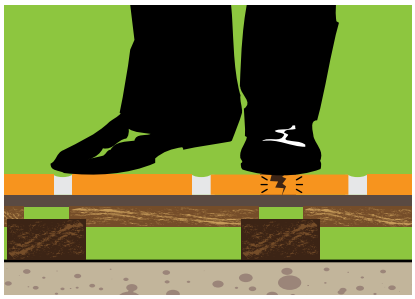
■ Adhesion and rigidity of the existing tile or PVC covering should be checked by tapping a hummer or scraper. Loose or poorly adhering covering should be removed and replaced by similar covering or the substrate should be reconstituted with a suitable repairing product.

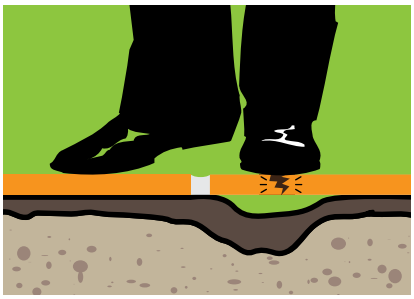
LEVELLING OF THE UNEVEN AND WEAK FLOOR SUBSTRATES

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

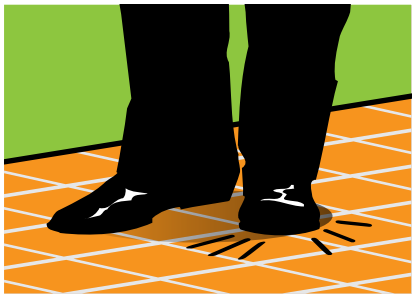
- Weak substrates may smash due to the applied heavy loads and vibration. This will cause the substrate to lose its load bearing capacity and adherence performance. Covering will disbond, deform or crack, when the substrate cannot bear the loads with sufficient strength.

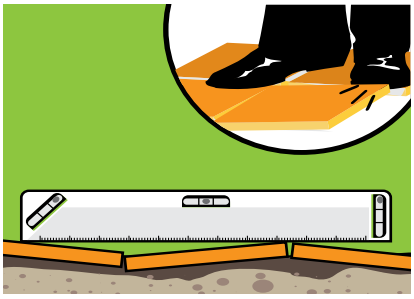
- Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.





- 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 smoothened and stabilized with either surface repairing and smoothing plasters or leveling compounds.

- Necessary expansion joints should be left considering the thermal stresses and mechanical loads (pedestrian traffic, additional loads) that may occur in the floors due to temperature changes. Suitable dilatation profiles or joint sealants should be used for these joints.

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 cementitous 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 absorbes the water fast (in 30-45 seconds), then the surface is segmented as high surface absorptive.
- Sealing with appropriate primers; the high absoptivity 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.

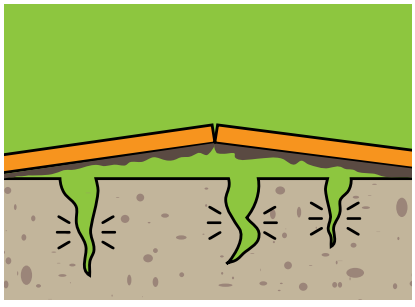
■ Primers are liquid and can be applied easily on the surface with a roller or brush. The surface should be completely sealed in one or two coats, forming pinhole free film coat.

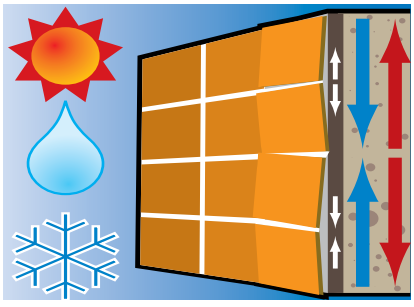
■ Adhesion and rigidity of the existing tile covering should be checked by tapping a hummer. Loose or poorly adhering covering should be removed and replaced by similar covering or the substrate should be reconstituted with a suitable repairing product. Before plastering onto existing tiles, surface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

FRESH SUBSTRATES

It should not be tiled onto new screed, plaster or concrete. Leave fresh substrate for at least 4-6 weeks to fully set, before substrate repairing, surface smoothening and tiling.

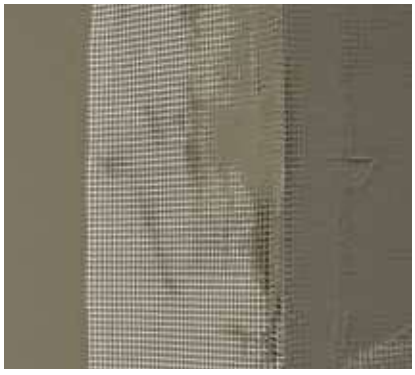
■ Curing time should be waited before application on exterior facade applications, exposed concrete and freshly plastered surfaces. Otherwise, mechanical movements (shrinkage shrinkage) that will occur in the concrete during the curing period on exterior facades may combine with the thermal movements (expansion-shrinkage) created by the external environment and create a risk in terms of adhesion of the coating material.





FLATTENNING OF THE DEFECTED SUBSTRATES

- 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.

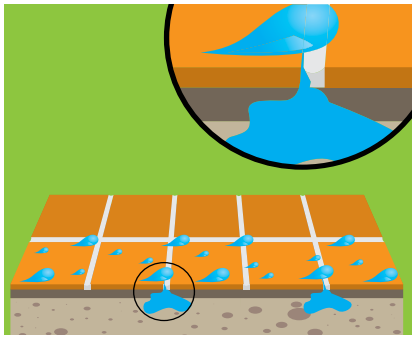


WATERPROOFING

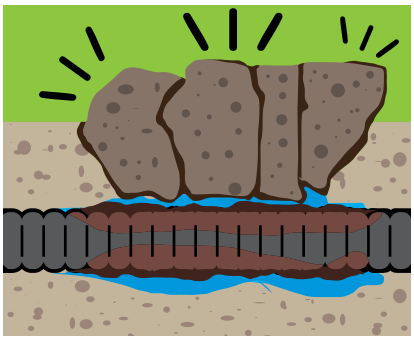
NECESSITY OF WATERPROOFING

Where it will be exposed to water effect such as wet areas, outdoor terraces and pools, the substrate should be coated with appropriate waterproofing materials

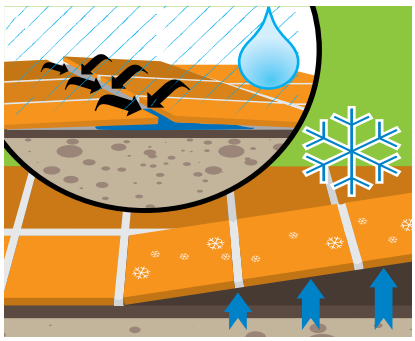
- The water may permeate through the pores or voids on the covering and joints into the adhesive and substrate. The water permeated by the substrate may encourage moisture and mould growth. The trapped water may seep through the substrate to lower floors in buildings and cause further problems.

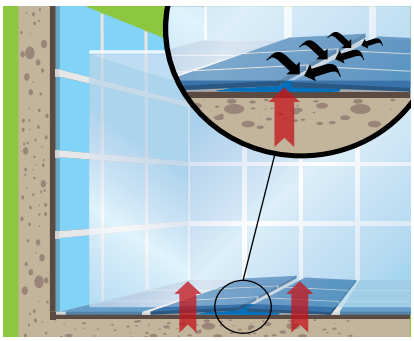


- If trapped water in the substrate runs to the concrete building structure and contacts with reinforcement elements, it will cause corrosion of the elements. Corrosion will cause volume expansion in the concrete and reinforcement causing internal stresses and cracks, thus resulting with a vulnerable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



- Pool and terraces; the water seeped under the covering may freeze in cold weathers due to hot-cold air exchange. This will cause volume expansion and tension under the covering. Tension may cause disbonding, cracking or deformations of the covering.





WATERPROOFING APPLICATION (AGAINST POSITIVE WATER PRESSURE)

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

- For application in wet areas (bathroom vb.) semi-elastic waterproofing 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.

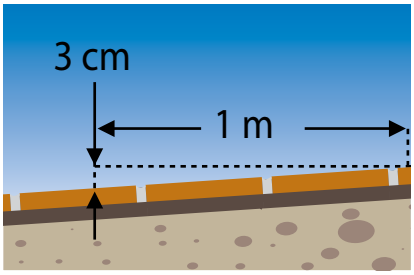
- Even though a waterproofing material is required to be flexible, its flexibility may not be sufficient to absorb the movements arising at the cold joints (internal corners) of the applied area. Reinforcement with flexible tape or alkali resistant reinforcement mesh should be performed in order to prevent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

- If the area subject to waterproofing will be exposed to continual water pressure (such as pools or water tanks) reinforcement of the waterproofing 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 waterproofing, 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.

- Waterproofing 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 waterproofing 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 minimum 3% along the direction of drain.



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

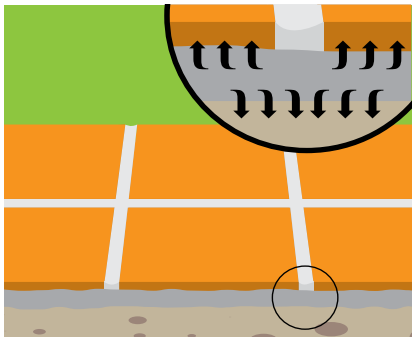
TILE FIXING

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:

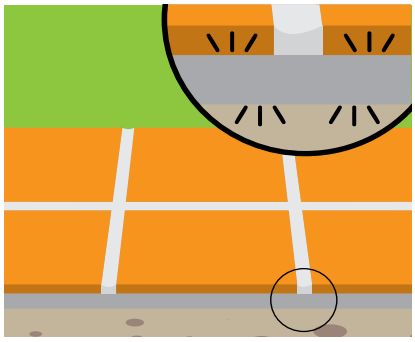
Mechanical bonding.

- 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.).



TS EN 12004-1 STANDARD

EN 12004-1 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 Reaction 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 the two performance classes according 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/mm²	≥ 1 N/mm²
Aging with heat	≥ 0,5 N/mm²	≥ 1 N/mm²
Aging with water	≥ 0,5 N/mm²	≥ 1 N/mm²
Freeze-thaw cycle	≥ 0,5 N/mm²	≥ 1 N/mm²
Open time (20 minutes)	≥ 0,5 N/mm²	≥ 0,5 N/mm²

Standard defines three optional characteristics for a class 1 or class 2 adhesive:

F Fast Setting

Tensile strength (max. 6 hours later) ≥ 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.

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:

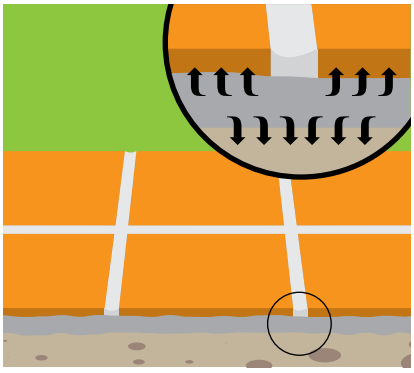
- High bonding performance (between the tile and the substrate).
- High deformability (the adhesive should absorb the stresses forming between the substrate and the tiling layer in fluctuating thermal conditions).
- Reduced water absorption (hydrophobic dispersion additives providing water repellency).

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).



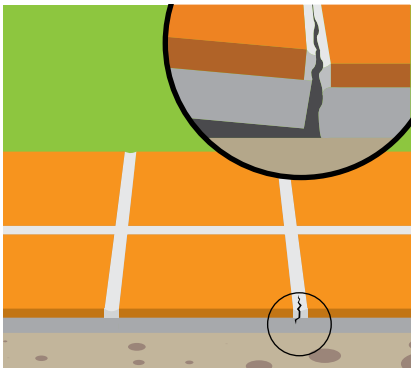
- When tiling is done with a standard performance adhesive onto an impervious substrate, the adherence is much weaker resulting in tiles de-bonding from the substrate.

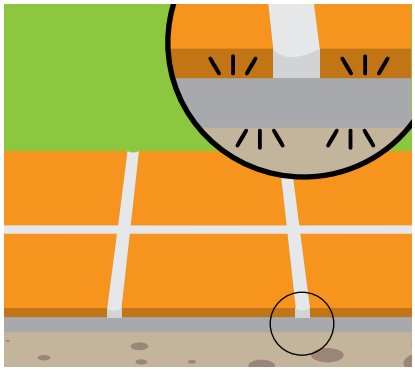
- When the covering materials has very low or no absorptivity (such as porcelain or glass), then the standard type adhesives cannot be absorbed into the material and there is no allowance for a mechanical bonding.

- 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 ≥ 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, pannel and plaster), wooden (board, pannel 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 absoptivity of surfaces should be reduced and balanced to enhance bonding capability of the substrate.

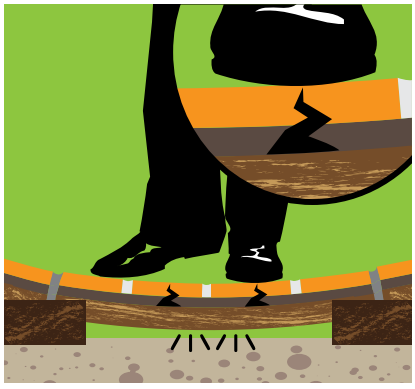
■ When tiling onto substrates with low porosity (water absorption rate < 3%), high performance adhesive should be chosen.

■ 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 pannels, 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, pannels laid on joists or battens should be reinforced and fixed to stabilize.

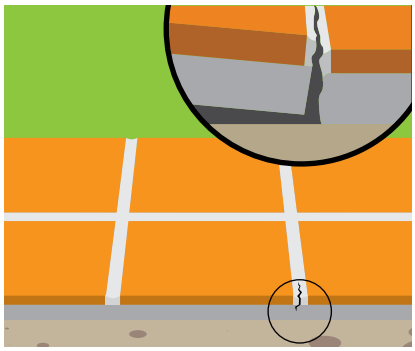
■ When tiling onto flexible substrates, covering and substrate should deflect in conformity according to the load applied. The adhesive should be flexible to absorb the amount of movement or in mismatch the tiles will either delaminate or crack.

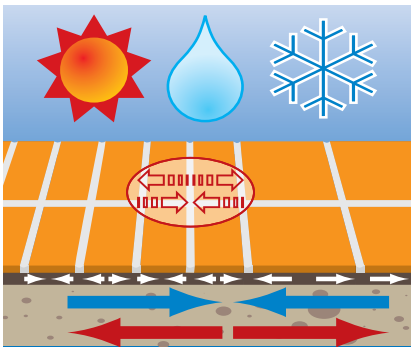


Covering material size and weight:

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.

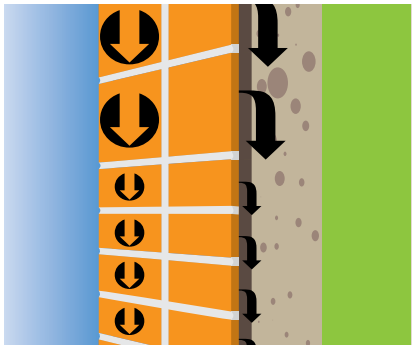
- Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).

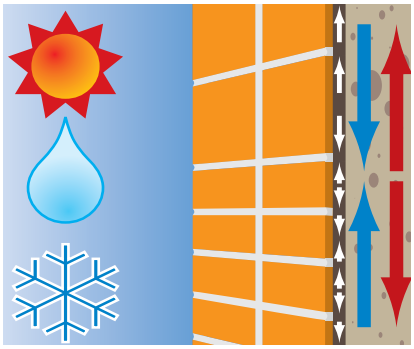


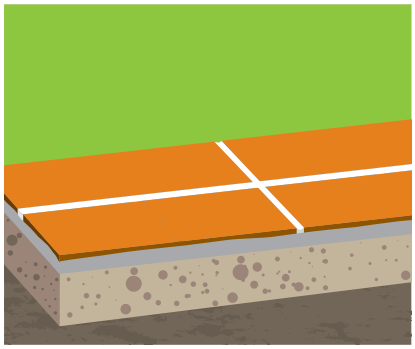


In vertical tiling applications, tile weight per m2 is critical.

- 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.





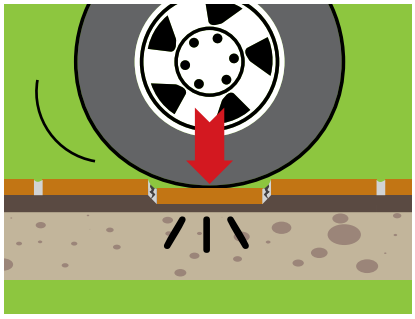


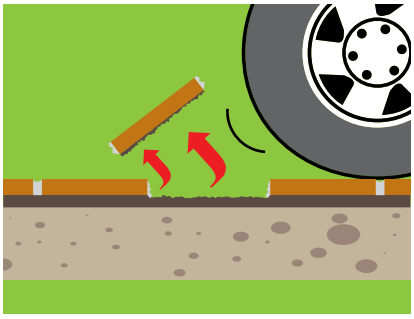
Area of use:

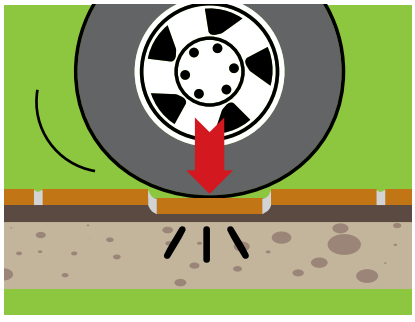
For areas exposed to light pedestrian traffic, standard performance adhesives provide the required technical performance

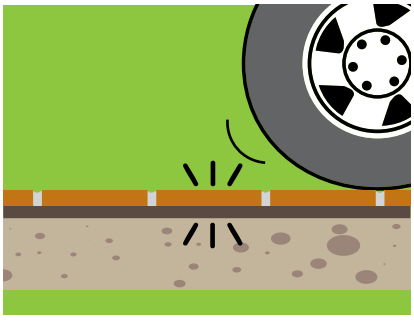
The floors of public places (hospitals, malls, public buildings) and industrial areas (factories, warehouses) are exposed to heavy loads such as pedestrian or vehicle traffic. Loads will create pressure and vibration on the covering.

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



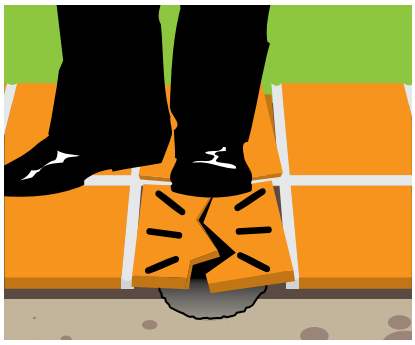


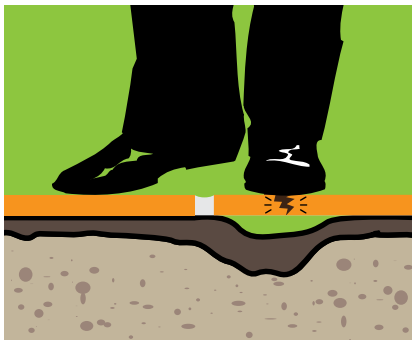




Any area of the tile that has no contact on the substrate and has voids is vulnerable when subjected to a localized load. These fragile points will let cracks and crashes of the covering.

■ For the tile to correspond the loading homogenously 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.





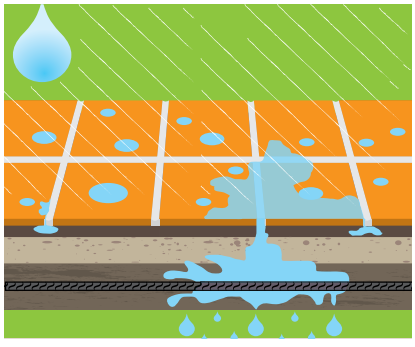
All substrates and covering systems will shrink and expand naturally due to temperature fluctuations and humidity. Particularly, when seasonal temperature changes are severe, shrinkage and expansion will exacerbate. In case of outdoor pool and terraces; the water seeped under the covering may freeze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

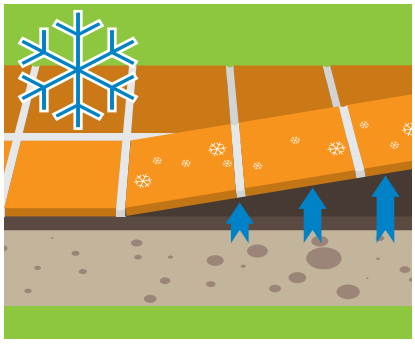
■ The adhesive should be flexible type to absorb the amount of movements with a high performance adhering ability. Additionally, the adhesive should have water repellent property in order to resist the corrosive effects of water.

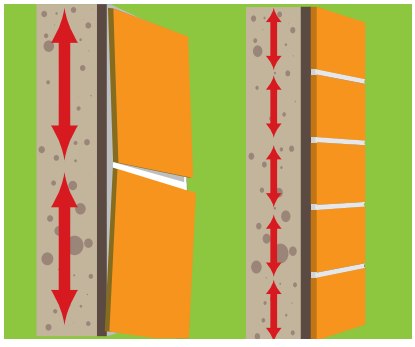
Coverings on external facades are subject to wind loads. The tiles are sucked outwards from its substrate with forces occurring due to the blowing of the wind with varying amplitude.

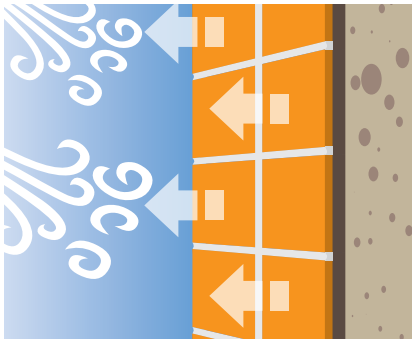
■ Deflection and the tension forming between the substrate and covering will be exacerbated across each tile's width for large tiles when wind loads and thermal loads are subjected.

■ 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.





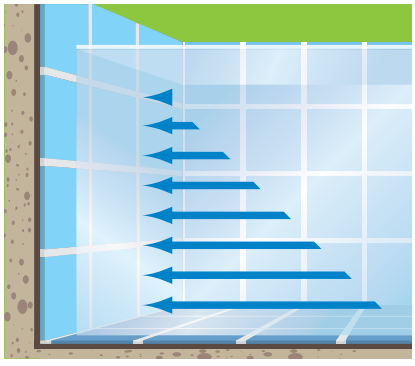


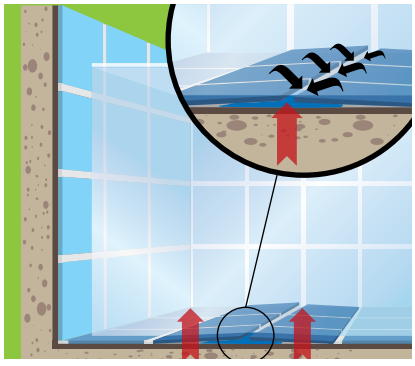


In pools and water tanks movements occur due to water pressure varying with weight water.

■ 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.

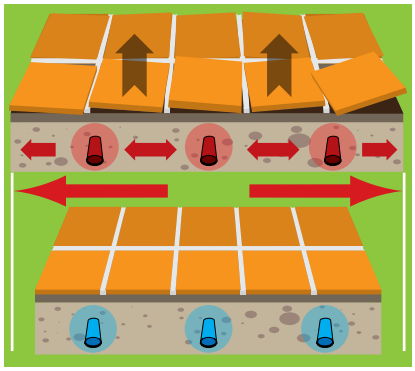
■ The bonding strength of the adhesive must not be affected by the movements caused by opposite forces. High performance, flexible and water resistant adhesives should be selected particularly developed for pool tiling.

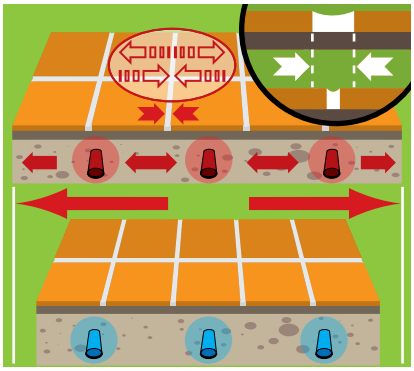




Tiling onto under floor heated systems; the tiles usually have a lower coefficient of thermal expansion. For a given temperature rise tiles will expand less than the substrate and stresses will be formed at the interface between the tile and the adhesive. At weak bonded parts, the tiles may delaminate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

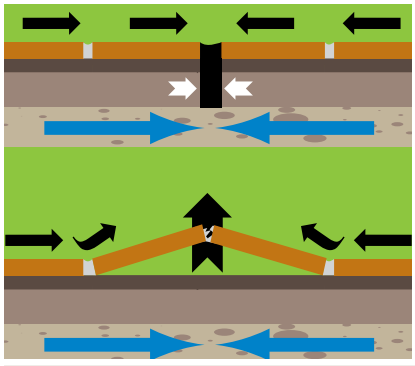
In case of renovation and repair works, tiling may be aimed to be completed in fast.

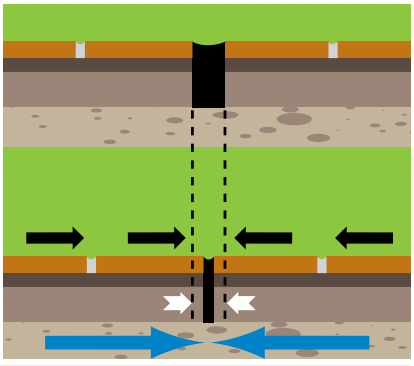
- Fast setting adhesives provide set times as low as 3 hours compared minimum set time of 24 hours in regular adhesives.
- The adhesive performance class should be chosen according to the tile format and technical requirements.

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 joins 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. Cementitous joint fillers are not appropriate for expansion joints.

- 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.
- 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 x4 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.
- 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. Cementitous joint fillers are not appropriate for expansion joints.

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.

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 6-8kg	Single Bonding Double Bonding

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 > 40x40 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. (Consumption increases by 30-40%)

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 reapplied.

- 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 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 sunlight, 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

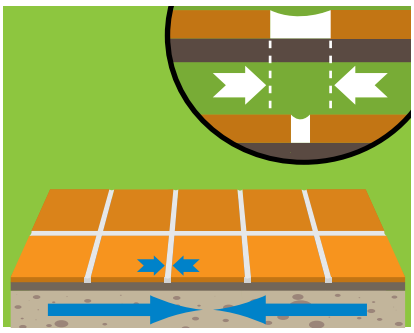
JOINT FILLER APPLICATION

FUNCTIONS OF A JONT FILLER

The joint filler used in filling tile joints has mainly two distinct functions:

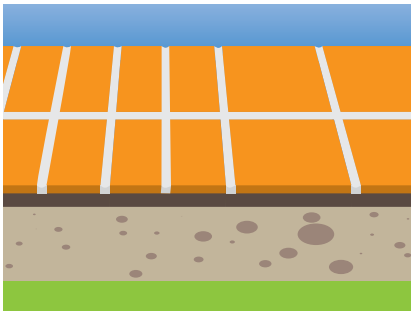
Physical function.

- 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 joint fillers provide decorative fertility.



EN 13888 STANDARD

EN 13888 Standard identifies the test and performance criteria to classify the joint fillers used in filling tile joints. According to the standard, the joint fillers 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 joint filler is mixed with a specific amount of water or some other liquid to use.

RG Reactive Resin Based

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

The joint filler 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 joint filler. It validates the minimum required performance level in tests.

It is suitable for standard applications requiring no special performance.

Class 2

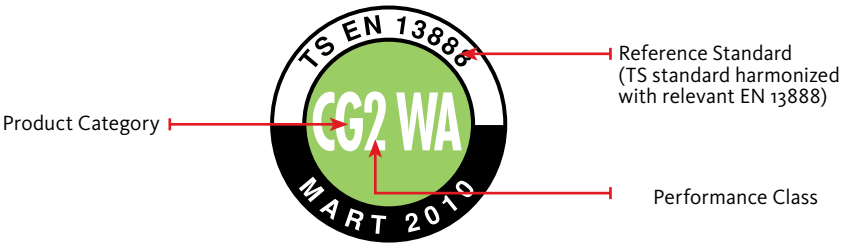
(Improved) High Performance joint filler. It validates higher performance levels in comparison to standard performance adhesives.

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 mm³
Bending strength	: ≥ 2,5 MPa (N/mm²)
Bending strength (freeze-thaw cycle)	: ≥ 2,5 MPa (N/mm²)
Compressive strength	: ≥ 15 MPa (N/mm²)
Compressive strength (freeze-thaw cycle)	: ≥ 15 MPa (N/mm²)
Shrinkage	: ≤ 3 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 mm³
Water absorption (after 30 minutes)	: ≤ 2 gr
Water absorption (after 240 minutes)	: ≤ 5 gr

Technical Performance Requirements	RG
Abrasion resistance	: ≤ 250 mm3
Bending strength	: ≥ 30 MPa (N/mm²)
Compressive strength	: ≥ 45 MPa (N/mm²)
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 joint filler when it is wet, during application and before it hardens:

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

Below are the features of a joint filler after it hardens and completes its curing:

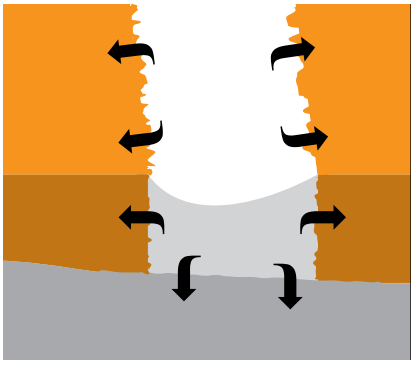
- High bonding performance (on the tile and the substrate).
- High deformability (the joint filler should absorb the stresses and compensate the movements forming between the substrate and the tiling layer in fluctuating thermal conditions).
- Reduced water absorption (water repellent feature and better 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

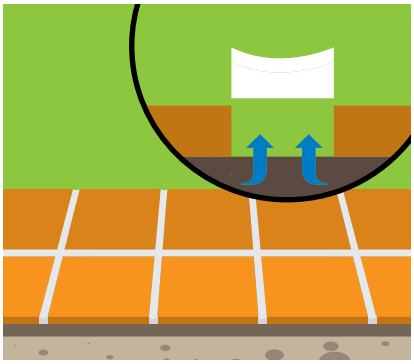
Surface absorptivity of the tile (water permeability):

When the joint filler 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 joint filler sets in those pores, resulting in a mechanical keying action to bond.

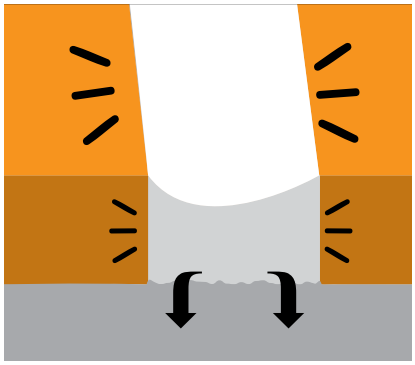
- Tiles with different formats such as glass, marble, ceramic or porcelain may have different surface absorptivities (water permeability).



- Bonding of the joint filler 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.



- Indoors, tiles, floor tiles, etc. with a water absorption rate greater than 3%. Standard performance joint filler is sufficient for coating materials. (VitrA Fix 1-6) Porcelain ceramics with low water absorption rate, etc., in harsh conditions, outdoors, on floors exposed to heavy pedestrian traffic. High performance joint fillers should be preferred in coating materials.
- 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:

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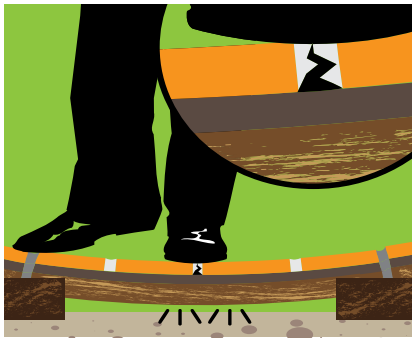
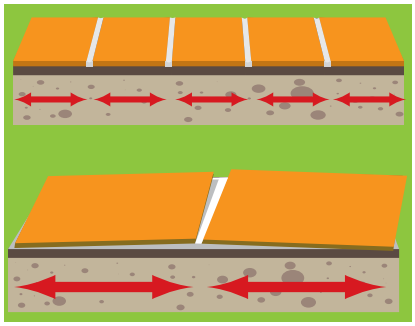
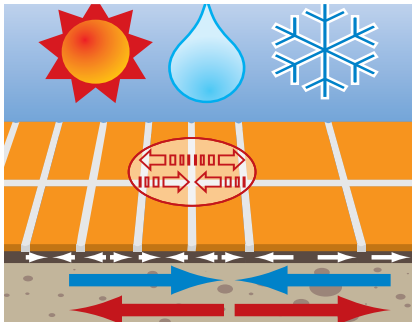


Covering material size and weight:

- 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 (>40x40 cm) tiles, flexible tile grouts with high performance should be selected to maintain required flexibility to absorb the tension and movement between the tiles.

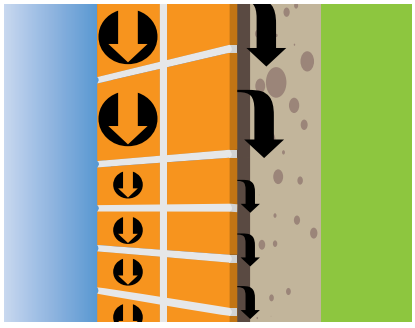


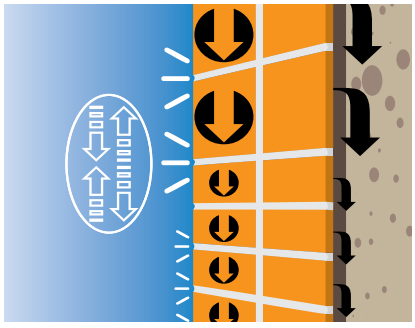


In vertical tiling applications, tile weight per m2 is critical.

- 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.



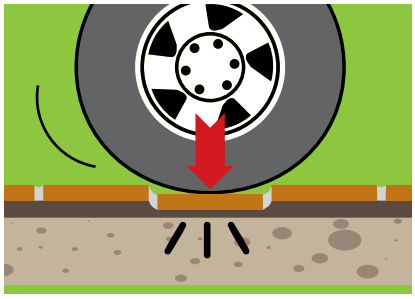


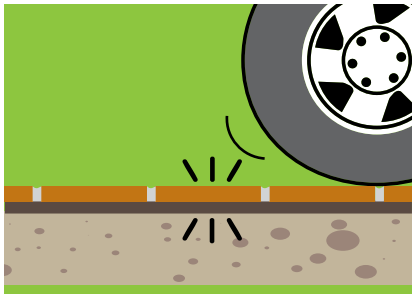
Area of use:

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.

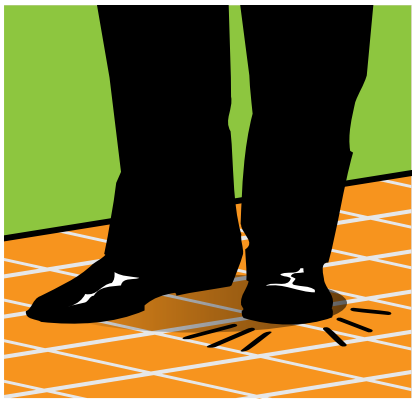


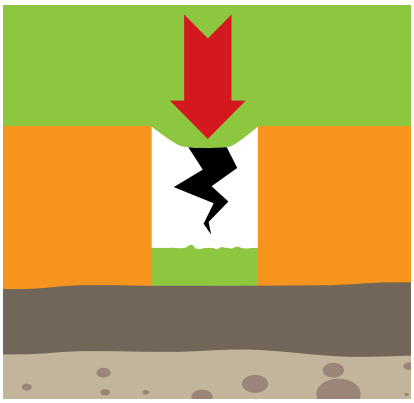


JOINT FILLER APPLICATION

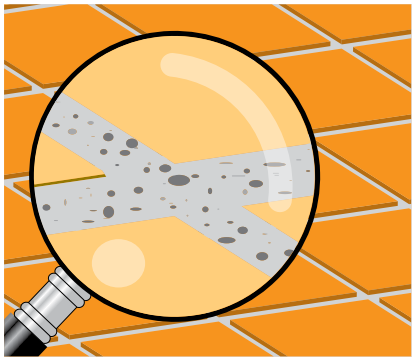
Any area of the tile grout that has no contact on the substrate and has voids under is vulnerable when subjected to a localized load. These fragile points will let cracks.

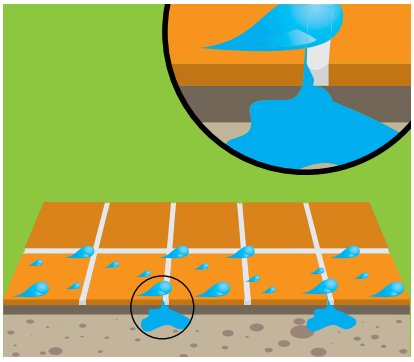
- For the tile grout to correspond the loading homogenously on all along covering area, full filling of the grout joint is required.





- 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.



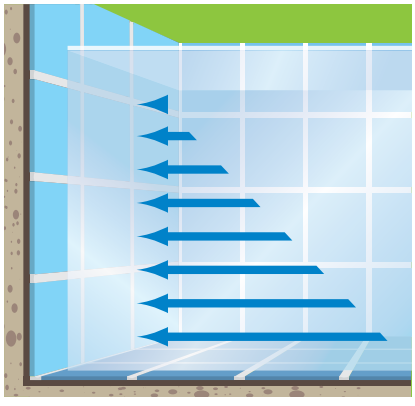


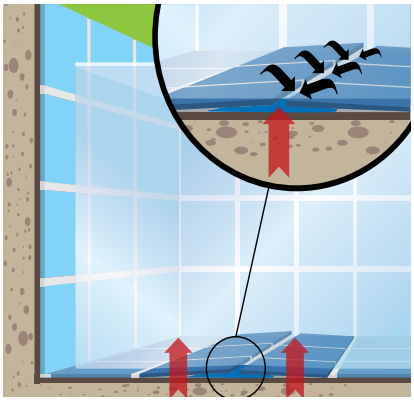
In case of outdoor pool, terrace, balcony and facade tiling; all substrates and covering systems will shrink and expand naturally due to temperature fluctuations and humidity. Particularly, when seasonal temperature changes are severe, shrinkage and expansion will exacerbate. Tile grouts in such applications 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. 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.



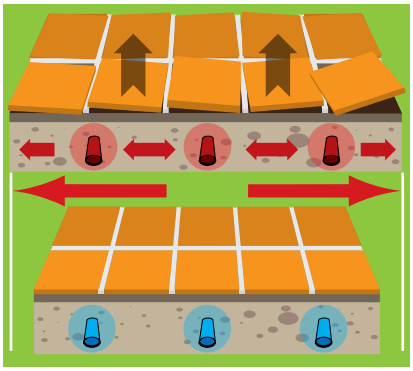


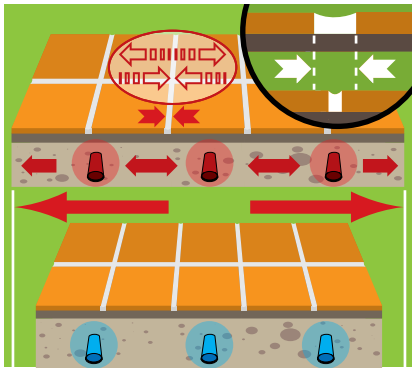
- Tile grouts particularly developed for pool tiling with high performance, flexibility, water repellency and resistance to pool cleaning chemicals should be selected in pool tiling.

- Epoxy resin based joint fillers 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 in the pools of industrial facilities (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. (VitrA Fix FLEX)





APPLICATION (CG CLASS – SINGLE COMPONENT / CEMENT BASED)

Surface preparation:

- Joint filler should start after the adhesive has set and dried. Instructions of the adhesive producer should be followed. Joint filler'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 joint filler 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 sunlight 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 joint filler:

CG class - cement based powder joint filler 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 joint filler in the joints completely with a suitable squeegee or a rubber float leaving no voids.

- Remove the excess joint filler immediately using a rubber float moved diagonally (at 45°) across the tiles before it hardens.
- If moved parallel to the tiles the joint filler 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 joint filler.

Cleaning:

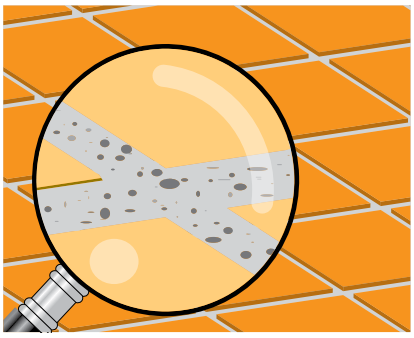
Time for cleaning the excess joint filler from tile surface is when the grout has started to dry.

- 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 joint filler. When the material slightly gets on the finger, cleaning phase should start immediately.

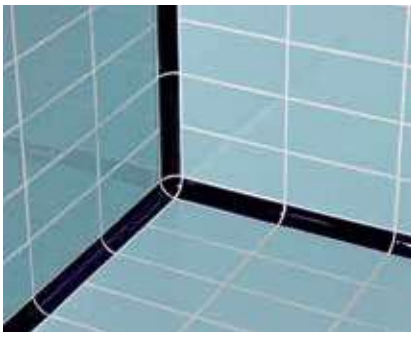
- To clean the tiles use a dampened cleaning pad or sponge. Use only clean and non-chalky water to dampen the pad or sponge.

- 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 joint filler residues should be done when dry (in 1 day at a 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.

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

Mixing of the joint filler:

RG class – epoxy resin based joint filler 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.

JOINT FILLER APPLICATION

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

- 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.

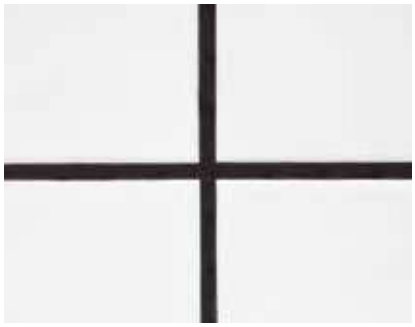
PRECAUTIONS

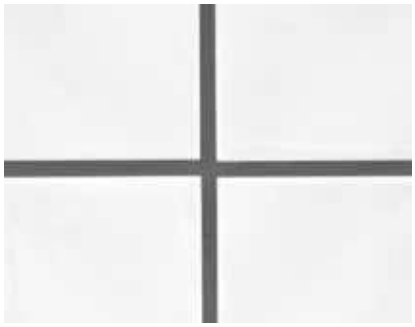
Jointed surfaces must be protected for at least 24 hours from direct sunlight, frost and rain.

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

Joint fillers contain colour pigments which activate with mixing.

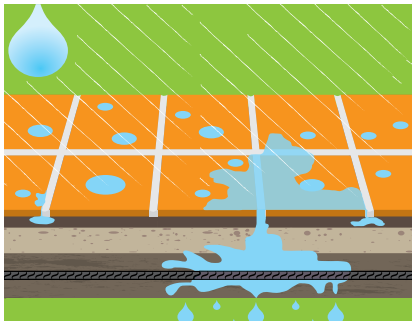
■ For powder (cement based) joint fillers; the colour of the powder form may be in very light colours than the expected final colour.

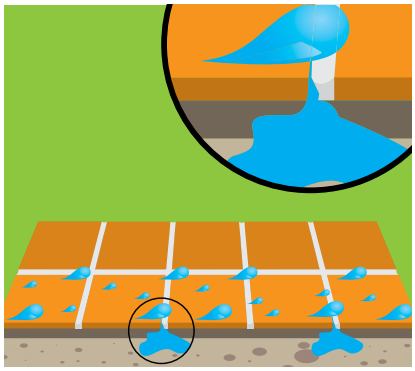




Before tiling applications in industrial floors, auto services, food factories and etc. the acid and alkali content of the conditions the covering will be exposed to should be determined thoroughly. The chemicals contacting with tile grouts may have hazardous effect, and a pre-testing of grout resistant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



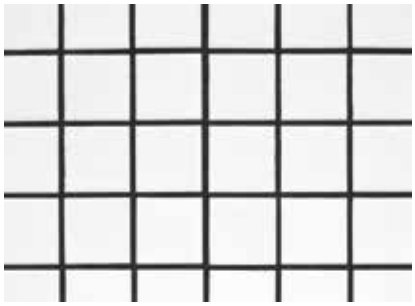


Necessary expansion joints should be left considering the thermal stresses and mechanical loads (pedestrian traffic, additional loads) that may occur in the floors due to temperature changes. Suitable dilatation profiles or joint sealants should be used for these joints.

Efflorescence effect:

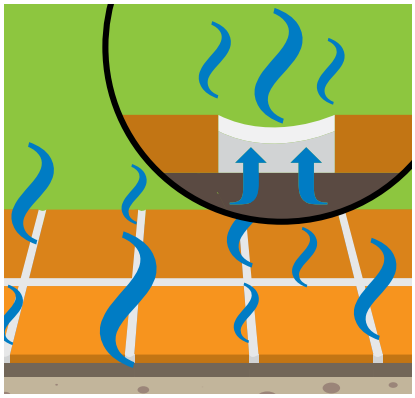
In case of a false grouting application of the cement based joint filler, discrete holes and grains on grout surface, and surface discolouration and variation which will be more noticable with darker grouting colours will form.

- 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 joint filler 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.



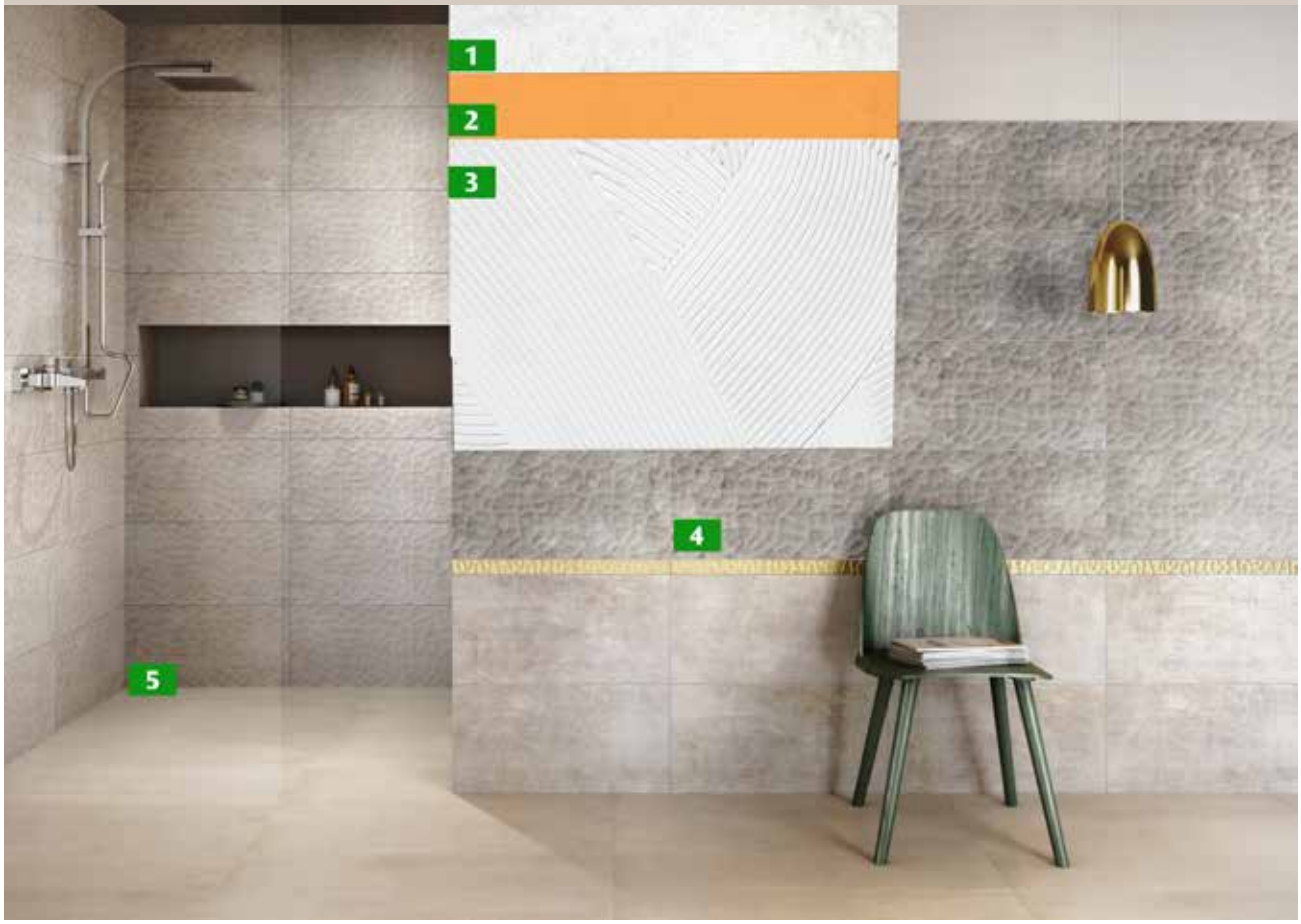
JOINT FILLER APPLICATION

SOLUTION SUGGESTIONS

SOLUTION HOUSE

SOLUTION HOUSE

TILE APPLICATION ON GYPSUM PANEL OR GYPSUM PLASTER



1 Gypsum Panel

2 VitrA Fix FILM

3 VitrA Fix HP / FLEX PORSELEN

4 VitrA Fix FLEX 0-5 or 2-12

5 VitrA Fix SM 910

TILE APPLICATION ON UNDERFLOOR HEATING FLOORS

SOLUTION SUGGESTIONS

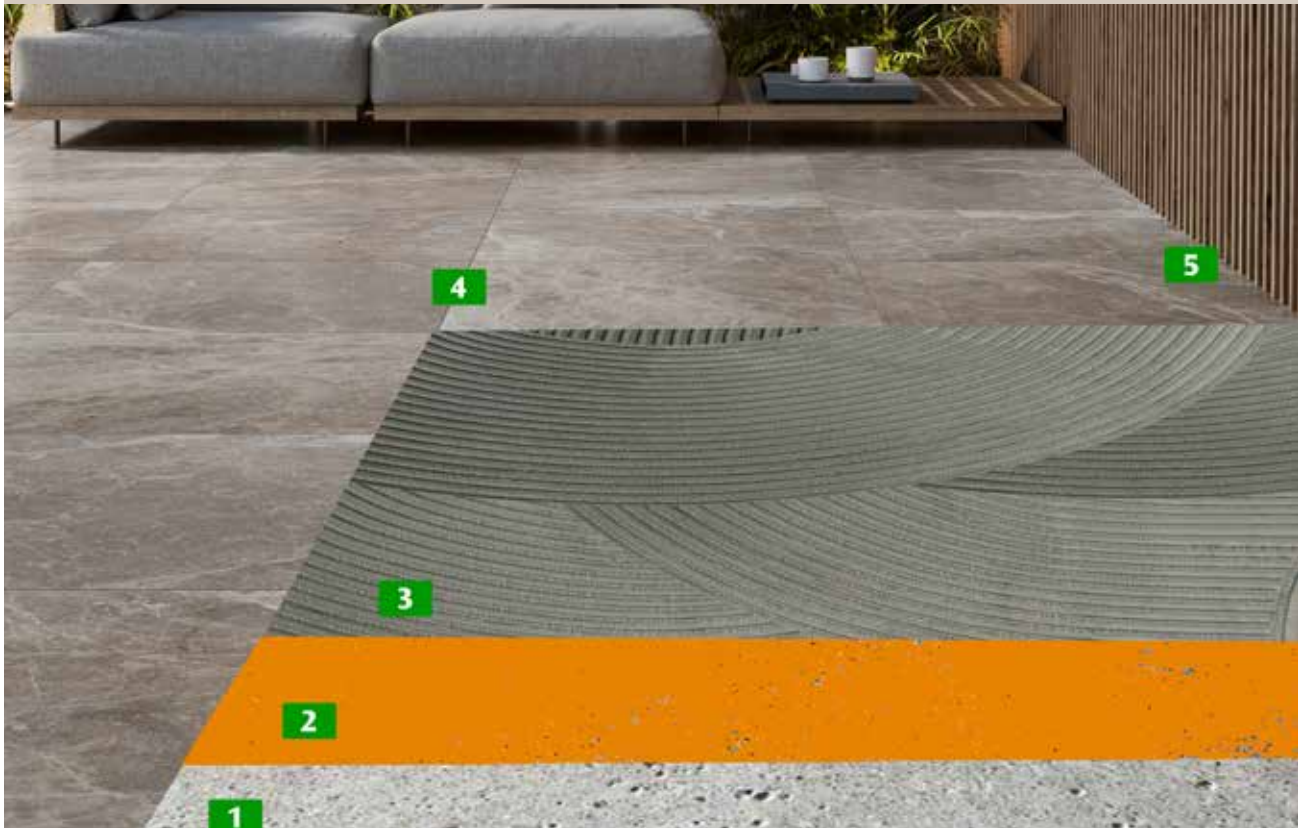
1 VitrA Fix S30

2 VitrA Fix FLEXY PLUS / FLEX PORSELEN

3 VitrA Fix FLEX 0-5 or 2-12

4 VitrA Fix PU SEALANT

LARGE SIZE TILE APPLICATION ON THE FLOOR



1 Concrete Floor

2 VitrA Fix FILM

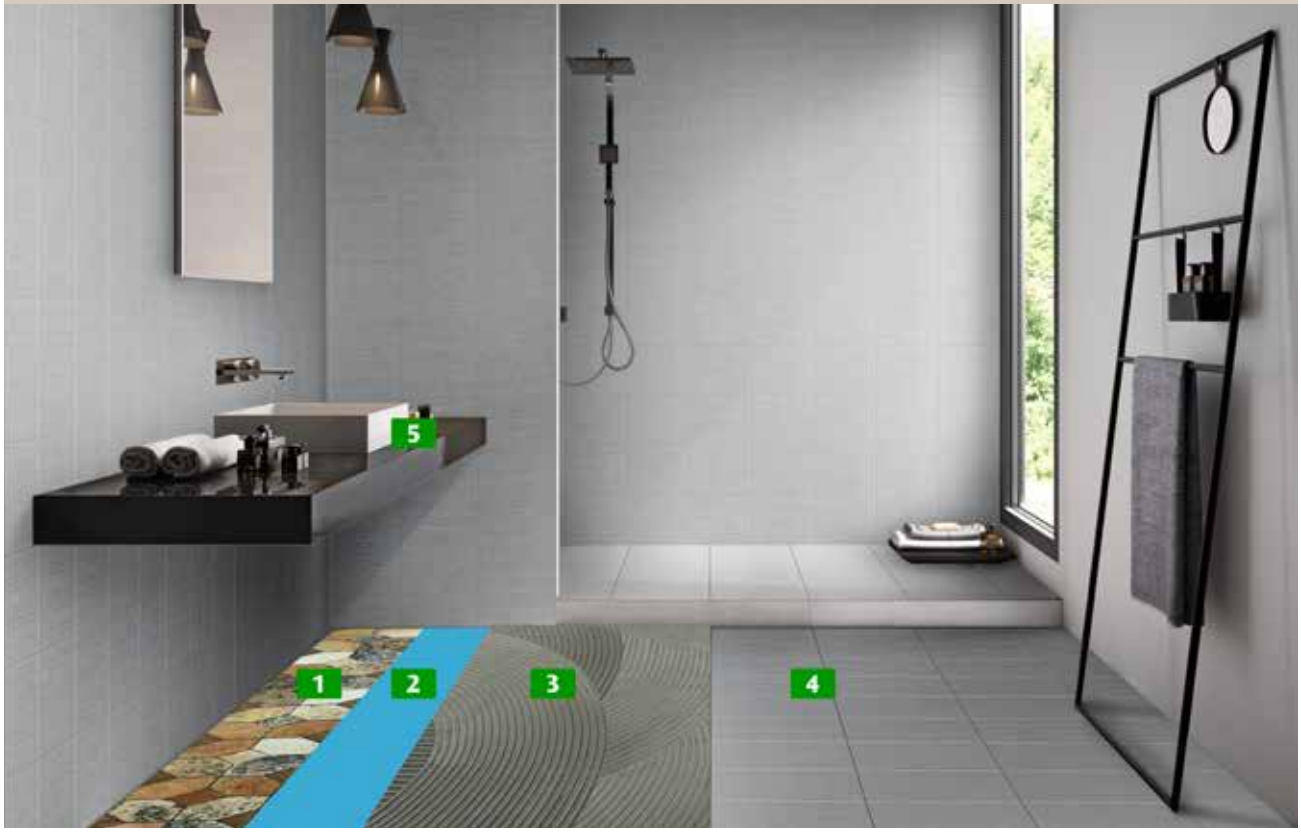
3 VitrA Fix FLOOR PLUS

- 100% covers the back of the tile
- Same day joint application
- Consumption savings

4 VitrA Fix FLEX 0-5 or 2-12

5 VitrA Fix PU SELANT

TILE APPLICATION ON OLD TILE



1 Old Tile

2 VitrA Fix FILM PLUS

3 VitrA Fix FLEX PORSELEN

4 VitrA Fix FLEX 0-5 or 2-12

5 VitrA Fix SM 910

SOLUTION SUGGESTIONS

SOLUTION SUGGESTIONS

WATERPROOFING AND TILE APPLICATION IN BATHROOMS

1 Concrete Floor

2 VitrA Fix RM 20

3 VitrA Fix FILM

4 - 6 VitrA Fix PROOF S

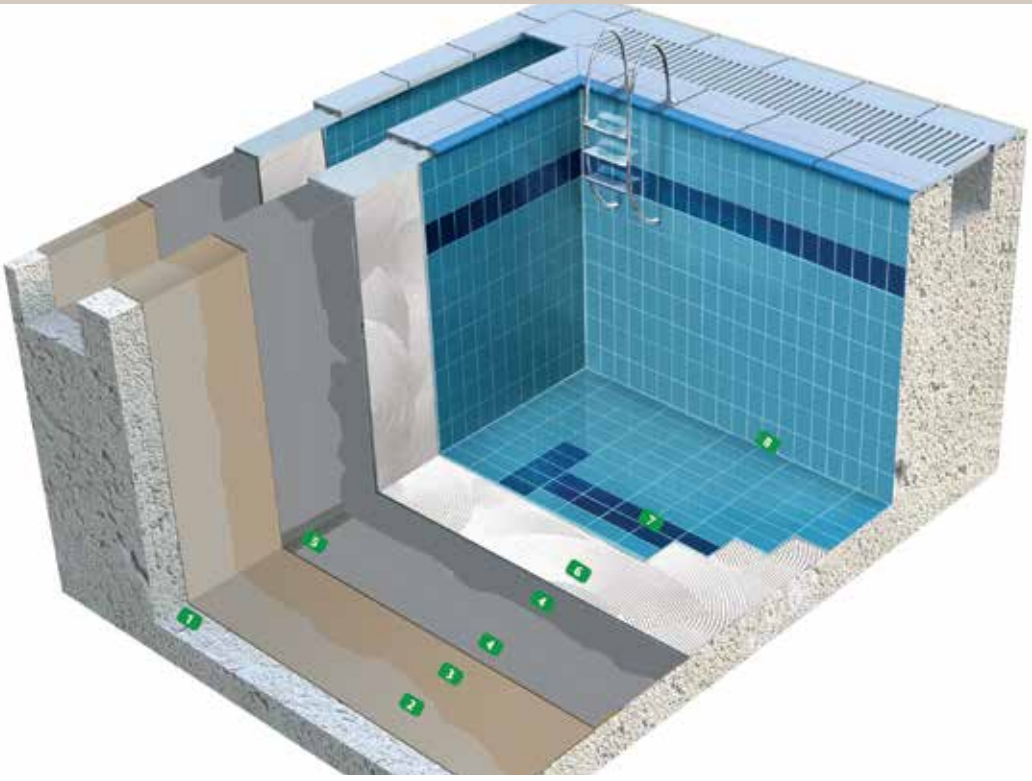
5 VitrA Fix TPE

7 VitrA Fix FLEXY/FIXER

8 VitrA Fix FLEX 0-5 or 2-12

9 VitrA Fix SM 910

WATERPROOFING AND TILE APPLICATION IN POOLS



SOLUTION SUGGESTIONS

1 Concrete Floor

2 VitrA Fix RM 20

3 VitrA Fix FILM

4 VitrA Fix PROOF / PROOF F

5 VitrA Fix TPE

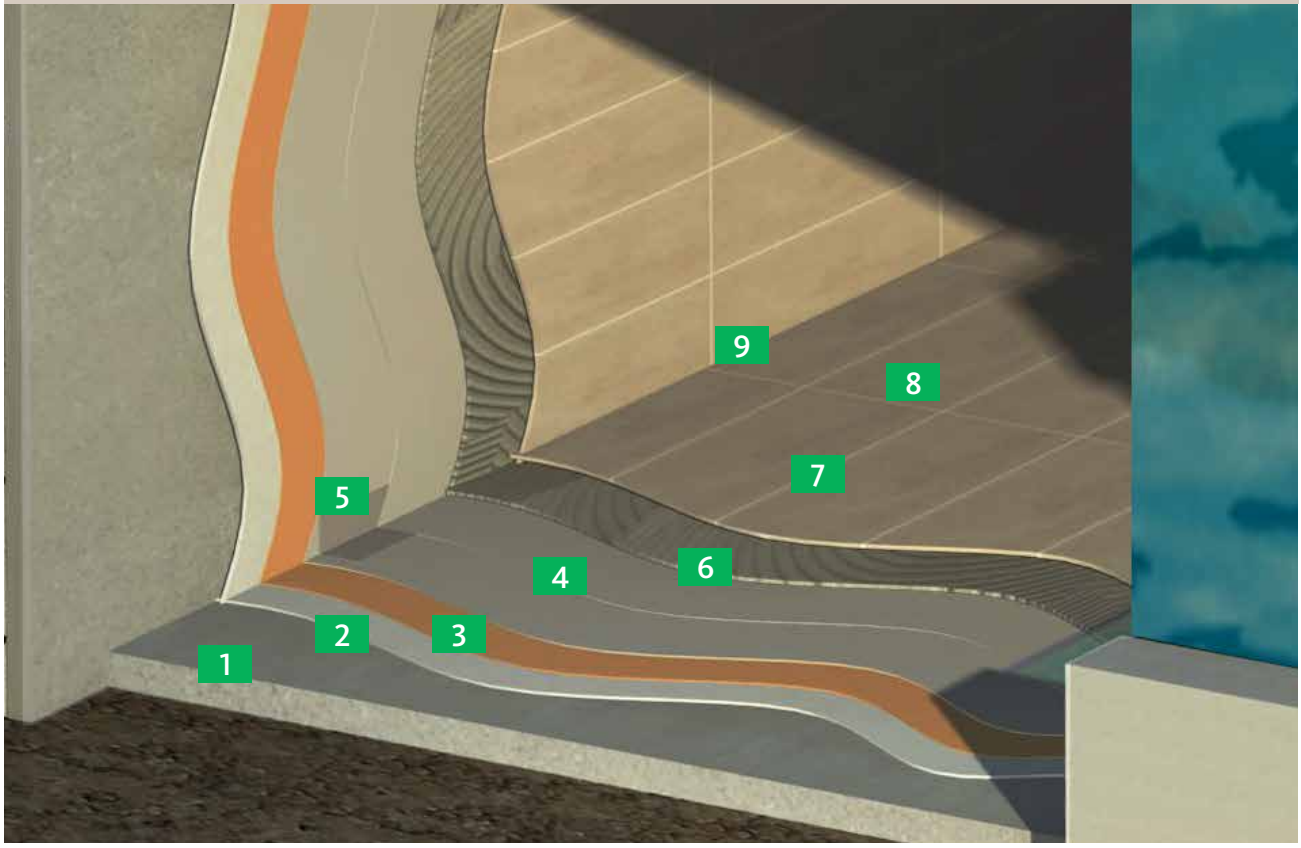
6 VitrA Fix POOL

7 VitrA Fix POOL G 2-10

8 VitrA Fix PU SEALANT

SOLUTION SUGGESTIONS

WATERPROOFING AND CERAMIC APPLICATION IN WATER TANKS



1 SURFACE PLASTER

5 VitrA Fix TPE

2 VitrA Fix RM 20

3 VitrA Fix FILM

4 VitrA Fix PROOF F

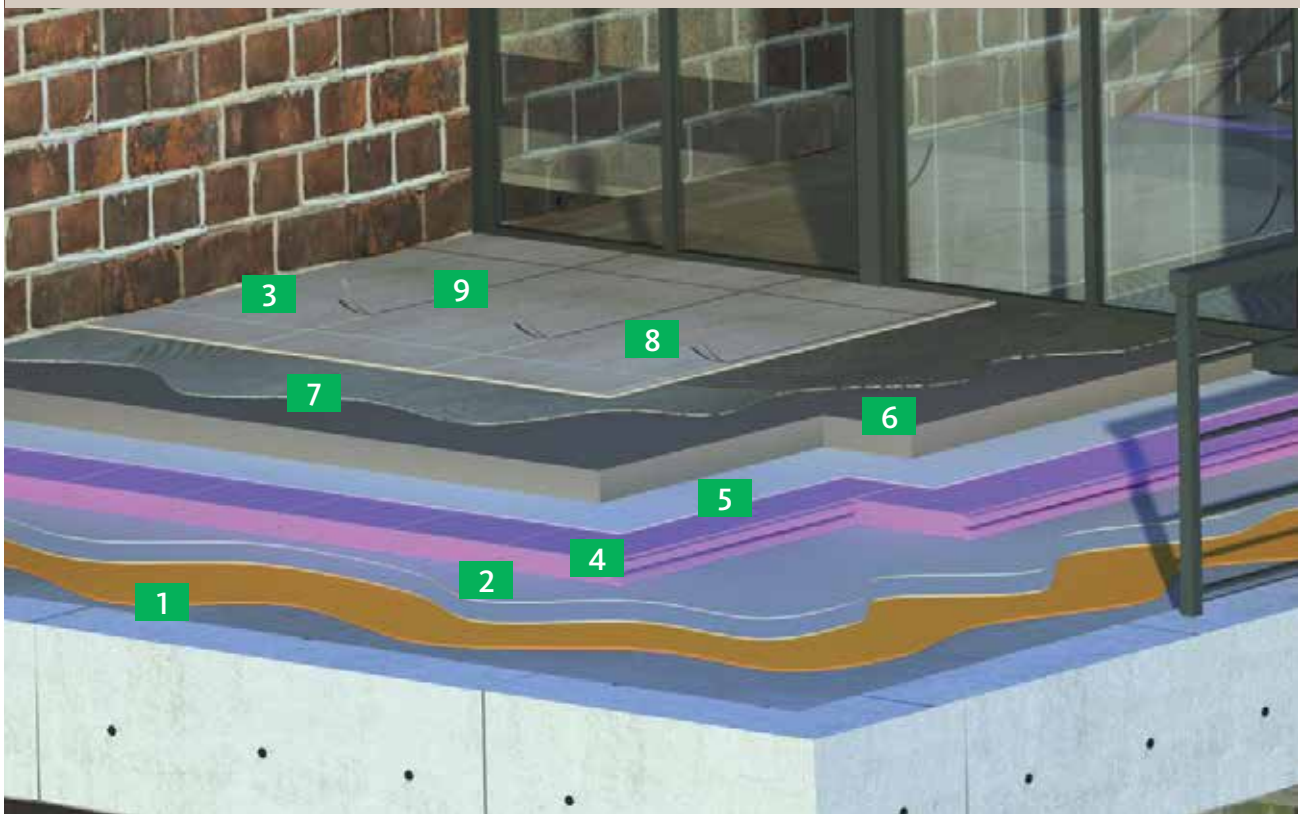
6 VitrA Fix POOL

7 VitrA Fix EPOXY ULTRA
VitrA Fix POOL G 2-10

8 VitrA Fix NET

9 VitrA Fix PU SEALANT

CERAMIC APPLICATION ON BALCONIES



1 VitrA Fix FILM

2 VitrA Fix PROOF

3 VitrA Fix TPE

4 XPS - THERMAL INSULATION BOARD

5 PROTECTION FELT

6 SLOPE CONCRETE

7 VitrA Fix FLEX PORSELEN

8 VitrA Fix FLEX 0-5 / VitrA Fix FLEX 2-12

9 VitrA Fix PU SEALANT

SOLUTION SUGGESTIONS

WOOD - METAL SURFACE APPLICATION

1 **WOOD-METAL SURFACE**

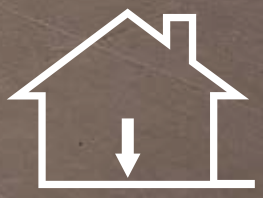
2 **VitrA Fix PurLaM**

3 **VitrA Fix EPOXY ULTRA / VitrA Fix PU SEALANT**


VitrA
FLEX PORSELEN
ELASTİK PORSELEN KARO YAPIŞTIRICISI
FLEXIBLE PORCELAIN TILE ADHESIVE
MORTIER COLLE À HAUTE PERFORMANCE À BASE DU CIMENT
Высокоэффективный клеевой состав
для фарфоровой плитки
FIX
250
VitrA
FIX
C2TE S1
CE
VitrA
LATEX
VitrA FIX

APPLICATION FEATURES ICONS

Ideal for INDOOR FLOOR applications

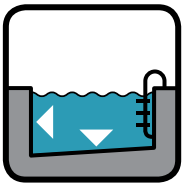


Ideal for OUTDOOR FLOOR applications

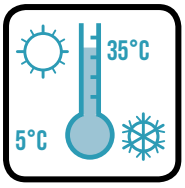
Ideal for INDOOR WALL applications

Ideal for OUTDOOR WALL applications

APPLICATION FEATURES ICONS


Water Pressure Resistance

Oversized Tile



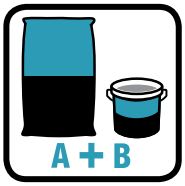
Application Temperature

UV Resistance


Waterproof


Hygienic


Joint Width



Two Components


Application with Brush-Roller


Pot Life


Work Duration


2-Layer Application


Water Resistance

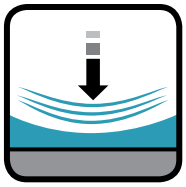
Surface Inspection


Crack Bridging

Application Method


Heavy Load Traffic


Homogeneous Mixture


Very Flexible

VitrA Fix FIXER

Cement-based, non-slip, non-slip tile-ceramic adhesive mortar with extended working time

DESCRIPTION

Cement based ceramic tile adhesive used for bonding small and medium sized ceramic tiles to walls and floors.

AREAS OF USE

- Adhering ceramic, glass mosaic, natural stone etc. coating materials to walls and floors in interior spaces,
- In wet areas such as bathrooms and kitchens,
- Ideal for applications on cement based surfaces such as concrete, plaster, screed etc.

FEATURES

Material structure: High quality cement, contains additives to facilitate application.

Type	: Powder
Color	: Gray / white
Density	: 1.3 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Tensile bond strength	
- initial (after 28 days)	: ≥ 0.5 MPa (N/mm²)
- after heat aging	: ≥ 0.5 MPa (N/mm²)
- after aging with water	: ≥ 0.5 MPa (N/mm²)
- after freeze thaw cycle	: ≥ 0.5 MPa (N/mm²)
- open holding time (after 30 min.)	: ≥ 0.5 MPa (N/mm²)
Slip	: ≤ 0.5 mm
Reaction to fire class	: A1 (TS EN 13501 - 1)
Temperature resistance	: -30 °C - +70 °C

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / C1TE class.
- CE

CONSUMPTION

Approx. 3-5 kg/m² may vary depending on the application surface, tile size and comb size used.

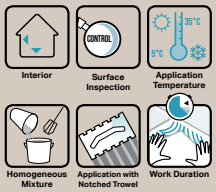
PACKAGING

In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Possibility to lay ceramic tiles from top to bottom without slipping
- Strong adhesion performance
- Facilitating labor with long working hours
- Easy troweling



VitrA Fix FIXER

APPLICATION FEATURES

Mixing ratio	: 5.5-6.5 liters of water for 25 kg of powder product
Working and tile correction time	: 30 minutes
Time to use the mixture	: 3 hours (pot life)
Application temperature	: +5 °C - +35 °C
Opening time for pedestrian traffic	: minimum 24 hours after
Jointing time	: minimum after 24 hours

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or gloss of the surface should be removed by scraping, etc. before application.
- On surfaces with high absorbency, the surface should be primed with **VitrA Fix FILM** before application.
- Glossy surfaces such as ceramic, exposed concrete etc. should be primed with VitrA Film Plus or **VitrA Film Plus Beton** before application.
- On surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method before application.
- Surface defects, cracks and holes should be corrected and repaired with **Vitra Fix RM** repair mortars or **VitrA Fix S 30** leveling screeds. Surface corrections up to 5 mm vertically and 7 mm horizontally can be made with **VitrA Fix FIXER.**

APPLICATION

- Slowly add 25 kg **VitrA Fix FIXER** to 5,5-6,5 (22-26%) clean water and mix until the mixture is homogeneous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and mix again for 1-2 minutes and then apply.
- **VitrA Fix FIXER**, which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed to the desired tooth thickness.
- For coating materials larger than 40x40 cm, combined bonding method (adhesive application both on the surface and on the back of the ceramic) should be used. Consumption may increase by approximately 30-50%.
- When laying transparent or light-colored natural stones, a preliminary test should be made in case of the risk of stains and shadows appearing on the surface and **VitrA Fix FIXER** in white color should be used in case of shadows.
- When laying backing materials with nails, it is necessary to apply adhesive until the nail depth is filled.
- - In order for the adhesion to be strong and for the adhesive to fully spread and adhere to the back of the tile, the tile should be lightly rammed with a rubber mallet.
- - Joint filling should be started at least 24 hours after the bonding process.

APPLICATION SURFACES

Suitable for use on cement based plaster and screed surfaces, concrete floors.

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered or concrete surfaces (horizontal and vertical) before the curing time is completed.
- The open time of **VitrA Fix FIXER** is 30 minutes. However, in unsuitable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with your fingers in case of premature drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Under low temperature and high humidity conditions, the drying time may be prolonged.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLEXY

Cement based, high performance, non-slip adhesive mortar

TS EN 12004-1 C2T NİSAN 2017

DESCRIPTION

Cement based, high performance porcelain tile adhesive with high adhesion strength, used for bonding porcelain tiles, granite, ceramic tiles, natural limestone, travertine, marble, cotto tiles, bricks and glass mosaics to walls and floors.

AREAS OF USE

- For bonding porcelain ceramic, granite ceramic, natural stone, ceramic, cotto, marble etc. coating materials,
- For indoor and outdoor applications on cement based surfaces such as concrete, plaster, screed etc,
- Ceramic, marble on ceramic applications

FEATURES

Material structure: High quality cement, special additives for strength, thick fillers and binders.

Type	: Powder
Color	: Grey/white
Density	: 1.3 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Tensile bond strength	
- initial (after 28 days)	: ≥ 1.0 MPa (N/mm²)
- after heat aging	: ≥ 1.0 MPa (N/mm²)
- after aging with water	: ≥ 1.0 MPa (N/mm²)
- after freeze thaw cycle	: ≥ 1.0 MPa (N/mm²)
- open holding time (after 20 min.)	: ≥ 0.5 MPa (N/mm²)
Shear	: ≤ 0.5 mm
Flexibility	: medium
Temperature resistance	: -30 °C - +70 °C
Reaction to fire class	: A1 (TS EN 13501 - 1)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / C2T class.
- CE

CONSUMPTION

Average 3-6 kg/m² may vary depending on the application surface, tile size and comb size used.

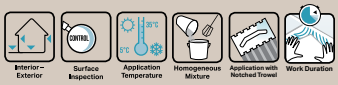
PACKAGING

In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Possibility to lay ceramic tiles from top to bottom without slipping
- Strong adhesion performance
- Easy troweling
- Ceramic on ceramic applications



VitrA Fix FLEXY

APPLICATION FEATURES

Mixing ratio	: 5.25-6.25 liters of water for 25 kg of powder
Working and tile correction time	: 20 minutes
Time to use the mixture	: 3 hours (pot life)
Application temperature	: +5 °C - +35 °C
Opening time for pedestrian traffic	: minimum 24 hours after
Jointing time	: minimum after 24 hours

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- On surfaces with high absorbency, the surface should be primed with **VitrA Fix FILM** before application.
- Glossy surfaces such as ceramic, exposed concrete etc. should be primed with VitrA Film Plus or **VitrA Film Plus Beton** before application.
- On surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method before application.
- **VitrA Fix FLEXY** is not a filling material. Accordingly, the deepest point on the application surface should not exceed 7 mm horizontally under a 2 m gauge. If there are larger deviations, necessary repairs should be made using **VitrA Fix RM 20** or **VitrA Fix S30** before tile laying.

APPLICATION

- Slowly add 25 kg of **VitrA Fix FLEXY** to 5.25-6.25 liters (21-25%) of clean water and mix until the mixture is homogenous and free of lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and apply after mixing again for 1-2 minutes.
- **VitrA Fix FLEXY,** which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed to the desired tooth thickness.
- For coating materials larger than 40X40 cm, combined bonding method (adhesive application both on the surface and on the back of the ceramic) should be used. Consumption may increase by approximately 30-50%.
- When laying transparent or light-colored natural stones, a preliminary test should be made in case of the risk of stains and shadows appearing on their surfaces and **VitrA Fix FLEXY** in white color should be used in case of shadows.
- When laying backing materials with nails, it is necessary to apply adhesive until the nail depth is filled.
- In order for the adhesion to be strong and for the adhesive to fully spread and adhere to the back of the tile, the tile should be lightly knocked with a rubber mallet.
- Joint filling should be started at least 24 hours after the bonding process.

APPLICATION SURFACES

It is suitable for use on cement based plaster and screed surfaces, exposed concrete surfaces and concrete slabs.

PRECAUTIONS

- If hardening or petrification is detected after the bags are opened, the product should not be used.
- Do not add additional water to the mixture after preparing the mixture.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- For floor applications on terraces, wet areas, etc., a minimum slope of 3% should be given in the direction of the water drain along the entire terrace and surface.
- **VitrA Fix FLEXY** has an open time of 20 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on highly absorbent surfaces, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with fingers in case of premature drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Under low temperature and high humidity conditions, the drying time may be prolonged.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes occur, depending on the heat-bearing systems and insulation applications, in applications to be made in large areas, depending on the load and pedestrian traffic on the floor, necessary expansion joints should be left on the floor, suitable expansion profiles or **VitrA Fix PU Sealant** polyurethane sealant should be used for these joints.
- Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLEXY PLUS

Cement based, high performance, non-slip, S1 class, elastic adhesive mortar

TS EN 12004-1 C2T S1 NİSAN 2017

DESCRIPTION

It is a cement based, high performance porcelain tile adhesive with high adhesion strength and flexibility used for horizontal and vertical application of porcelain tiles, granite, ceramic tiles, natural limestone, travertine, marble, cotto tiles, bricks and glass mosaics on surfaces such as concrete, plaster and screed.

AREAS OF USE

- For the application of porcelain tiles, granite, natural stone, ceramic tiles, cotto, marble, etc. on cement-based surfaces, indoors and outdoors,
- In areas with high temperature changes such as underfloor heating, cold storage, terraces, etc,
- In floor applications exposed to heavy pedestrian traffic such as shopping centers, schools, etc,
- In wet areas such as pools etc,
- It is used for ceramic applications on difficult surfaces such as paint, ceramic etc.

FEATURES

Material structure: High quality cement, special additives for strength and elasticity, thick fillers and binders.

Type	: Powder
Color	: Grey/white
Density	: 1.3 gr/cm³

TECHNICAL PERFORMANCE

Tensile bond strength	
- initial (after 28 days)	: ≥ 1.0 MPa (N/mm²)
- after heat aging	: ≥ 1.0 MPa (N/mm²)
- after aging with water	: ≥ 1.0 MPa (N/mm²)
- after freeze thaw cycle	: ≥ 1.0 MPa (N/mm²)
- open holding time (after 20 min.)	: ≥ 0.5 MPa (N/mm²)
Shear	: ≤ 0.5 mm
Flexibility	: 2.5 mm ≥ S1 < 5 mm
Temperature resistance	: -40 °C - +80 °C
Reaction to fire class	: A1 (TS EN 13501 - 1)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / C2T S1 class.
- CE

CONSUMPTION

Average 3-6 kg/m² may vary depending on the application surface, tile size and comb size used.

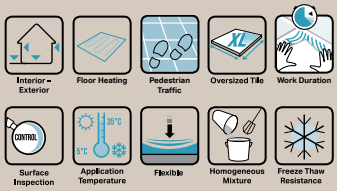
PACKAGING

In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Strong bonding performance of large-sized coating materials,
- Possibility to lay ceramic tiles from top to bottom without slipping
- High resistance to thermal shocks and surface movements due to its flexibility
- Strong adhesion to challenging surfaces
- Easy troweling



VitrA Fix FLEXY PLUS

APPLICATION FEATURES

Mixing ratio	: 5.5-6.5 liters of water for 25 kg of powder product
Working and tile correction time	: 30 minutes
Time to use the mixture	: 3 hours (pot life)
Application temperature	: +5 °C - +35 °C
Jointing time	: minimum 24 hours after

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- On surfaces with high absorbency, the surface should be primed with **VitrA Fix FILM** before application.
- Glossy surfaces such as ceramic, exposed concrete etc. should be primed with VitrA Film Plus or **VitrA Film Plus Beton** before application.
- On surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method before application.
- **VitrA Fix FLEXY PLUS** is not a filling material. Accordingly, the deepest point on the application surface should not exceed 7 mm horizontally under a 2 m gauge. If there are larger deviations, the necessary repairs should be made before tile laying using **VitrA Fix RM 20** or **VitrA Fix S30** horizontally.

APPLICATION

- Slowly add 25 kg of **VitrA Fix FLEXY PLUS** to 5.5-6.5 liters (22-26%) of clean water and mix until the mixture is homogenous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and mix again for 1-2 minutes and then apply.
- **VitrA Fix FLEXY PLUS**, which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed at the desired tooth thickness.
- For coating materials larger than 40X40 cm, combined bonding method (adhesive application both on the surface and on the back of the ceramic) should be used. Consumption may increase by approximately 30-50%.
- When laying transparent or light-colored natural stones, a preliminary test should be made in case of the risk of stains and shadows appearing on their surfaces, and in case of shadows, **VitrA Fix FLEXY PLUS** in white color should be used.
- When laying coating materials with nail backing, it is necessary to apply adhesive until the nail depth is filled.
- In order for the adhesion to be strong and for the adhesive to fully spread and adhere to the back of the tile, the tile should be lightly rammed with a rubber mallet.
- Joint filling should be started at least 24 hours after the bonding process.

APPLICATION SURFACES

Suitable for use on cement-based plaster and screed surfaces, exposed concrete surfaces and concrete slabs.

PRECAUTIONS

- If hardening or petrification is detected after the bags are opened, the product should not be used.
- Do not add additional water to the mixture after preparing the mixture.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- For floor applications on terraces, wet areas, etc., a minimum slope of 3% should be given in the direction of the water drain along the entire terrace and surface.
- **VitrA Fix FLEXY PLUS** has an open time of 20 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on highly absorbent surfaces, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with fingers in case of premature drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Under low temperature and high humidity conditions, the drying time may be prolonged.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes occur, depending on the heat-bearing systems and insulation applications, in applications to be made in large areas, depending on the load and pedestrian traffic on the floor, necessary expansion joints should be left on the floor, suitable expansion profiles or **VitrA Fix PU Sealant** polyurethane sealant should be used for these joints.
- Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLEX PORSELEN

Cement based, high performance, non-slip, S1 class, elastic adhesive mortar with extended working time

DESCRIPTION

Cement based, elastic porcelain tile adhesive with high adhesion strength and flexibility, used for bonding porcelain tiles, granite, ceramic tiles, natural limestone, travertine, marble, cotto tiles, bricks, thermal insulation plates, glass bricks and glass mosaics to walls and floors.

AREAS OF USE

- Application of porcelain tiles, granite, natural stone, ceramic tiles, cotto, marble, etc. on cement-based surfaces indoors and outdoors
- Underfloor heating, cold storage, terrace, etc. in areas with high temperature changes
- In floor applications exposed to heavy pedestrian traffic such as shopping centers, schools, etc.
- In wet areas such as pools etc.
- Suitable for ceramic applications on difficult surfaces such as paint, plaster, ceramic etc.

FEATURES

Material structure: It contains high quality cement, additives giving elasticity, auxiliary materials giving superior adhesion properties.

Type	: Powder
Color	: Grey/white
Density	: 1.3 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE

Tensile bond strength
- initial (after 28 days) : ≥ 1.0 MPa (N/mm²)
- after heat aging: ≥ 1.0 MPa (N/mm²)
- after aging with water: ≥ 1.0 MPa (N/mm²)
- after freeze thaw cycle: ≥ 1.0 MPa (N/mm²)
- open holding time (after 30 min.): ≥ 0.5 MPa (N/mm²)

Shear : ≤ 0.5 mm
Transverse deformation : 2.5 mm ≤ S1 ≤ 5 mm
Acid and alkali resistance : good
Temperature resistance : -40 °C - +80 °C
Reaction to fire class : A1 (TS EN 13501 - 1)
*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / C2TE, class S1.
- CE

CONSUMPTION

Average 3-6 kg /m² may vary depending on the application surface, tile size and comb size used.

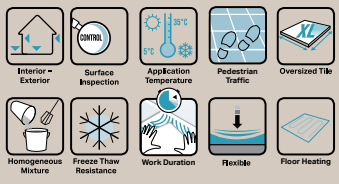
PACKAGING

In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Strong bonding performance of large-sized coating materials
- Top-down ceramic pouring without slipping
- Easy troweling
- High resistance to thermal shocks and surface movements due to its flexibility
- Long working hours
- Strong adhesion to challenging surfaces



VitrA Fix FLEX PORSELEN

APPLICATION FEATURES

Mixing ratio	: 5.5-6.5 liters of water per 25 kg bag
Working and tile correction time	: 30 minutes
Time to use the mixture	: 3 hours (pot life)
Application temperature	: +5 °C - +35 °C
Opening time for pedestrian traffic	: minimum 24 hours after
Jointing time	: minimum after 24 hours

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- On surfaces with high absorbency, the surface should be primed with **VitrA Fix FILM** before application.
- Glossy surfaces such as ceramic, exposed concrete etc. should be primed with **VitrA Film Plus** or **VitrA Film Plus BETON** before application.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- **VitrA Fix FLEX PORSELEN** is not a filling material. Accordingly, the deepest point on the application surface should not exceed 7 mm under a 2 m gauge. If there are larger deviations, the necessary repairs should be made using **VitrA Fix RM 20** or **VitrA Fix S 30** before tile laying.

APPLICATION

- Slowly add 25 kg **VitrA Fix FLEX PORSELEN** to 5,5-6,5 liters (22-26%) of clean water and mix until the mixture is homogeneous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and mix again for 1-2 minutes and then apply.
- **VitrA Fix FLEX PORSELEN**, which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed at the desired tooth thickness.
- For coating materials larger than 40x40 cm, a combined bonding method (adhesive application both on the surface and on the back of the ceramic) should be used. Consumption may increase by approximately 30-50%.
- When laying transparent or light-colored natural stones, a preliminary test should be made in case of the risk of stains and shadows appearing on their surfaces, and in case of shadows, white **VitrA Fix FLEX PORSELEN** should be used.
- When laying coating materials with nail backing, it is necessary to apply adhesive until the nail depth is filled.
- In order for the adhesion to be strong and for the adhesive to fully spread and adhere to the back of the tile, the tile should be lightly rammed with a rubber mallet.
- Joint filling should be started at least 24 hours after the bonding process.

APPLICATION SURFACES

Suitable for use on cement-based plaster and screed surfaces, exposed concrete surfaces and concrete slabs.

PRECAUTIONS

- If hardening or petrification is detected after the bags are opened, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given in the direction of the water drain along the entire terrace and surface.
- The open time of **VitrA Fix FLEX PORSELEN** is 30 minutes. However, in unsuitable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with fingers in case of premature drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Under low temperature and high humidity conditions, the drying time may be prolonged.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas with inter-seasonal temperature changes, depending on the heat-bearing systems and insulation applications, and in applications to be made in large areas, depending on the load and pedestrian traffic on the floor, necessary expansion joints should be left on the floor, suitable expansion profiles or **VitrA Fix PU Sealant** polyurethane sealant should be used for these joints.
- Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix POOL

Cement based, high performance, specially developed for pools, S1 class elastic adhesive mortar

TS EN 12004-1 C2TE S1 NİSAN 2017

DESCRIPTION

It is a cement-based porcelain tile adhesive with high water repellent properties, high adhesion strength and flexibility, which can be safely used for bonding glass mosaic, porcelain tile, marble, natural granite, natural stone, travertine, pool tile and non-slip parts of all types and sizes.

AREAS OF USE

- For the application of porcelain tile, granite, natural stone, glass mosaic, ceramic tile, marble etc. coating materials on cement based surfaces indoors and outdoors,
- In wet areas such as pools, water tanks, baths, car wash stations, etc,
- It is used for ceramic applications on difficult surfaces such as paint, plaster, ceramic etc.

FEATURES

Nature : PHigh quality cement, additives that increase water repellency and elasticity, auxiliary materials that give superior adhesion properties.
Colour : Grey / White
Density : 1.3 ± 0.05 g/cm³

TECHNICAL PERFORMANCE*

Tensile bond strength	
- initial (after 28 days)	: ≥ 1.0 MPa (N/mm²)
- after heat aging	: ≥ 1.0 MPa (N/mm²)
- after aging with water	: ≥ 1.0 MPa (N/mm²)
- after freeze thaw cycle	: ≥ 1.0 MPa (N/mm²)
- open holding time (after 30 min.)	: ≥ 0.5 MPa (N/mm²)
Shear	: ≤ 0.5 mm
Flexibility	: 2.5 mm ≤ S1 ≤ 5 mm
Acid and alkali resistance	: good
Temperature resistance	: -40 °C - +80 °C
Reaction to fire class	: A1 (TS EN 13501 - 1)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / C2TE S1 class.

CONSUMPTION

Average 3-6 kg/m² may vary depending on the application surface, tile size and comb size used.

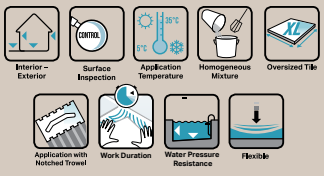
PACKAGING

In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Excellent adhesion performance in pools and wet areas
- Possibility to lay ceramic tiles from top to bottom without slipping
- Long working time
- High resistance to thermal shocks and surface movements due to its flexibility
- Improved water repellency



VitrA Fix POOL

APPLICATION FEATURES

Mixing ratio : 5.5-6.5 liters of water per 25 kg bag
Working and tile correction time : 30 minutes
Time to use the mixture (Pot life) : 3 hours
Application temperature : +5 °C - +35 °C
Opening time for pedestrian traffic (light pedestrian traffic): minimum 24 hours
Jointing time : minimum after 24 hours

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or gloss of the surface must be removed by scraping, etc. before application.
- Glossy surfaces such as ceramic, exposed concrete, etc. should be primed with VitrA Film Plus or VitrA Film Plus Beton before application.
- On non-absorbent surfaces, the surface should be primed with **VitrA Fix FILM PLUS** before application.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- **VitrA Fix POOL** is not a filling material. Accordingly, the deepest point on the application surface should not exceed 7 mm under a 2 m gauge. If there are larger deviations, the necessary repairs should be made using **VitrA Fix RM 20** or **VitrA Fix S 30** before tile laying.

APPLICATION

- Slowly add 25 kg **VitrA Fix POOL** to 5,5-6,5 liters (22-26%) of clean water and mix until the mixture is homogeneous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and apply after mixing again for 1-2 minutes.
- **VitrA Fix POOL**, which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed at the desired tooth thickness.
- For bonding coating materials larger than 40x40 cm and for exterior applications, a combined bonding method (adhesive application both on the surface and on the back of the ceramic) must be used. Consumption may increase by approximately 30-50%.
- When laying transparent or light colored natural stones, a preliminary test should be carried out in case of the risk of stains and shadows appearing on the surface and in case of shadows, white colored **VitrA Fix POOL** should be used.
- It is necessary to apply adhesive to coating materials with nail backing until the nail depth is filled.
- In order for the adhesion to be strong and for the adhesive to fully spread and adhere to the back of the tile, the tile should be lightly rammed with a rubber mallet.
- Joint filling should be started at least 24 hours after the bonding process.

APPLICATION SURFACES

Suitable for use on cement-based plaster and screed surfaces, exposed concrete surfaces and concrete slabs.

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered or concrete surfaces (horizontal and vertical) before the curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given in the direction of the water drain along the entire terrace and surface.
- The open time of **VitrA Fix POOL** is 30 minutes. However, in unsuitable ambient conditions (high temperature) or on surfaces with high absorbency, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with fingers in case of early drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Under low temperature and high humidity conditions, the drying time may be prolonged.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas with inter-seasonal temperature changes, necessary expansion joints should be left on the floor, depending on the load and pedestrian traffic on the floor in applications to be made in large areas, depending on the heat-bearing systems and insulation applications, and suitable expansion profiles or **VitrA Fix PU Sealant** polyurethane sealant should be used for these joints.
- Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLOOR PLUS

TS EN 12004-1 C2FE S1 NİSAN 2017

Cement based, high performance, specially developed for floor applications, self-leveling, fast setting, extended working time, S1 class elastic adhesive mortar

DESCRIPTION

It is a fast setting, cement based, thick filled porcelain tile adhesive with high adhesion strength and flexibility, fast setting, cement based, thick filled porcelain tile adhesive that can be safely used for bonding large sized ceramic tiles, porcelain tiles, granite, natural stone, travertine, marble, cotto, etc. to the floor, with 100% spreading feature behind the tile.

AREAS OF USE

- Indoor and outdoor floor applications of large-sized porcelain tiles, granite, natural stone, ceramic tile, cotto, marble etc. coating materials
- In floor applications exposed to heavy pedestrian-load traffic such as shopping centers, schools, hospitals, hotels, banks, etc.
- Thanks to its fluid consistency, 100% coverage of the back of the tile without the need for double-sided adhesion method
- In applications with high temperature changes such as underfloor heating, cold storage, terrace etc.

FEATURES

Material structure: High quality cement, elasticizing and setting accelerating additives, auxiliary materials with superior adhesion properties.

Type	: Powder
Color	: Grey/white
Density	: 1.3 gr/cm³

TECHNICAL PERFORMANCE

Tensile bond strength

- initial (after 28 days)	: ≥ 1.0 MPa (N/mm²)
- after heat aging	: ≥ 1.0 MPa (N/mm²)
- after aging with water	: ≥ 1.0 MPa (N/mm²)
- after freeze thaw cycle	: ≥ 1.0MPa (N/mm²)
- open holding time (after 10 min.)	: ≥ 0.5 MPa (N/mm²)

Deformable adhesive: Transverse deformation: ≥ 2.5 mm and < 5 mm

Temperature resistance : -30 °C - +70 °C

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

TS EN 12004-1 / C2FE, S1 class.

CONSUMPTION

Average 5-6 kg/m² may vary depending on the application surface, tile size and comb size used

PACKAGING

In 20 kg kraft bags (60 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- 100% coverage of the back of the tile thanks to its fluid consistency
- Consumption savings without the need for a combined bonding method
- Powerful handling of large-sized coating materials
- bonding performance
- High resistance to thermal shocks and surface movements due to its flexibility
- Fast setting

VitrA Fix FLOOR PLUS

APPLICATION FEATURES

Mixing ratio	: 4.0-4.4 liters of water per 20 kg bag
Open time	: 30 minutes
Mixture handling (working) time	: maximum 45 minutes
Application temperature	: +5 °C - +25 °C
Tile correction time	: 30 minutes
Under-tile spreading area	: 100%
Opening time for pedestrian traffic (light pedestrian traffic)	: minimum 12 hours
Jointing time	: Minimum after 6 hours on horizontal surfaces
Complete hardening time (23 °C, 50% relative humidity)	: 28 days

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- On surfaces with high absorbency, the surface should be primed with **VitrA Fix FILM** before application.
- Glossy surfaces such as ceramic, exposed concrete etc. should be primed with **VitrA Film Plus** or **VitrA Film Plus Beton** before application.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- **VitrA Fix FLOOR PLUS** is not a filling material. Accordingly, the deepest point on the application surface should not exceed 7 mm under a 2 m gauge. If there are larger deviations, necessary repairs should be made with **VitrA Fix RM 20** or **VitrA Fix S 30** before application.

APPLICATION

- Slowly add 20 kg of **VitrA Fix FLOOR PLUS** to 4,0-4,4 liters (20-22%) of clean water and mix until the mixture is homogeneous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and apply after mixing again.
- **VitrA Fix FLOOR PLUS**, which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed to the desired tooth thickness.
- When laying large sized tiles, U9, E10 or marble trowel should be used to ensure that the tile floats in the adhesive. After tile laying, especially in exterior floor applications, the comb marks on the tile edges should be pressed on the tile until they are thoroughly crushed.
- When laying transparent or light colored natural stones, a preliminary test should be made against the risk of stains and shadows appearing on their surfaces, and if shadows appear, white colored **VitrA Fix FLOOR PLUS** should be used.
- The joint filling process should be started at least 6 hours after the bonding process.

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not add additional water to the mixture after preparing the mixture.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal) before the curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given in the direction of the water drain along the entire terrace and surface.
- The open time of **VitrA Fix FLOOR PLUS** is 30 minutes. However, in unsuitable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with fingers in case of premature drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Drying time in low temperature and high humidity conditions can be prolonged.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas with inter-seasonal temperature changes, necessary expansion joints should be left on the floor, depending on the load and pedestrian traffic on the floor in applications to be made in large areas, depending on the heat-bearing systems and insulation applications, and suitable expansion profiles or **VitrA Fix PU Sealant** polyurethane sealant should be used for these joints.
- Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLEX RAPID

TS EN 12004-1 C2FT NİSAN 2017

Cement based, high performance, fast setting, non-slip adhesive mortar

DESCRIPTION

It is a fast-drying, cement-based porcelain tile adhesive with high adhesion strength that can be safely used for bonding ceramic tiles, porcelain tiles, natural stone, travertine, marble, cotto or earth-based tiles in places that need to be opened to pedestrian and freight traffic in a short time for renovation and renovation purposes.

AREAS OF USE

- Application of porcelain tile, granite, natural stone, ceramic tile, cotto, marble, etc. coating materials on cement-based surfaces in interior and exterior spaces
- Within 1 day for applications in commercial enterprises such as cafes, markets, banks, etc.
- Ceramic on ceramic applications

FEATURES

Material structure : High-quality cement, and additives for elasticity and setting acceleration, auxiliaries for superior adhesion
contains materials.

Type	: Powder
Color	: Grey / white
Density	: 1.3 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Tensile bond strength	
- initial (after 28 days)	: ≥ 0.5 MPa (N/mm²)
- after heat aging	: ≥ 1 MPa (N/mm²)
- after aging with water	: ≥ 1 MPa (N/mm²)
- after freeze thaw cycle	: ≥ 1 MPa (N/mm²)
- open holding time (after 20 min.)	: ≥ 0.5 MPa (N/mm²)
Shear	: ≤ 0.5 mm
Flexibility	: Medium
Temperature resistance	: -30 °C - +70 °C
Reaction to fire class	: A1 (TS EN 13501 - 1)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / C2FT class.
- CE

CONSUMPTION

Average 3-6 kg/m² may vary depending on the application surface, tile size and comb size used.

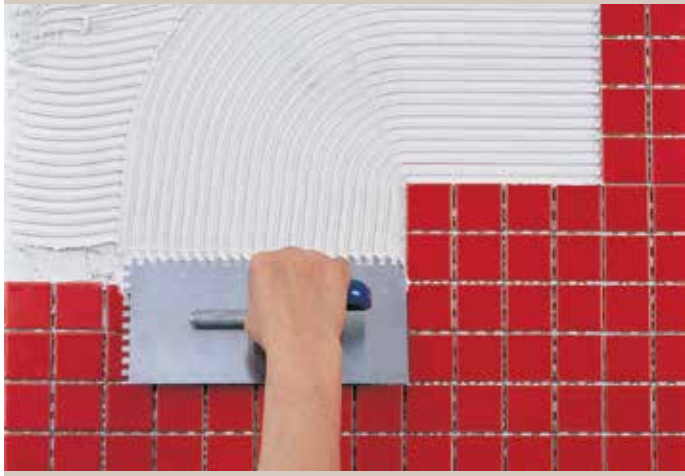
PACKAGING

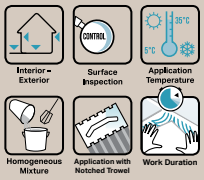
In 20 kg kraft bags (60 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Possibility of joint filling application after 6 hours with fast setting feature
- Top-down ceramic pouring without slipping
- Strong adhesion performance
- Easy troweling
- Ceramic on ceramic applications





VitrA Fix FLEX RAPID

APPLICATION FEATURES

Mixing ratio	: 4.4-4.8 liters of water for 20 kg of powder
Working and tile correction time	: 15 minutes
Time to use the mixture	: 20 minutes (pot life)
Application temperature	: +5 °C - +35 °C
Opening time for pedestrian traffic	: minimum 6 hours after
Jointing time	: minimum after 6 hours

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- On surfaces with high absorbency, the surface should be primed with VitrA Fix FILM before application.
- Glossy surfaces such as ceramic, exposed concrete etc. should be primed with **VitrA Film Plus** or **VitrA Film Plus Beton** before application.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- **VitrA Fix FLEX RAPID** is not a filling material. Accordingly, the deepest point on the application surface should not exceed 7 mm under a 2 m gauge. If there are larger deviations, necessary repairs should be made using **VitrA Fix RM 20** or **VitrA Fix S 30** before tile laying.

APPLICATION

- Slowly add 20 kg of **VitrA Fix FLEX RAPID** to 4.4-4.8 liters (22-24%) of clean water and mix until the mixture is homogeneous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and apply after mixing again.
- **VitrA Fix FLEX RAPID,** which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed to the desired tooth thickness.
- For coating materials larger than 40x40 cm, combined bonding method (adhesive application both on the surface and on the back of the ceramic) should be used. Consumption may increase by approximately 30-50%.
- When laying transparent or light-colored natural stones, a preliminary test should be made in case of the risk of stains and shadows appearing on their surfaces and **VitrA Fix FLEX RAPID** in white color should be used in case of shadows.
- When laying coating materials with nail backing, it is necessary to apply adhesive until the nail depth is filled.
- In order for the adhesion to be strong and for the adhesive to fully spread and adhere to the back of the tile, the tile should be lightly rammed with a rubber mallet.
- Joint filling should be started at least 6 hours after the bonding process.

APPLICATION SURFACES

Suitable for use on cement based plaster and screed surfaces, exposed concrete surfaces and concrete slabs.

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given in the direction of the water drain along the entire terrace and surface.
- **VitrA Fix FLEX RAPID** open time is 10-15 minutes. However, in unsuitable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with fingers in case of premature drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Drying time in low temperature and high humidity conditions can be prolonged.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas with inter-seasonal temperature changes, depending on the heat-bearing systems and insulation applications, and in applications to be made in large areas, depending on the load and pedestrian traffic on the floor, necessary expansion joints should be left on the floor, suitable expansion profiles or **VitrA Fix PU Sealant** polyurethane sealant should be used for these joints. Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLEX ULTRA

TS EN 12004-1 C2TE S2 NİSAN 2017

Cement based, high performance, non-slip, extended working time, S2 class very elastic adhesive mortar

DESCRIPTION

Cement based porcelain tile adhesive with high adhesion strength and flexibility, used for bonding porcelain tiles, granite, ceramic tiles, natural limestone, travertine, marble, cotto tiles, bricks, thermal insulation plates, glass bricks and glass mosaics to walls and floors.

AREAS OF USE

- For bonding porcelain ceramic, granite ceramic, marble, natural stone, cotto etc. coating materials on exterior facades,
- In areas with high temperature variations such as cold storage, terraces, underfloor heating, etc,
- In floor applications exposed to heavy pedestrian traffic such as hospitals, shopping centers, hotels, etc,
- In wet areas such as pools, water tanks, etc.
- Ideal for use in ceramic, granite ceramic applications on difficult surfaces such as paint, plaster, ceramic, granite ceramic etc.

FEATURES

Material structure :High quality cement, elasticizing additives, superior adhesion contains auxiliary materials.

Type	: Powder
Color	: Grey / white
Density	: 1.3 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Tensile bond strength	
- initial (after 28 days)	: ≥ 1.0 MPa (N/mm²)
- after heat aging	: ≥ 1.0 MPa (N/mm²)
- after aging with water	: ≥ 1.0 MPa (N/mm²)
- after freeze thaw cycle	: ≥ 1.0 MPa (N/mm²)
- open holding time (after 30 min.)	: ≥ 0.5 MPa (N/mm²)
Shear	: ≤ 0.5 mm
Flexibility	: 5 mm ≤ S2
Acid and alkali resistance	: good
Temperature resistance	: -40 °C - +80 °C
Reaction to fire class	: A1 (TS EN 13501 - 1)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / C2TE, S2 class.
- CE

PACKAGING

In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

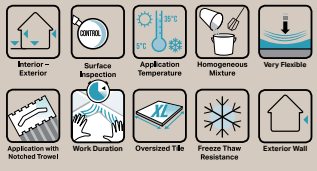
CONSUMPTION

Average 5-8 (kg/m²) may vary depending on the application surface, tile size and comb size used.

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Strong bonding performance of large-sized coating materials
- Possibility to lay ceramic tiles from top to bottom without slipping
- Easy troweling
- Excellent resistance to thermal shocks and surface movements with high flexibility
- Strong adhesion to challenging surfaces
- Long working time



VitrA Fix FLEX ULTRA

APPLICATION FEATURES

Mixing ratio	: 5.5-6.5 liters of water for 25 kg of powder product
Working and tile smoothing time	: 30 minutes
Time to use the mixture	: 3 hours (pot life)
Application temperature	: +5 °C - +35 °C
Opening time for pedestrian traffic	: minimum 24 hours after
Jointing time	: minimum after 24 hours

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- On surfaces with high absorbency, the surface should be primed with **VitrA Fix FILM** before application.
- Glossy surfaces such as ceramic, exposed concrete etc. should be primed with **VitrA Film Plus** or **VitrA Film Plus BETON** before application.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- **VitrA Fix FLEX ULTRA** is not a filling material. Accordingly, the deepest point on the application surface should not exceed 7 mm under a 2 m gauge. If there are larger deviations, the necessary repairs should be made using **VitrA Fix RM 20** or **VitrA Fix S 30** before tile laying.

APPLICATION

- Slowly add 25 kg **VitrA Fix POOL** to 5,5-6,5 liters (22-26%) of clean water and mix until the mixture is homogeneous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and apply after mixing again.
- **VitrA Fix FLEX ULTRA**, which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed at the desired tooth thickness.
- For bonding of coating materials larger than 40x40 cm and for exterior applications, a combined bonding method (adhesive application both on the surface and on the back of the ceramic) must be used. Consumption may increase by approximately 30-50%.
- When laying nail-backed coating materials, adhesive should be applied until the nail depth is filled.
- The tile should be lightly tapped with a rubber mallet to ensure a firm adhesion and to ensure that the adhesive is fully spread and adhered to the back of the tile.
- Joint filling should be started at least 24 hours after the bonding process.

*Double-sided bonding method is compulsory.

APPLICATION SURFACES

Suitable for use on cement based plaster and screed surfaces, exposed concrete surfaces and concrete slabs.

PRECAUTIONS

- If hardening or petrification is detected after opening the packages, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not apply directly on metal, rubber, PVC, wood, cement based particle board surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given in the direction of the water drain along the entire terrace and surface.
- The open time of **VitrA Fix FLEX ULTRA** is 30 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, the open time is shortened. For this reason, a wetness test should be performed by touching the surface of the adhesive with fingers in case of premature drying and film formation. If the mortar is not smeared on the fingers, the application time of the adhesive has passed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Under low temperature and high humidity conditions, the drying time may be prolonged.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas with inter-seasonal temperature changes, depending on the heat-bearing systems and insulation applications, and in applications to be made in large areas, depending on the load and pedestrian traffic on the floor, necessary expansion joints should be left on the floor, suitable expansion profiles or VitrA Fix PU Sealant polyurethane sealant should be used for these joints.
- Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix HP

TS EN 12004-1 D2T NİSAN 2017

Acrylic dispersion based, ready to use, non-slip, paste type adhesive mortar

DESCRIPTION

Ready-to-use, paste type, acrylic based tile adhesive with high adhesion strength and flexibility, used for bonding ceramic tiles, marble, thermal insulation plates, glass bricks and glass mosaics to walls and floors.

AREAS OF USE

- For ceramic tile applications on surfaces such as gypsum plaster plates, cement particle board (betopan), etc,
- For ceramic applications on difficult surfaces such as paint, ceramic, exposed concrete etc,
- Used in renovation and remodeling works.

FEATURES

Material structure : Various emulsion-based fillers, elasticizing additives
Type : Ready dispersion in cream form
Color : White
Density : 1.75 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Shear bond strength
- initial (after 28 days) : ≥ 1 MPa (N/mm²)
- after heat aging : ≥ 1 MPa (N/mm²)
- after aging with water : ≥ 1 MPa (N/mm²)
- after freeze thaw cycle : ≥ 1 MPa (N/mm²)
- open holding time shrinkage adhesion strength (after 20 min.) : ≥ 0.5 MPa (N/mm²)

Shear : ≤ 0.5 mm
Flexibility : Medium
Temperature resistance : 30 °C - +70 °C
Reaction to fire class : A1 (TS EN 13501 - 1)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 12004-1 / D2T class.

CONSUMPTION

Average 3-4 kg/m² may vary depending on the application surface, tile size and comb size used.

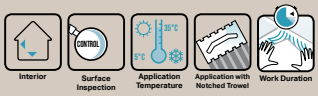
PACKAGING

In 15 kg plastic bucket packages (44 pieces per pallet / 660 kg)
In 5 kg plastic bucket packages (60 pieces per pallet / 300 kg)

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature must be above +5 °C.
- Maximum 2 pallets can be stacked on top of each other.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be tightly closed in an airtight manner. The mortar in the bucket should be covered with airtight nylon.

- Clean and easy application in renovation works
- Strong adhesion performance
- Easy troweling
- Practical solution on difficult surfaces with its elastic structure
- Possibility to lay ceramic tiles from top to bottom without slipping



VitrA Fix HP

APPLICATION FEATURES

Mixing ratio	: ready-to-use mixture
Working and tile correction time	: 20 minutes
Time to use the mixture (pot life)	: 3 hours
Application temperature	: +5 °C - +35 °C
Jointing time	: minimum after 24 hours

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and solid, must not be too dry or sweating. Moisture content of the application surface should not be above 5%.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or gloss of the surface must be removed by scraping, etc. before application.
- There is no need to use primer for applications on plaster.
- Ceramic etc. glossy surfaces should be primed with **VitrA Film Plus** before application.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- Necessary repairs should be made using **VitrA Fix RM 20** or **VitrA Fix S 30** before tile installation.

APPLICATION

- **VitrA Fix HP** is ready-to-use tile adhesive. The product can be used directly after opening the package.
- **VitrA Fix HP**, which is spread well on the surface with the flat side of the toothed steel trowel, should then be combed to the desired tooth thickness. It is recommended to use V_5 or V6 comb types for application.
- When laying nail-backed coating materials, it is necessary to apply adhesive until the nail depth is filled.
- The tile should be lightly rammed with a rubber mallet for the adhesion to be firm and for the adhesive to fully spread and adhere to the back of the tile.
- Joint filling should be started at least 24 hours after the bonding process.

APPLICATION SURFACES

It is used on cement based plaster and screed surfaces, exposed concrete surfaces, gypsum and wood based surfaces.

PRECAUTIONS

- **VitrA Fix HP** should not be applied on the floor outdoors.
- It is not suitable for use in areas exposed to permanent water (pool, water tank, etc.).
- If hardening or petrification is detected in the product after opening the package, the product should not be used.
- Do not apply directly on metal, rubber, PVC surfaces.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- The open time of **VitrA Fix HP** is 20 minutes. However, in unsuitable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, the open time is shortened. Therefore, a wetness test should be performed by touching the surface of the adhesive with a finger in case of premature drying and film formation. If the adhesive is not smeared on the fingers, the application time has elapsed. It is not possible to bond by wetting the dried adhesive surface. In this case, the dried or filmed adhesive must be scraped off the surface and a new application must be made. Drying time may be prolonged in low temperature and high humidity ambient conditions and in tile-on-tile applications.
- The product should be consumed within 3 hours after opening the package.
- Tiled surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.
- In ceramic-on-ceramic applications, the drying time of the product can be up to 1 week depending on the ambient conditions and size. For this reason, cement-based, high-performance adhesive mortars are recommended for bonding large-sized ceramics with low water absorption.

SAFETY INSRUCTIONS

- Avoid contact with skin and eyes. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix PurLaM

Polyurethane based, 2-component, solvent-free, multi-purpose adhesive

- High adhesion strength
- High flexibility
- Adhesion to different surfaces
- Solvent Free
- Suitable for repair, filling, waterproofing

DESCRIPTION

Polyurethane-based, two-component, solvent-free, water-insoluble adhesive

AREAS OF USE

- Bonding of porcelain ceramic, granite ceramic, marble, ceramic, etc. coating materials to very different surfaces such as metal, cement particle board (betopan), wood, concrete, plaster plate,
- For bonding thin and very large special ceramics with epoxy laminated backing,
- Multi-purpose adhesive suitable for parquet bonding.

FEATURES

Material Structure	: Polyurethane
Density (DIN EN ISO 2811-1)	: ~1.55 gr/cm³ A+B Component
Color	: Beige
Solid Content	: ~ 100% (by weight)

TECHNICAL PERFORMANCE

Tensile bond strength	
- initial (after 28 days)	: ≥ 2 MPa (N/mm²)
- after heat aging	: ≥ 2 MPa (N/mm²)
- after aging with water	: ≥ 2 MPa (N/mm2)
- after freeze-thaw cycle	: ≥ 2 MPa (N/mm²)
- open holding time (after 30 min.)	: ≥ 1 MPa (N/mm²)
Shear	: ≤ 0.5 mm
Flexibility	: Excellent
Temperature resistance	: -30 °C - +80 °C
Reaction to fire class	: A1 (TS EN 13501 - 1)
Shore A Hardness	: 55-65 ASTM D2240

CONSUMPTION

1,25 kg/m² depending on the application surface. (with 4X4X4 mm comb)

PACKAGING

7 kg set (A: 6,25 KG + B: 0,75 kg) metal

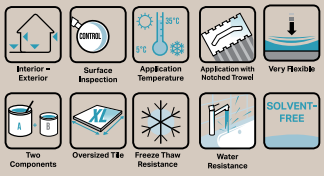
STORAGE AND SHELF LIFE

- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 1 year under appropriate storage conditions.
- Opened packages should be kept tightly closed.

APPLICATION FEATURES

Mixing ratio (A+B)	: 6.25 : 0.75 (wt.)
Application temperature	: Min. +15 °C / Max. +35 °C
Working time	: 30-45 minutes (+20 °C)
Hardening time	: 5 hours (+20 °C)

NOTE: These tests were performed under laboratory conditions. Times are approximate. They will be affected by changing ambient conditions, especially temperature and relative humidity.



VitrA Fix PurLaM

APPLICATION

- Component A is mixed in itself and then component B is added to A and mixed very well until a homogeneous color is obtained.
- Mechanical mixers with min. Mechanical mixers with 300-400 rpm power should be used.
- The mixture is applied by combing the surface with a notched trowel (4x4x4 mm tooth size).
- Ceramic, parquet or rubber rollers should be consumed within 45-60 minutes.
- The prepared mixture should be consumed within max. 1 hour.

PRECAUTIONS

- Do not apply on surfaces in danger of frost or overheated surfaces, under direct sunlight and in high winds.
- In cold weather, packages should be stored at least 24 hours before application at a minimum room temperature of 15-20 ºC.
- After application, the surface should be protected from water, rain, snow etc. until it dries.
- It should be taken into consideration that full mechanical and chemical resistance will occur within 7 days.

SAFETY INSRUCTIONS

- Do not inhale, avoid contact with skin and eyes.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during product application.
- For more detailed safety information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix 1-6

TS EN 13888 CG1 MART 2010

Cement based, standard performance joint filler

- Full color representation with a smooth surface
- Easy application and cleaning
- Abrasion resistant
- No cracking, collapse

DESCRIPTION

It is a cement-based joint filling material used in 1-6 mm joint widths of coating materials such as ceramic tile, natural stone, marble and travarten, which does not collapse and crack. It does not form cracks with its low shrinkage value. Provides easy and fast application.

AREAS OF USE

For interior (1-6 mm) joint filling applications of ceramic tile, marble, natural stone, glass mosaic etc. coating materials

FEATURES

Material structure : High quality cement, fine filler and water repellent agents.
Type : Powder
Color : Color chart colors
Density : 1.40 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Water absorption (after 30 minutes)	: ≤ 5 gr
Water absorption (after 240 minutes)	: ≤ 10 gr
Moisture resistance	: good
Alkali resistance	: good
Acid resistance	: good (for Ph› 3 acids)
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 2.5 MPa (N/mm²)
Flexural strength (freeze-thaw)	: ≥ 2.5 MPa (N/mm²)
Compression strength	: ≥ 15 MPa (N/mm²)
Compression strength (freeze-thaw)	: ≥ 15 MPa (N/mm²)
Abrasion resistance	: ≤ 2000 mm³
Shrinkage value	: ≤ 3 mm/m

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications one day later. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 13888 / CG1 class.
- G

CONSUMPTION

Approximate consumption (kg/m²) may vary depending on the application surface, tile size and comb size used.

		According to Joint Width Approximate Consumption (gr/m²)		
Tile Dimensions (cm)	**Tile Thickness (mm)**	**2 mm**	**3 mm**	**5 mm**
10X10	6	400	600	950
20X20	8	275	400	650
30X30	8	175	250	400
30X60	8	140	200	325
45X45	8	125	180	300
60X60	9	100	150	250

*Sample consumption.

VitrA Fix 1-6

PACKAGING

In 20 kg kraft bags

STORAGE AND SHELF LIFE

- For storage, care should be taken to place a maximum of 10 kraft bags on top of each other.
- Product storage conditions should be followed and products should not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year for kraft bags and 2 years for polyethylene bags under appropriate storage conditions. Packages should be tightly closed when not in use.

APPLICATION FEATURES

Mixing ratio	: 5.8-6.6 liters of water for 20 kg of powder product
Time to use the mixture	: 1 hour (pot life)
Application temperature :	+5 °C - +35 °C
Recommended joint width	: 1-6 mm
Time to use	: 24-48 hours

SURFACE PREPARATION

- Joint gaps must be cleaned of adhesion inhibiting residues and must be completely empty and smooth.
- Joint filling should not be applied before the recommended waiting period after adhesive application.
- For highly absorbent ceramics, in high temperature or extremely windy environments, the joint gaps should be moistened with clean water before application.

APPLICATION

- Slowly add 20 kg of **VitrA Fix 1-6 mm** to 5,8-6,6 liters (29-33%) of clean water and mix until the mixture is homogeneous and free of lumps.
- It is recommended to use a low speed mixer for a lump-free and homogeneous mixture.
- The mixture should have a consistency that will not flow when troweled.
- Allow the mixture to rest for 5 minutes before application and mix again foR 1-2 minutes and then apply.
- Absolutely no additional water should be added to the mixture to ensure a flowable consistency.
- The prepared joint filling material should be filled into the joint gaps with a rubber spatula or a hard rubber-based joint trowel.
- The mortar spread on the surface should be filled diagonally (at a 45 degree angle) into the joint gaps. Remove excess grout from the surface. If the filling process is performed parallel to the joint gaps, separation of the joint filling material from the surface or deterioration and roughening of the surface may be observed.
- Whichever direction the joint filling process is started, the application should be continued in that direction until the filling process is completed. During the joint filling process with a trowel, work in one direction.
- The time to clean the joint sealant from the surface is the moment when the joint sealant starts to dry and its surface starts to become dull. This time may vary depending on the ambient conditions, it is normally 10-15 minutes under normal conditions, and it may shorten in hot environments and prolong at low temperatures. To find the appropriate time, touch the joint material residue on the tile with a finger, if the material is very lightly dusted on the finger, it means that it has dried sufficiently for cleaning.
- The residues on the surface are cleaned with diagonal (45 degree angle) movements using a damp sponge. Clean water should be used to moisten the sponge, while the cleaning water for the soiled sponge should be kept separate.
- If there are still joint stains on the surface after the last cleaning, mortar residues on the coating surface can be cleaned with **VitrA Fix NET** at least 10 days after the application. **VitrA Fix NET** can only be used on acid-resistant tiles (for details, please see the technical product page about **VitrA Fix NET**).

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag. Excess water to be added into the mixture manifests itself in the form of low strength, chalking, point holes in the final product.
- In pool applications, a minimum of 7 days should be waited for the joint material to gain sufficient strength and the pool should be taken into use after this period.
- The waiting time of **VitrA Fix 1-6** mm in the container is 1 hour, and the waiting time for the first cleaning stage after application is 10-15 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on highly absorbent surfaces, these times are shortened and may be reduced to a few minutes depending on the severity of the conditions. For this reason, a wetness test should be performed by touching the joint surface with a finger in case of premature drying and film formation. When the mortar does not get on the fingers, proceed to the cleaning stage. Under low temperature and high humidity conditions, drying time may be prolonged.
- Joint filler should be applied at least 3 mm thick. In thinner applications, the joint filling material will be easily scraped off as its strength will be weak.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes occur, depending on the heat-bearing systems and insulation applications, and in applications to be carried out in large areas, depending on the load and pedestrian traffic on the ground, necessary expansion joints should be left on the ground, suitable expansion profiles or joint filling mastics (PU, MS Polymer, silicone, etc. based) should be used for these joints. Cement based products should never be used as expansion joints.
- The grouted surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.
- Sawdust should not be used for surface cleaning.
- The use of general cleaning materials such as bleach, lime remover, etc. may cause damage to colored joint fillers. Joint fillers should be cleaned with **VitrA Fix JOINT CLEANER** product.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLEX 0-5

(Formerly VitrA Fix FLEX 0-3)

TS EN 13888 CG2 WA MART 2010

Cement-based, high-performance, silicone-added, thin-filled, elastic, hygienic joint filler

DESCRIPTION

It is a cement-based, silicone-added joint filling material with increased water repellency, high abrasion resistance, high abrasion resistance and high water repellency, used in 5 mm joint widths of coating materials such as ceramic tiles, porcelain tiles, glass mosaic, natural stone, marble and travertine. Does not collapse, does not form cracks with low shrinkage value. Gives full color, easy to clean. Provides easy and fast application, eliminates scratching problems during application and cleaning thanks to its thin filling structure. High resistance to UV and outdoor weather conditions.

AREAS OF USE

- Underfloor heating floors, terraces, etc. in areas with high temperature changes,
- In floor applications exposed to heavy pedestrian traffic such as shopping centers, schools, hotels, etc,
- In wet areas such as pools, baths, bathrooms, etc,
- It is ideal for joint filling applications of porcelain ceramic, granite ceramic, natural stone, ceramic, cotto, marble, glass mosaic etc. coating materials up to max. 5 mm indoors and outdoors.

FEATURES

Material structure : High quality cement, elasticizing additives, silicone, fine filler and water repellent agents.

Type	: Powder
Color	: Color chart colors
Density	: 1.40 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Water absorption (after 30 minutes)	: ≤ 2 gr
Water absorption (after 240 minutes)	: ≤ 5 gr
Moisture resistance	: excellent
Alkali resistance	: excellent
Acid resistance	: good (for Ph>3 acids)
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 2.5 MPa (N/mm²)
Flexural strength (freeze-thaw)	: ≥ 2.5 MPa (N/mm²)
Compression strength	: ≥ 15 MPa (N/mm²)
Compression strength (freeze-thaw)	: ≥ 15 MPa (N/mm²)
Abrasion resistance	: ≤ 1000 mm³
Shrinkage value	: ≤ 2 mm/m

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

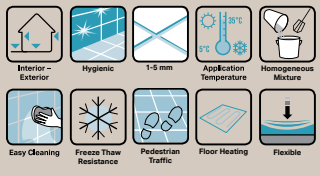
REFERENCE STANDARD

- TS EN 13888 / CG2, WA class
- G
- Public Works Pos No: 10.300.2232

STORAGE AND SHELF LIFE

- For storage, care should be taken to place a maximum of 10 kraft bags on top of each other.
- Product storage conditions should be followed and products should not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year for kraft bags and 2 years for polyethylene bags under appropriate storage conditions. Packages should be tightly closed when not in use.

- Full color representation with a smooth surface
- Difficult to dirty, easy to clean
- Easy to apply, no cracking and collapse
- Proven bacteria resistant, mold and algae free
- Water repellent and elastic
- High resistance to thermal shock and abrasion



VitrA Fix FLEX 0-5

(Formerly VitrA Fix FLEX 0-3)

CONSUMPTION

Approximate consumption (kg/m²) may vary depending on the application surface, tile size and comb size used.

		According to Joint Width Approximate Consumption (gr/m²)		
Tile Dimensions (cm)	Tile Thickness (mm)	2 mm	3 mm	5 mm
10x10	6	400	600	950
20x20	8	275	400	650
30x30	8	175	250	400
30x60	8	140	200	325
45x45	8	125	180	300
60x60	9	100	150	250
60x120	9	80	120	190

PACKAGING

- 20 kg kraft bag
- 5 kg polyethylene packaging

APPLICATION FEATURES

Time to use the mixture (pot life) : 1 hour
Application temperature : +5 °C - +35 °C
Recommended joint width : max. 5 mm
Time to use : 24 hours
Mixing ratio : For 20 kg of powder product 6.2-7.0 liters of water

SURFACE PREPARATION

- Joint gaps must be cleaned of adhesion inhibiting residues and must be completely empty and smooth.
- Joint filling should not be applied before the recommended waiting period after adhesive application.
- For highly absorbent ceramics, in high temperature or extremely windy environments, the joint gaps should be moistened with clean water before application.

APPLICATION

- 20 kg of **VitrA Fix FLEX 0-5** should be added slowly to 6.2-7.0 liters (31-35%) lt clean water and mixed until the mixture is lump-free and homogeneous.
- It is recommended to use a low speed mixer for a lump-free and homogeneous mixture.
- The mixture should have a consistency that will not flow when troweled.
- Allow the mixture to rest for 5 minutes before application and mix again for 1-2 minutes and then apply.
- Absolutely no additional water should be added to the mixture to ensure a flowable consistency.
- The prepared joint filling material should be filled into the joint gaps thoroughly with a rubber spatula or hard rubber-based joint trowel.
- The mortar spread on the surface is filled into the joint gaps diagonally (at an angle of 45 degrees) so that it is diagonal to the joint gaps. Remove excess joint filler from the surface. If the filling process is performed parallel to the joint gaps, separation of the joint filling material from the surface or deterioration and roughening of the surface may be observed.
- Whichever direction the joint filling process is started, the application should be continued in that direction until the filling process is completed. During the joint filling process with a trowel, work in one direction.
- The time for cleaning the joint filler material from the surface is the moment when the joint filler material starts to dry and its surface starts to become dull. This time may vary depending on the ambient conditions, it is normally 10-15 minutes under normal conditions, and it may shorten in hot environments and prolong at low temperatures. To find the appropriate time, touch the joint material residue on the tile with a finger, if the material is very lightly dusted on the finger, it means that it has dried sufficiently for cleaning.
- The residues on the surface are cleaned with diagonal (45 degree angle) movements using a damp sponge. Clean water should be used to moisten the sponge, while the cleaning water for the soiled sponge should be kept separate.
- If there are still joint stains on the surface after the last cleaning, mortar residues on the coating surface can be cleaned with **VitrA Fix NET** at least 10 days after the application. VitrA Fix NET can only be used on acid-resistant tiles (for details, please see the technical product page about **VitrA Fix NET**).

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag. Excess water to be added into the mixture manifests itself in the form of low strength, chalking, point holes in the final product.
- In pool applications, a minimum of 7 days should be waited for the joint material to gain sufficient strength and the pool should be taken into use after this period.
- The waiting time of **VitrA Fix FLEX 0-5** in the container is 1 hour and the waiting time for the first cleaning stage after application is 10-15 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, these times are shortened, depending on the severity of the conditions, this time may be reduced to a few minutes. For this reason, a wetness test should be performed by touching the joint surface with a finger in case of premature drying and film formation. When the mortar does not get on the fingers, proceed to the cleaning stage. Under low temperature and high humidity conditions, drying time may be prolonged.
- Joint filler should be applied at least 3 mm thick. In thinner applications, the joint filling material will be easily scraped off as its strength will be weak.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes occur, depending on the heat-bearing systems and insulation applications, and in applications to be carried out in large areas, depending on the load and pedestrian traffic on the ground, necessary expansion joints should be left on the ground, suitable expansion profiles or joint filling mastics (PU, MS Polymer, silicone, etc. based) should be used for these joints. Cement based products should never be used as expansion joints.
- The joint treated surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.
- The use of general cleaning materials such as bleach, lime remover, etc. may cause damage to colored joint fillers. Joint fillers should be cleaned with **VitrA Fix JOINT CLEANER** product.
- Sapphire Blue, Lava Red, Emerald Green, Amber Yellow, Marine Blue and Prestige Red colors are not recommended to be used as joint filler colors in continuously filled pool applications, despite the fact that they contain intense color pigments in their content and are more likely to give color more easily with pool chemicals.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLEX 2-12

(Formerly VitrA Fix FLEX 3-10)

TS EN 13888 CG2 WA MART 2010

Cement based, high performance, silicone added, elastic hygienic joint filler

- Full color rendering with smooth surface
- Difficult to dirty, easy to clean
- Easy to apply, no cracking and collapse
- Proven bacteria resistant, mold and algae free
- Water repellent and elastic
- High resistance to thermal shock and abrasion

DESCRIPTION

It is a cement-based, silicone-added joint filling material with increased water repellency, high abrasion resistance, high abrasion resistance, cement-based, silicone-added joint filling material used in 2-12 mm joint widths of coating materials such as ceramic tile, porcelain tile, glass mosaic, natural stone, marble, travertine. Does not form cracks with low shrinkage value. Provides easy and fast application.

AREAS OF USE

- For interior and exterior (2-12 mm) joint filling applications of porcelain tile, granite, natural stone, ceramic tile, cotto, marble etc. coating materials
- Underfloor heating floors, terraces, etc. in areas with high temperature changes
- In floor applications exposed to heavy pedestrian traffic such as shopping centers, schools, etc.
- For applications in wet areas such as pools etc. with its water repellent feature

FEATURES

Material structure : High quality cement, elasticizing additives, silicone, fine filler and water repellent agents.

Type	: Powder
Color	: Color chart colors
Density	: 1.40 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Water absorption (after 30 minutes)	: ≤ 2 gr
Water absorption (after 240 minutes)	: ≤ 5 gr
Moisture resistance	: excellent
Alkali resistance	: excellent
Acid resistance	: good (for Ph>3 acids)
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 2.5 MPa (N/mm²)
Flexural strength (freeze-thaw)	: ≥ 2.5 MPa (N/mm²)
Compression strength	: ≥ 15 MPa (N/mm²)
Compression strength (freeze-thaw)	: ≥ 15 MPa (N/mm²)
Abrasion resistance	: ≤ 1000 mm³
Shrinkage value	: ≤ 2 mm/m

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 13888 / CG2, WA class
- G

VitrA Fix FLEX 2-12

(Formerly VitrA Fix FLEX 3-10)

CONSUMPTION

Approximate consumption (kg/m²) may vary depending on the application surface, tile size and comb size used.

		According to Joint Width Approximate Consumption (gr/m²)			
Tile Dimensi-ons (cm)	Tile Thick-ness (mm)	2 mm	3 mm	5 mm	8 mm
10x10	6	400	600	950	1525
20x20	8	275	400	650	1050
30x30	8	175	250	400	650
30x60	8	140	200	325	525
45x45	8	125	180	300	480
60x60	9	100	150	250	400
60x120	9	80	120	190	310

PACKAGING

- 10 and 20 kg kraft bags
- 1 and 5 kg polyethylene packaging

STORAGE AND SHELF LIFE

- For storage, care should be taken to place a maximum of 10 kraft bags on top of each other.
- Product storage conditions should be followed and products should not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year for kraft bags and 2 years for polyethylene bags under appropriate storage conditions. Packages should be tightly closed when not in use.

APPLICATION FEATURES

Mixing ratio	: 5.8-6.6 liters of water for 20 kg of powder product
Time to use the mixture	: 1 hour (pot life)
Application temperature	: +5 °C - +35 °C
Recommended joint width	: 2-12 mm
Time to use	: 24 hours

APPLICATION

- Slowly add 20 kg of **VitrA Fix FLEX 2-12** to 5,8-6,6 liters (29-33%) of clean water and mix until the mixture is homogeneous without lumps.
- The mixture should have a consistency that will not flow when taken on a trowel.
- Allow the mixture to rest for 5 minutes before starting the application and mix again for 1-2 minutes and then apply.
- Absolutely no additional water should be added to the mixture to ensure a flowable consistency.
- The prepared joint filling material should be filled into the joint gaps thoroughly with a rubber spatula or hard rubber-based joint trowel.
- The mortar spread on the surface should be filled diagonally (at a 45 degree angle) into the joint gaps. Remove excess grout from the surface. If the filling process is performed parallel to the joint gaps, separation of the joint filling material from the surface or deterioration and roughening of the surface may be observed.
- Whichever direction the joint filling process is started, the application should be continued in that direction until the filling process is finished. During the joint filling process with a trowel, work in one direction.
- The time to clean the joint filler material from the surface is the moment when the joint filler material starts to dry and its surface starts to become dull. This time may vary depending on the ambient conditions, it is normally 10-15 minutes under normal conditions, and it may shorten in hot environments and prolong at low temperatures. To find the appropriate time, touch the joint material residue on the tile with a finger, if the material is very lightly dusted on the finger, it means that it has dried sufficiently for cleaning.
- Remove surface residues with a damp sponge using diagonal (45 degree angle) movements. Clean water should be used to moisten the sponge, while cleaning water for the soiled sponge should be kept separate.
- If there are still joint stains on the surface after the last cleaning, mortar residues on the coating surface can be cleaned with **VitrA Fix NET** at least 10 days after the application. **VitrA Fix NET** can only be used on acid-resistant tiles (for details, please see the technical product page about **VitrA Fix NET**).

SURFACE PREPARATION

- Joint gaps must be cleaned of adhesion inhibiting residues and must be completely empty and smooth.
- Joint filling should not be applied before the recommended waiting period after adhesive application.
- For highly absorbent ceramics, in high temperature or extremely windy environments, the joint gaps should be moistened with clean water before application.

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag. Excess water to be added into the mixture manifests itself in the form of low strength, chalking, point holes in the final product.
- In pool applications, a minimum of 7 days should be waited for the joint material to gain sufficient strength and the pool should be taken into use after this period.
- The waiting time of **VitrA Fix FLEX 2-12** in the container is 1 hour and the waiting time for the first cleaning stage after application is 10-15 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, these times are shortened, depending on the severity of the conditions, this time may be reduced to a few minutes. For this reason, a wetness test should be performed by touching the joint surface with a finger in case of premature drying and film formation. When the mortar does not get on the fingers, proceed to the cleaning stage. Under low temperature and high humidity conditions, drying time may be prolonged.
- Joint filler should be applied at least 3 mm thick. In thinner applications, the joint filler material will be easily scraped off as its strength will be weak.
- The joint filler surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.
- The use of general cleaning materials such as bleach, lime remover, etc. may cause damage to colored joint sealants. Joint fillers should be cleaned with **VitrA Fix JOINT CLEANER** product.
- Sapphire Blue, Lava Red, Emerald Green and Amber Yellow colors are not recommended to be used as joint filler colors in continuously filled pool applications, despite the fact that they contain intense color pigments in their content and are more likely to give color more easily with pool chemicals.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix RUSTIK 3-20

TS EN 13888 CG2 WA MART 2010

Special purpose, high performance, flexible, joint filler

DESCRIPTION

It is a cement-based, natural-looking and coarse-grained rustic joint filling material that does not collapse and crack. It is used in 3-20 mm joint widths of smooth or random sized coating materials such as natural stone, marble, travarten, large-sized bricks, terracotta tiles, anthracite ceramics and tiles. Provides easy and fast application.

AREAS OF USE

It is used indoors and outdoors, on terraces and balconies, on floors under heavy traffic, on chemically cleaned floors and in horizontal and vertical joint applications of randomly sized natural stone coating materials.

FEATURES

Material structure : High quality cement, coarse filler and water repellent agents.

Type : Powder
Color : Grey
Density : 1.55 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Water absorption (after 30 minutes)	: ≤ 2 gr
Water absorption (after 240 minutes)	: ≤ 5 gr
Moisture resistance	: good
Alkali resistance	: good
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 2.5 MPa (N/mm²)
Flexural strength (freeze-thaw)	: ≥ 2.5 MPa (N/mm²)
Compression strength	: ≥ 15 MPa (N/mm²)
Compression strength (freeze-thaw)	: ≥ 15 MPa (N/mm²)
Abrasion resistance	: ≤ 1000 mm³
Shrinkage value	: ≤ 3 mm/m

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 13888 / CG2, WA class
- G

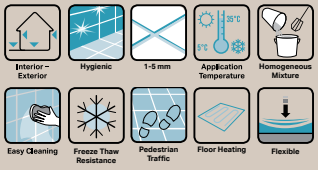
CONSUMPTION

Approximate consumption (kg/m²) may vary depending on the application surface, tile size and comb size used.

		According to Joint Width Approximate Consumption (gr/m²)			
Tile Dimensions (cm)	**Tile Thickness(mm)**	**5 mm**	**10 mm**	**15 mm**	**20 mm**
10x10 cm	6	1000	2050	3070	4090
20x20 cm	8	700	1400	2050	2750
30x30 cm	8	460	910	1370	1820
30x60 cm	8	340	680	1020	1370
45x45 cm	8	300	600	910	1210
60x60 cm	9	260	510	770	1020
60x120 cm	9	190	380	580	770

*Sample consumption.

- Ideal for natural stone paving applications such as garden interiors and walkways,
- Non-cracking and non-collapsing formula,
- Wear resistance and high performance,
- High performance against contamination,
- It is grey in color and easy to apply.



VitrA Fix RUSTIK 3-20

PACKAGING

In 20 kg kraft bags (60 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- For storage, care should be taken to place a maximum of 10 kraft bags on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

APPLICATION FEATURES

Mixing ratio	: 3.6-4 liters of water per 20 kg bag
Mixture handling (working) time	: 1 hour
Application temperature	: +5 °C - +35 °C
Recommended joint width	: Rustic 3-20 mm
Grouting time	: also specified in the type of adhesive used
Opening time for pedestrian traffic	: 24 hours (light pedestrian traffic)

SURFACE PREPARATION

- The depth between the joints should be at least 2/3 of the ceramic thickness.
- Application surfaces should be free from dust, dirt, oil, etc., should be smooth and solid, and should not be too dry or sweating.
- Joint filler should not be applied before the adhesive completes the recommended curing time.
- On unglazed or highly absorbent surfaces, the joint gaps should be wetted with a damp sponge before grouting.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.

APPLICATION

- Slowly add 20 kg of **VitrA Fix RUSTIK 3-20** to 3.6-4.4 liters (18-22%) of clean water and mix until the mixture is lump-free and homogeneous.
- It is recommended to use a low speed mixer for a lump-free and homogeneous mixture.
- The mixture should have a consistency that will not flow when troweled.
- Allow the mixture to rest for 5 minutes before application and apply after mixing again.
- Do not add too much water to the mixture to make the product flowable.
- The prepared joint filling material should be filled into the joint gaps thoroughly with a rubber spatula or hard rubber-based joint trowel.
- The mortar spread on the surface is filled into the joint gaps diagonally (at an angle of 45 degrees) so that it is diagonal to the joint gaps. Remove excess grout from the surface. If the filling process is performed parallel to the joint gaps, separation of the joint filling material from the surface or deterioration and roughening of the surface may be observed.
- Whichever direction the joint filling process is started, the application should be continued in that direction until the filling process is finished. During the joint filling process with a trowel, work in one direction.
- To achieve a smooth, aesthetic appearance: Fill the joint filler abundantly so that it overflows into the joint gaps and wait a few minutes for the surfaces to absorb the material. The material overflowing between the joints should be shaved. To obtain a smooth appearance, the surface should be smoothed by going over the joints with a joint pen. After the joint material has dried (24 hours), the joint surfaces should be cleaned with a stiff brush.
- To achieve a grainy appearance: Fill the joint filler material diagonally between the joints with a rubber scraper (gelberi) and wait for a few minutes for the surfaces to absorb the material. The overflowing material between the joints should be shaved and the surface of the coating should be wiped with a damp sponge.
- The time to clean the joint filling material from the surface is the moment when the joint filling material starts to dry and its surface starts to become dull. This time may vary depending on the ambient conditions, it is normally 10-15 minutes under normal conditions, and it may shorten in hot environments and lengthen at low temperatures. To find the appropriate time, touch the joint material residue on the tile with a finger, if the material is very lightly dusted on the finger, it means that it has dried sufficiently for cleaning.
- The residues on the surface are cleaned with diagonal (45 degree angle) movements using a damp sponge. Clean water should be used to moisten the sponge, while the cleaning water for the soiled sponge should be kept separate.
- If a watery sponge is used for cleaning, excess water in the environment will remain on the surface of the applied joint sealant material and cause undesirable strength losses, chalking (blending, color fluctuations), point holes or collapses in the final product.
- Final cleaning is carried out one day later at the latest, when the material has dried. The tiles are cleaned with a dry and clean cloth. The cleaning cloth is applied in a circular motion to remove any excess grouting material remaining on the tile. During the cleaning process, the joint filler material applied should not be deformed.
- If there are still joint stains on the surface after the last cleaning, mortar residues on the coating surface can be cleaned with **VitrA Fix NET** at least 10 days after the application. **VitrA Fix NET** can only be used on acid-resistant tiles (for details, please see the technical product page about **VitrA Fix NET**).
- If the joint is cleaned from the surface early or late, color fluctuations, deformations and scratches may occur on the surface.
- In very hot, dry or windy weather, it is recommended to wet the surface a few hours after joint application. This will increase the ultimate strength of the joint material.

PRECAUTIONS

- If hardening or petrification is detected after opening the bags, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag. Excess water to be added to the mixture will show itself in the final product as low strength, chalking and point holes.
- After the mortar is prepared with the appropriate amount of water, excess water or powder should not be added to the mixture.
- In pool applications, a minimum of 7 days should be waited for the joint material to gain sufficient strength and the pool should be taken into use after this period.
- The waiting time of **VitrA Fix RUSTIK 3-20** in the container is 1 hour and the waiting time for the first cleaning stage after application is 10-15 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, these times are shortened, depending on the severity of the conditions, this time may be reduced to a few minutes. For this reason, a wetness test should be performed by touching the joint surface with a finger in case of premature drying and film formation. When the mortar does not get on the fingers, proceed to the cleaning stage. Under low temperature and high humidity conditions, the drying time may be longer.
- Joint filler should be applied at least 3 mm thick. In thinner applications, the joint filler material will be easily scraped as its strength will be weak.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes occur, depending on the heat-bearing systems and insulation applications, in applications to be made in large areas, depending on the load and pedestrian traffic on the ground, necessary expansion joints should be left on the ground, suitable expansion profiles or joint sealants (PU, MS Polymer, silicone etc. based) should be used for these joints. Cement based products should never be used as expansion joints.
- - The use of general cleaning materials such as bleach, lime remover, etc. may cause damage to colored joint sealants. Joint fillers should be cleaned with **VitrA Fix GROUT CLEANER** product.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix POOL G 2-10

TS EN 13888 CG2 WA MART 2010

Cement based, high performance, chemical resistant, elastic, hygienic joint filler

DESCRIPTION

It is a fast drying, cement based joint filling material with increased water repellency, resistant to solvents, weak acids and bases, resistant to solvents, weak acids and bases, used in 2-10 mm joint widths of coating materials such as ceramic tile, porcelain tile, glass mosaic, natural stone, marble, travertine. Ready to use 3 hours after application. Does not form cracks with low shrinkage value. Provides easy and fast application.

AREAS OF USE

- In wet areas such as pools, water tanks, baths, etc. with its high water repellent feature,
- In industrial areas requiring chemical resistance against solvents, weak acids and bases,
- In salt and sulfate water tanks,
- Underfloor heating on demanding floors such as terraces, terraces, shopping malls, hotels, etc,
- Ideal for joint filling applications between 2-10 mm of porcelain ceramic, granite ceramic, natural stone, ceramic, cotto, marble, glass mosaic etc. coating materials.

FEATURES

Material structure : High quality cement, elasticizing additives, fine filler and water repellent agents.

Type	: Powder
Color	: Color chart colors
Density	: 1.40 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Water absorption (after 30 minutes)	: ≤ 2 gr
Water absorption (after 240 minutes)	: ≤ 5 gr
Moisture resistance	: excellent
Alkali resistance	: excellent
Acid resistance	: good (for Ph>3 acids)
Temperature resistance	: -30 °C - +70 °C
Bending strength	: ≥ 2.5 MPa (N/mm²)
Bending strength (freeze-thaw)	: ≥ 2.5 MPa (N/mm²)
Compression strength	: ≥ 15 MPa (N/mm²)
Compression strength (freeze-thaw)	: ≥ 15 MPa (N/mm²)
Abrasion resistance	: ≤ 1000 mm³
Shrinkage value	: ≤ 2 mm/m

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 13888 / CG2, WA class
- G
- Public Works POS. No 10.300.2232

- Special formula for pools and areas requiring chemical resistance,
- Improved Chemical Resistance
- Proven Bacteria Resistance
- High abrasion and crack resistance

VitrA Fix POOL G 2-10

CONSUMPTION

Approximate consumption (kg/m²) may vary depending on the application surface, tile size and comb size used.

		According to Joint Width Approximate Consumption (gr/m²)			
Tile Dimensions (cm)	Tile Thickness (mm)	2 mm	3 mm	5 mm	8 mm
10x10	6	400	600	950	1525
20x20	8	275	400	650	1050
30x30	8	175	250	400	650
30x60	8	140	200	325	525
45x45	8	125	180	300	480
60x60	9	100	150	250	400
60x120	9	80	120	190	310

PACKAGING

In 15 kg plastic buckets (44 pieces per pallet / 660 kg)

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

APPLICATION FEATURES

Mixing ratio	: 3.3-3.6 liters of water per 15 kg package
Mixture use time	: Maximum 45 minutes (pot life)
Application temperature	: +5 °C - +35 °C
Recommended joint width :	2-10 mm
Jointing time	: also specified in the type of adhesive used.
Time to use	: 3 hours

SURFACE PREPARATION

- Joint gaps must be cleaned of adhesion inhibiting residues and must be completely empty and smooth.
- Joint filling should not be applied before the recommended waiting period after adhesive application.
- For highly absorbent ceramics, in high temperature or extremely windy environments, the joint gaps should be moistened with clean water before application.

APPLICATION

- Slowly add 15 kg of **VitrA Fix POOL G 2-10** to 3.3-3.6 liters (22-24%) of clean water and mix until the mixture is lump-free and homogeneous.
- It is recommended to use a low speed mixer for a lump-free and homogeneous mixture.
- The mixture should have a consistency that will not flow when taken on the trowel.
- Allow the mixture to rest for 5 minutes before application and apply after mixing again.
- Absolutely no additional water should be added to the mixture to ensure a flowable consistency.
- The prepared joint filling material should be filled into the joint gaps with a rubber spatula or a hard rubber-based joint trowel.
- The mortar spread on the surface should be filled diagonally (at a 45 degree angle) into the joint gaps. Remove excess grout from the surface. If the filling process is performed parallel to the joint gaps, separation of the joint filling material from the surface or deterioration and roughening of the surface may be observed.
- Whichever direction the joint filling process is started, the application should be continued in that direction until the filling process is completed. During the joint filling process with a trowel, work in one direction.
- The time to clean the joint filling material from the surface is the moment when the joint filling material starts to dry and its surface starts to become dull. This time may vary depending on the ambient conditions, it is 10-15 minutes under normal conditions, and it may shorten in hot environments and prolong at low temperatures. To find the appropriate time, touch the joint material residue on the tile with a finger, if the material is very lightly dusted on the finger, it means that it has dried sufficiently for cleaning.
- The residues on the surface are cleaned with diagonal (45 degree angle) movements using a damp sponge. Clean water should be used to moisten the sponge, while the cleaning water for the soiled sponge should be kept separate.
- If there are still joint stains on the surface after the last cleaning, mortar residues on the coating surface can be cleaned with **VitrA Fix NET** at least 10 days after the application. **VitrA Fix NET** can only be used on acid-resistant tiles (for details, please see the technical product page about **VitrA Fix NET**).

PRECAUTIONS

- Since it has a fast-setting structure, attention should be paid to sudden set during application.
- Since it will set quickly, care should be taken when applying under the sun and at high temperatures.
- If hardening or petrification is detected after the bags are opened, the product should not be used.
- Do not add more or less water to the mixture than the amount of water indicated on the bag. Excess water added to the mixture will show itself as low strength, chalking and point holes in the final product.
- After the mortar is prepared with the appropriate amount of water, excess water or powder should not be added to the mixture.
- In pool applications, a minimum of 7 days should be waited for the joint material to gain sufficient strength and the pool should be taken into use after this period.
- The waiting time of **VitrA Fix POOL G 2-10** in the container is 45 minutes and the waiting time for the first cleaning stage after application is 10-15 minutes. However, under unfavorable ambient conditions (high temperature, dry air and strong wind) or on surfaces with high absorbency, these times are shortened, depending on the severity of the conditions, this time may be reduced to a few minutes. For this reason, a wetness test should be performed by touching the joint surface with a finger in case of premature drying and film formation. When the mortar does not get on the fingers, the cleaning stage should be started. Under low temperature and high humidity conditions, the drying time may be longer.
- Joint filler should be applied at least 3 mm thick. In thinner applications, the joint filler material will be easily scraped as its strength will be weak.
- The joint filler surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix EPOXY ULTRA

TS EN 13888 RG MART 2010

Epoxy resin based, high performance, chemical resistant, solvent free, 2 component adhesive and joint filler

DESCRIPTION

Two-component, solvent-free epoxy resin based, acid, alkali and chemical resistant, water impermeable, hygienic joint filling material suitable for ceramic tile surfaces. Can be used in 2-10 mm joint widths of all kinds of floor covering materials. Hygienic, dirt repellent and easy to clean with cold water. It has hardening feature without cracking.

AREAS OF USE

- In industrial facilities such as food production, hospitals, laboratories, auto service etc. where high chemical and mechanical resistance is required,
- Commercial kitchens, restaurants, cafes, etc. where hygiene is required,
- Suitable for use in waste water treatment plants and thermal pools.
- Acid resistant porcelain tiles, granite ceramics, cotto, marble etc. in 2-10 mm joint filling applications of coating materials.

FEATURES

Material structure :

- Component (A)	: Epoxy resin based putty
- component (B)	: Hardening paste
Type	: Component (A) + Component (B)
Color	: Grey / white / beige / anthracite
Density	: 1.70 ± 0.1 gr/cm³ (A+B mixture)

TECHNICAL PERFORMANCE*

Water absorption (after 240 minutes)	: ≤ 0.1 g
Moisture resistance	: excellent
Temperature resistance	: -20 °C - +80 °C
Bending strength	: ≥ 30 MPa (N/mm²)
Compression strength	: ≥ 45 MPa (N/mm²)
Abrasion resistance	: ≤ 250 mm³
Shrinkage value	: ≤ 1.5 mm/m

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 13888 / RG class.
- G
- Bayindir pos. No: 10.300.2233

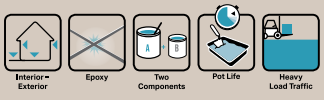
CONSUMPTION

Approximate consumption (kg/m²) may vary depending on the application surface, tile size and comb size used.

		Derz Genişliğine Göre Yaklaşık Tüketim (gr/m²)		
Karo Ebatları (cm)	**Karo Kalınlığı (mm)**	**2 mm**	**3 mm**	**5 mm**
10X10	6	450	675	1125
20X20	8	300	450	750
30X30	8	200	300	500
30X60	8	150	225	375
45X45	8	135	200	335
60X60	9	115	170	280
60X120	9	85	130	210

*Sample consumption.

- Can also be used as an adhesive
- High mechanical and chemical resistance
- High resistance to external weather conditions and thermal shocks
- Resistant to bacteria, mold growth and contamination
- Water-based, environmentally friendly formula



VitrA Fix EPOXY ULTRA

PACKAGING

5 kg plastic bucket (4 kg component A + 1 kg component B) (75 pieces / 375 kg per pallet)

STORAGE AND SHELF LIFE

- For storage, maximum 4 plastic buckets should be placed on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.
- Storage below 12 °C is not recommended as crystallization may occur in the product stored at low temperatures. Crystallization formation may make the application of the product difficult. For this reason, products stored below +12 °C should be kept at +23 °C room temperature for 1-2 days before application.

APPLICATION FEATURES

Mixture use time (Pot life)	: 50 minutes at +20 °C, 40 minutes at +30 °C,
Application temperature	: +12 °C - +30 °C
Recommended joint width	: 2-10 mm
Time to use	: 24 hours
Waiting time for chemical resistance	: 7-8 days

SURFACE PREPARATION

- Joint gaps must be cleaned of adhesion inhibiting residues and must be completely empty and smooth.
- Joint filler should not be applied before the recommended waiting period after adhesive application is completed.
- It should be ensured that the application surface humidity is maximum 5%.

APPLICATION

- Component A and Component B should be mixed in the same bucket for a minimum of 3 minutes until the mixture is homogeneous and free of lumps.
- No additives other than the components should be added to the mixture and the ratio of Component A and Component B should not be changed.
- The mixture should have a consistency that will not flow when taken on the trowel.
- The prepared joint filling material should be filled into the joint gaps with a rubber spatula or steel trowel. During the application, the mortar should not spread on the tile surface like cement based joint fillers and should not overflow out of the joint gaps as much as possible (product consumption can be reduced and final cleaning is easier). Remove excess joint filling material from the surface.
- The time to clean the joint filler material from the surface is the moment when the surface of the joint filler material starts to become dull. This time may vary depending on the ambient conditions, normally 40 minutes at an ambient temperature of +20 °C, whereas it may shorten in a hot environment and prolong at low temperatures. To find the appropriate time, touch the joint material residue on the tile with your finger, if the joint material is slightly smeared on the finger, the material has dried sufficiently for cleaning.
- Clean water should be used for cleaning.
- It is recommended to use special cleaning pads for epoxy applications for cleaning. In the first stage, rough cleaning is done with a thick filled pad. The application should be done with circular movements to prevent the joint filling material from separating from the surface or deforming.
- In the second stage, fine cleaning is performed with a thin-filled pad. The application is done as in the first stage.
- In the final cleaning stage, the residues on the surface are removed with diagonal (45 degree angle) movements using a damp sponge. Clean water should be used to moisten the sponge, while cleaning water for the soiled sponge should be kept separate. If the surface feels sticky to the touch, the final cleaning step should be repeated with a damp sponge.

PRECAUTIONS

- Water or any additive other than the components should never be added to the mixture and the mixing ratio of components A and B should not be changed.
- After mixing the A and B components, the product can be divided into 2-3 parts and applied separately to prevent rapid freezing of the mortar.
- In pool and industrial floor applications, a minimum of 7 days should be waited for the joint material to gain sufficient strength.
- The usability time of **VitrA Fix EPOXY ULTRA** may vary under unfavorable ambient conditions, but this time can be reduced to 10-15 minutes under higher temperature ambient conditions. For this reason, a wetness test should be performed by touching the joint surface with a finger in case of premature hardening. When the mortar does not get on the fingers, the cleaning stage should be started.
- In applications to be made in large areas, necessary expansion joints should be left considering the thermal stress and mechanical loads that may occur on the floors, and suitable expansion profiles or mastics (PU, MS Polymer, silicone etc. based) should be used for these joints.
- The joint treated surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.
- Depending on weather conditions and sunlight (UV), discoloration and yellowing of the hardened joint sealant material may occur. This is a natural behavior of epoxy resin based products, there is no loss of performance in the product.
- In case of prolonged exposure to some substances with chemical effects (e.g. continuous contact with high concentration acids), discoloration may occur.
- Application between joints of porous materials such as terracotta etc. is not recommended without taking precautions against staining.
- In industrial floor applications, the acid or alkali balance in the environment must be strictly controlled. The effect of chemical products in the environment on the epoxy joint filling material should be checked from the Chemical Resistance Table.

SAFETY INSTRUCTIONS

- **VitrA Fix EPOXY ULTRA** contains epoxy resin and amine hardener.
- Avoid contact with skin and eyes. Contact areas should be washed with plenty of water.
- It is recommended to use rubber gloves and protective goggles during product application.
- The product should not be inhaled directly. Depending on the ambient temperature, the product vapor that enters the air by evaporation should never be inhaled. A mask should be used when necessary. The environment must be ventilated during application.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix EPOXY CHEMICAL RESISTANCE TABLE

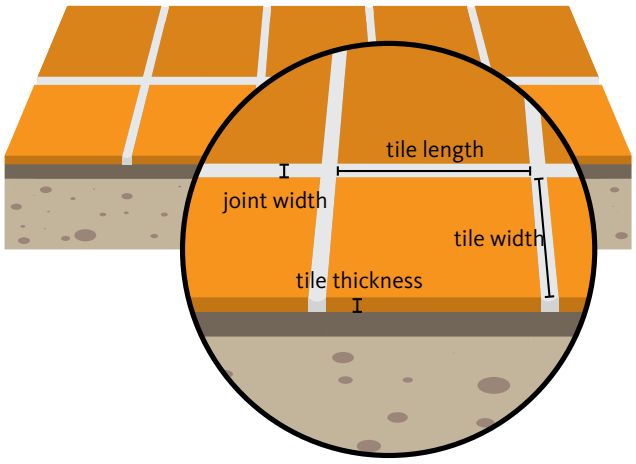
* Indicates color change.
\+ Durable; joint will not deteriorate in case of permanent impact.
(+) Limited durability; durable in case of temporary effect.
-- Not durable; deterioration of the joint sealant occurs after a relatively short period of action, i.e. within 24 hours. In case of prolonged action, discoloration may occur in special cases (e.g. when high concentrations of acids are used).

ALKALI RESISTANCE		
CHEMICAL NAME	CONCENTRATION	RESISTANCE
Sodium Hydroxide	50%	+
Potassium Hydroxide	30%	+
Bleach*	5%	(+)
Salt Water	Doymuş	+
Sugar Water	Doymuş	+
Hydrogen Peroxide	1%	+
Potassium Permanganate	5%	(+)
Aqueous Ammonia	25%	+
Sodium Silicate		+
ACID RESISTANCE		
CHEMICAL NAME	CONCENTRATION	RESISTANCE
Acetic Acid	2,5%	-
Hydrochloric Acid*	37%	(+)
Citric Acid	10%	+
Formic Acid*	2,5%	+
Oxalic Acid	10%	+
Lactic Acid	2,50%	-
Phosphoric Acid*	50%	(+)
Sulfuric Acid*	50%	+
Chromic Acid*		+
Mineral Water		+
Lemon Juice*		+
Coke*		+
Descaler*		(+)
SOLVENT RESISTANCE		
CHEMICAL NAME	CONCENTRATION	RESISTANCE
Glycerin		+
Methanol		+
Formaldehyde	%37	+
Triethanolamine		+
Tricholoroethylene		-
Monopropylene Glycol		+
Synthetic Thinner		+
Acetone		+
OIL RESISTANCE		
Olive Oil		+

JOINT FILLER COLOR CHART

COLORS \ PRODUCTS	1-6	FLEX 0-5		FLEX 2-12				POOL G 2-10	RUSTIK 3-20	EPOXY ULTRA
	20 kg	20 kg	5 kg	20 kg	10 kg	5kg	1 kg	15 kg	20 kg	5 kg
WHITE	○	○	○	○	○	○	○	○		○
CREAM	○	○	○	○	○	○	○			
WHITE MOSS GREY			○							
JASMIN		○	○	○	○	○	○			
BEIGE	○	○	○	○	○	○	○			○
BAHAMA BEIGE			○			○	○			
SAHARA BEIGE		○	○	○	○	○	○			
WHITE CLAY BEIGE			○							
CLAY BEIGE			○							
MOSS GREY			○							
EFES BEIGE		○	○	○	○	○	○			
LAVA RED			○							
GREEN			○			○	○			
AMBER YELLOW			○							
SAFIR BLUE			○							
ICE GREY	○	○	○	○	○	○	○			
ASH GREY			○							
SILVER	○	○	○	○	○	○	○	○	○	○
DARK GREY		○	○	○	○	○	○	○		
ANTHRACITE			○			○	○			○
BLACK			○			○	○			
STARDUST			○			○	○			
TERRA ROSSA			○							
MOKA BROWN			○			○	○			
EMERALD GREEN			○							
MARINE BLUE			○							
PRESTIGE RED			○							

JOINT FILLER MATERIAL CONSUMPTION CALCULATION



$$\text{Joint filler consumption } (kg/m^2) = \frac{(A + B) \times C \times D \times E}{(A \times B)}$$

A : Tile length (mm)
B : Tile width (mm)
C : Tile thickness (mm)
D : Joint width (mm)

E : Density factor
- 1-6 : 1,4
- FLEX 0-5 : 1,4
- FLEX 2-12 : 1,4
- POOL G 2-10 : 1,4
- RUSTIK 3-20 : 1,5
- EPOXY ULTRA : 1,7

* Since there may be product losses in practice, it is recommended to consider 10% more than the consumption value.

VitrA Fix PROOF S

Cement based, 2-component, semi-elastic waterproofing material

DESCRIPTION

It is a two-component (liquid + powder), cement-based, semi-elastic waterproofing material that provides water impermeability. It is applied to the surface for waterproofing before tile coating materials in volumes exposed to water and humidity.

AREAS OF USE

- Especially in wet areas such as bathrooms, wc, kitchens etc. before ceramic application,
- On balconies and small-sized terraces,
- Indoor and outdoor waterproofing applications on cement based surfaces such as concrete, plaster, screed etc.

FEATURES

Material structure
-powder component (A) : High-quality cement, additives for high elasticity and water repellency, auxiliaries for superior adhesion materials.
-liquid component (B) : Synthetic resin
Type : Powder (component A) + Liquid (component B)
Color : Grey (powder component A) / white (liquid component B)
Density : 1.80 ± 0.1 gr/cm³ A+B mixture

TECHNICAL PERFORMANCE*

Temperature resistance	: -30 °C - +70 °C
Initial tensile bond strength	: ≥ 0.5 N/mm²
Tensile strength after contact with water	: ≥ 0.5 N/mm²
Tensile strength after heat aging	: ≥ 0.5 N/mm²
Tensile strength after freeze-thaw	: ≥ 0.5 N/mm²
Water impermeability	: ≥ 1.5 bar (positive side)
Crack bridging	: ≥ 0.75 mm

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 14891,
- CE

CONSUMPTION

- 1.4-1.6 kg/m² for 1 mm thickness.

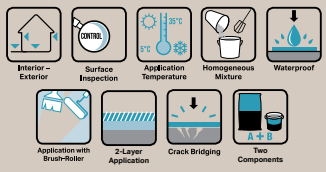
PACKAGING

- Set of 20 kg kraft bags (powder component A) + 5 kg plastic drums (liquid component B).

STORAGE AND SHELF LIFE

- For storage, maximum 10 kraft bags should be placed on top of each other.
- Product storage conditions should be followed and products should not be stored in damp and waterlogged warehouses. Products should be stored at temperatures between +5 °C - +30 °C.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- The ideal solution for waterproofing under ceramic tiles in residential buildings
- Non-corrosive and non-toxic
- Suitable for horizontal and vertical application
- Easy to apply



VitrA Fix PROOF S

APPLICATION FEATURES

Pot life	: Max 3 hours
Application temperature	: +5 °C - +35 °C
Application thickness	: 2-3 mm
Waiting time between layers	: Min. 6 hours
Waiting time before ceramic application	: Min. 2 days
Time to gain mechanical strength	: 2 days
Waterproofing time	: 7 days

APPLICATION SURFACES

It can be applied on cement based surfaces such as concrete, plaster and mortar.

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- Before starting the waterproofing process, **VitrA Fix FILM** primer material should be applied to the surface in order to balance the absorbency of the surface and increase the adhesion adherence. Wait minimum 3 hours for the primer to dry.
- Before application on non-absorbent surfaces, the surface should be primed with **VitrA Fix FILM PLUS.**
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- **VitrA Fix PROOF S** is not a filling material. Accordingly, the application surfaces must be smooth. If there are 2 mm deviations from the surface smoothness under a 2 m gauge, the necessary repairs should be made before application by using **VitrA Fix RM 20** vertically or **VitrA Fix S 30** horizontally.

APPLICATION

- Slowly add 20 kg of powder component to 5 kg of liquid component.
- Mix with a low speed mixer (400 rpm) until the mixture is homogeneous and free of lumps.
- Allow the mixture to rest for 3 minutes before application and apply after mixing again.
- The prepared mixture should be applied to the surface with a brush or roller in minimum 2 coats. When applying the first coat from right to left or from top to bottom, chamfer tape should be used at wall-floor joints.
- 6 hours after the first coat application, the 2nd coat should be applied in the opposite direction of the first coat application. The main purpose here is to cover the surface with all the material.
- The next stage after waterproofing should be started at least 2 days later.
- The times given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- The mixing ratios of components A and B are indicated on the packaging; they should not be mixed in any other ratio.
- If hardening or petrification is detected after opening the packages, the product should not be used.
- Water should never be added to the mixture.
- Do not apply directly on metal, rubber, PVC, mineflo, wood, cement based particle board, gas concrete, underfloor heating, painted and tiled surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given along the surface in the direction of the water drain in order to prevent water accumulation on the surface.
- The working time of **VitrA Fix PROOF S** is shortened under unsuitable environmental conditions (high temperature, dry air and strong wind). In low temperature and high humidity ambient conditions, the time can be extended.
- **VitrA Fix PROOF S** is a waterproofing material developed for under-coating applications. It should not be left open, it must be covered with a suitable coating material.
- The applied surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.
- In order to increase resistance on surfaces that will be exposed to water pressure, waterproofing application can be done together with reinforcement reinforcement (alkali resistant reinforcement mesh etc.). After the first coat is applied, the reinforcement is embedded into the first coat while it is still wet. After the first coat dries, the second coat is applied.
- The surface should not be exposed to direct sunlight after application.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix PROOF

Cement based, 2-component, elastic waterproofing material

DESCRIPTION

It is a two-component (liquid + powder), cement-based, high quality, fully elastic waterproofing material that provides water impermeability. It is applied to the surface for under-ceramic waterproofing before tile coating materials in volumes exposed to water and humidity.

AREAS OF USE

- Before ceramic application in wet areas such as bathrooms, wc etc.
- Balconies and terraces,
- Pool, water tank, etc. in areas with permanent wet areas,
- Indoor and outdoor waterproofing applications on cement based surfaces such as concrete, plaster, screed etc.

FEATURES

Material structure
-powder component (A) : High quality cement, additives providing high elasticity and water repellency, auxiliary materials providing superior adhesion properties.
-liquid component (B) : Synthetic resin
Type : Powder (component A) + Liquid (component B)
Color : Grey (powder component A) / white (liquid component B)
Density : 1.80 ± 0.1 gr/cm³ (mixture)

TECHNICAL PERFORMANCE*

Temperature resistance	: -30 °C - +70 °C
Initial tensile bond strength	: ≥ 0.5 N/mm²
Tensile strength after contact with water	: ≥ 0.5 N/mm²
Tensile strength after heat aging	: ≥ 0.5 N/mm²
Tensile strength after freeze-thaw	: ≥ 0.5 N/mm²
Water impermeability (positive side for 3 mm thickness)	: 1.5 bar
Crack bridging	: ≥ 1 mm

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 14891
- CE

CONSUMPTION

- Approximate consumption 1.4-1.6 kg/m2 for 1 mm thickness

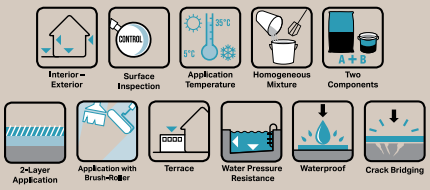
PACKAGING

- Set of 25 kg kraft bags (powder component A) + 8 kg plastic drums (liquid component B).

STORAGE AND SHELF LIFE

- For storage, care should be taken to place a maximum of 10 kraft bags on top of each other.
- Product storage conditions should be followed and products should not be stored in damp and waterlogged warehouses. Products should be stored at temperatures between +5 °C - +30 °C.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Elastic
- Suitable for contact with drinking water
- Suitable for horizontal and vertical application
- Ease of implementation
- Freeze-thaw resistance
- Non-corrosive and non-toxic
- Crack bridging capability, fiber reinforced



VitrA Fix PROOF

APPLICATION FEATURES

Pot life	: Max 5 hours
Application temperature	: +5 °C , + 35 °C
Application thickness	: 2-3 mm
Waiting time between floors	: minimum 6 hours
Waiting time before ceramic application	: min 2 days
Time to gain mechanical strength	: 2 days
Waterproofing time	: 7 days

APPLICATION SURFACES

It can be applied on cement-based and gypsum-based surfaces such as concrete, plaster, mortar.

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- Before starting the waterproofing process, **VitrA Fix FILM** primer material should be applied to the surface in order to balance the absorbency of the surface and increase the adhesion adherence. Wait at least 1 hour for the primer to dry.
- Before application on non-absorbent surfaces, the surface should be primed with **VitrA Fix FILM PLUS.**
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- **VitrA Fix PROOF** is not a filling material. Accordingly, the application surfaces must be smooth. If there are deviations of 2 mm from the surface smoothness under a 2 m gauge, the necessary repairs should be made using **VitrA Fix RM 20** vertically or **VitrA Fix S 30** horizontally before application.

APPLICATION

- 2 Slowly add 5 kg of the powder component to 8 kg of the liquid component.
- Mix with a low speed mixer (400 rpm) until the mixture is homogeneous and free of lumps.
- Allow the mixture to rest for 3 minutes before application and apply after mixing again.
- The prepared mixture should be applied to the surface with a brush or roller in minimum 2 coats. When applying the first coat from right to left or from top to bottom, chamfer tape should be used at wall-floor joints.
- 6 hours after the first coat application, the 2nd coat should be applied in the opposite direction of the first coat application. The main purpose here is to cover the surface with all the material.
- The next stage after waterproofing should be started at least 2 days later.
- The times given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- The mixing ratios of components A and B are indicated on the packaging; they should not be mixed in any other ratio.
- If hardening or petrification is detected after opening the packages, the product should not be used.
- Never add excess water to the mixture.
- Do not apply directly on metal, rubber, PVC, mineflo, wood, cement based particle board, gas concrete, underfloor heating, painted and tiled surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the minimum curing time is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given along the surface in the direction of the water drain in order to prevent water accumulation on the surface.
- The working time of **VitrA Fix PROOF** is shortened under unsuitable environmental conditions (high temperature, dry air and strong wind). In low temperature and high humidity ambient conditions, the time can be extended.
- **VitrA Fix PROOF** is a waterproofing material developed for undercoating applications. It should not be left open, it must be covered with a suitable coating material.
- The applied surfaces should be protected from direct sunlight, frost and rain for at least 24 hours.
- In order to increase resistance on surfaces that will be exposed to water pressure, waterproofing application can be done together with reinforcement reinforcement (alkali resistant reinforcement mesh etc.). After the first coat is applied, the reinforcement is embedded into the first coat while it is still wet. After the first coat dries, the second coat is applied.
- The surface should not be exposed to direct sunlight after application.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix PROOF F

Cement based, 2-component, fully elastic, waterproofing material

DESCRIPTION

It is a 2-component (liquid+powder), cement-based, fully elastic waterproofing material with superior adhesion properties. It is applied to the surface for waterproofing against positive pressure under ceramic tiles before tile coating materials in volumes exposed to water and humidity.

AREAS OF USE

- In large-sized terrace applications,
- Olympic pools, water tanks, etc. in areas with permanent wet areas
- Foundation and curtain walls,
- Indoor and outdoor waterproofing applications on cement based surfaces such as concrete, plaster, screed etc.

FEATURES

Material structure
-powder component (A): High quality cement, high elasticity and water repellency additives, auxiliary additives that provide superior adhesion materials.
-liquid component (B) : Synthetic resin

Type	: Powder (component A) + Liquid (component B)
Color	: Grey (powder component A) / white (liquid component B)
Density	: 1.80 ± 0.1 gr/cm³ (mixture)

TECHNICAL PERFORMANCE*

Temperature resistance	: -40 °C - +80 °C
Initial tensile bond strength	: ≥ 0.5 N/mm₂
Tensile strength after contact with water	: ≥ 0.5 N/mm²
Tensile strength after heat aging	: ≥ 0.5 N/mm²
Tensile strength after freeze-thaw	: ≥ 0.5 N/mm²
Water impermeability	: ≥7 bar (positive)
Crack bridging (positive side for 3 mm thickness)	: 1.25 mm

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 14891
- CE

CONSUMPTION

- Approximate consumption 1.4-1.6 kg/m² for 1 mm thickness

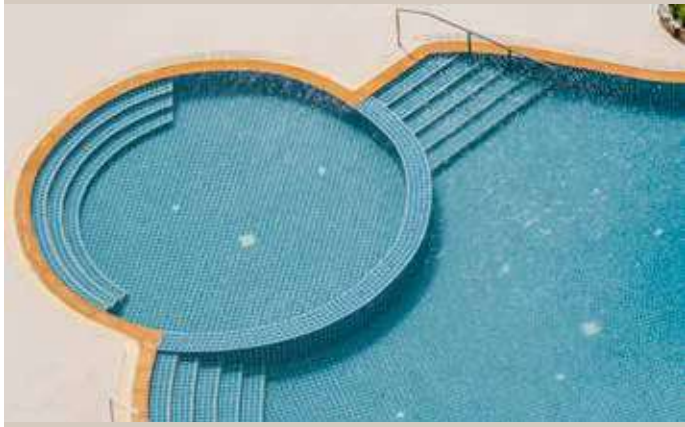
PACKAGING

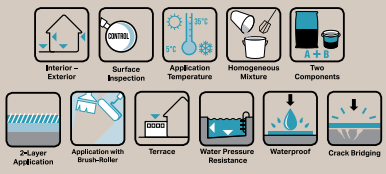
- Set of 20 kg kraft bags (powder component A) + 10 kg plastic drums (liquid component B).

STORAGE AND SHELF LIFE

- Care should be taken to place maximum 10 kraft bags on top of each other for storage.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Products should be stored at temperatures between +5 °C - +30 °C.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- - Packages should be tightly closed when not in use.

- High elasticity and adhesion strength
- Suitable for horizontal and vertical application
- Ease of implementation
- Non-corrosive and non-toxic
- Suitable for contact with drinking water
- High freeze-frost resistance, fiber reinforced
- High crack bridging capability on surfaces subject to movement





VitrA Fix PROOF F

APPLICATION FEATURES

Mixing ratio	: 20 kg (powder component A) + 10 kg (liquid component B)
Pot Life : Max	. 5 hours
Application temperature	: +5 °C - +35 °C
Application thickness	: 2-3 mm
Waiting time between floors	: minimum 6 hours
Waiting time for ceramic application	: min 2 days.
Time to gain mechanical strength	: 2 days
Waterproofing time	: 7 days.

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- Before starting the waterproofing process, **VitrA Fix FILM** primer material should be applied to the surface in order to balance the absorbency of the surface and increase the adhesion adherence. Wait at least 1 hour for the primer to dry.
- Before application on non-absorbent surfaces, the surface should be primed with **VitrA Fix FILM PLUS.**
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moisturizing the surface with water sprinkling method.
- **VitrA Fix PROOF F** is not a filling material. Accordingly, the surfaces to be applied must be smooth. If there are deviations of 2 mm from the surface smoothness under a 2 m gauge, the necessary repairs should be made before application using **VitrA Fix RM 20** vertically or **VitrA Fix S 30** horizontally.

APPLICATION

- Slowly add 20 kg of powder component to 10 kg of liquid component.
- Mix with a low speed mixer (400 rpm) until the mixture is homogeneous and free of lumps.
- Allow the mixture to rest for 3 minutes before application and apply after mixing again.
- The prepared mixture should be applied to the surface with a brush or roller in minimum 2 coats.
- When applying the first coat from right to left or from top to bottom, chamfer tape should be used at wall-floor joints.
- 6 hours after the first coat application, the 2nd coat should be applied in the opposite direction of the first coat application. The main purpose here is to cover the surface with all the material.
- The next stage after waterproofing should be started at least 2 days later.
- The times given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

APPLICATION SURFACES

- It can be applied on cement based surfaces such as concrete, plaster and mortar.

PRECAUTIONS

- The mixing ratios of components A and B are indicated on the packaging; they should not be mixed in any other ratio.
- If hardening or petrification is detected after opening the packages, the product should not be used.
- Water should never be added to the mixture.
- Do not apply directly on metal, rubber, PVC, mineflo, wood, cement based particle board, gas concrete, underfloor heating, painted and tiled surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- Not to be used on surfaces with high humidity.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given along the surface in the direction of the water drain in order to prevent water accumulation on the surface.
- - The working time of **VitrA Fix PROOF F** is shortened under unsuitable environmental conditions (high temperature, dry air and strong wind). In low temperature and high humidity ambient conditions, the time can be extended.
- **VitrA Fix PROOF F** is a waterproofing material developed for under-coating applications. It should not be left open, it must be covered with a suitable coating material.
- Protect the treated surfaces from direct sunlight, frost and rain for at least 24 hours.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes are experienced, necessary expansion joints should be left on the floor, depending on the load and pedestrian traffic on the floor in applications to be made in large areas, depending on the heat-bearing systems and insulation applications, and suitable expansion profiles or joint filling mastics (PU, MS Polymer, silicone, etc. based) should be used for these joints.
- In order to increase the resistance on surfaces that will be exposed to water pressure, waterproofing application can be done together with reinforcement reinforcement (alkali resistant reinforcement mesh etc.). After the first coat is applied, the reinforcement is embedded into the first coat while it is still wet. After the first coat dries, the second coat is applied.
- The surface should not be exposed to direct sunlight after application.
- In the insulation to be made under the coating, attention should be paid to waterproofing applications of details such as water drains.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix PROOF UV

Cement based, 2-component, UV resistant, elastic, waterproofing material

DESCRIPTION

2-component (liquid+powder), cement based, elastic waterproofing material with increased UV resistance. It is applied to the surface for waterproofing against positive pressure under ceramic tiles before tile coating materials in volumes exposed to water and humidity.

AREAS OF USE

- Terrace roofs to be left open,
- In wet areas such as pool, water tank, balcony, etc,
- For waterproofing applications to be made on cement based surfaces such as concrete, plaster, screed etc. indoors and outdoors.

FEATURES

Material structure
-powder component (A) : High quality cement, high elasticity and water repellency additives, auxiliary additives that provide superior adhesion materials.
-liquid component (B) : Synthetic resin
Type : Powder (component A) + Liquid (component B)
Color : Grey (powder component A) / white (liquid component B)
Density : 1.80 ± 0.1 g/cm³ (A+B)

TECHNICAL PERFORMANCE*

Temperature resistance	: -30 °C - +70 °C
Initial tensile bond strength	: ≥ 0.5 N/mm²
Tensile strength after contact with water	: ≥ 0.5 N/mm²
Tensile strength after heat aging	: ≥ 0.5 N/mm²
Tensile strength after freeze-thaw	: ≥ 0.5 N/mm²
Water impermeability (positive side for 3 mm thickness)	: ≥1.0 bar
Crack bridging	: ≥ 1.5 mm

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 14891
- TS EN 1062-11

CONSUMPTION

- Approximate consumption 1.4-1.6 kg/m² for 1 mm thickness

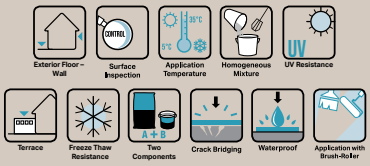
PACKAGING

- Set of 25 kg kraft bags (powder component A) + 8 kg plastic drums (liquid component B).

STORAGE AND SHELF LIFE

- Care should be taken to place maximum 10 kraft bags on top of each other for storage.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Products should be stored at temperatures between +5 °C - +30 °C.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Resistant to UV rays and light foot traffic
- Elastic
- Suitable for horizontal and vertical application
- Crack bridging capability, fiber reinforced
- Ease of implementation
- Freeze-thaw resistance
- Non-corrosive and non-toxic.



VitrA Fix PROOF UV

APPLICATION FEATURES

Mixing ratio	: 25 kg (powder component A) + 8 kg (liquid component B)
Pot life	: Max. 5 hours
Application temperature	: +5 °C - +35 °C
Application thickness	: 2-3 mm
Waiting time between floors	: minimum 6 hours
For ceramic application time to wait	: min 2 days.
Time to gain mechanical strength	: 2 days
Waterproofing time	: 7 days.

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or brightness of the surface should be removed by scraping, etc. before application.
- Before starting the waterproofing process, **VitrA Fix FILM** primer material should be applied to the surface in order to balance the absorbency of the surface and increase the adhesion adherence. Wait minimum 3 hours for the primer to dry.
- Before application on non-absorbent surfaces, the surface should be primed with **VitrA Fix FILM PLUS** or **VitrA Fix LATEX** (see Special Cases section).
- On surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method before application.
- **VitrA Fix PROOF UV** is not a filling material. Accordingly, the application surfaces must be smooth. If there are deviations of 2 mm from the surface smoothness under a 2 m gauge, the necessary repairs should be made using **VitrA Fix RM 20** vertically or **VitrA Fix S 30** horizontally before application.

APPLICATION SURFACES

- It can be applied on cement based surfaces such as concrete, plaster and mortar.

APPLICATION

- Slowly add 25 kg of the powder component to 8 kg of the liquid component.
- Mix at low speed (400 rpm) with a mixer until the mixture is homogeneous and free of lumps.
- Allow the mixture to rest for 3 minutes before application and apply after mixing again.
- The prepared mixture should be applied to the surface with a stiff brush in minimum 2 coats. When applying the first coat from right to left or from top to bottom, our chamfer band products should be used at wall-floor joints.
- 6 hours after the first coat application, the 2nd coat should be applied in the opposite direction of the first coat application. The main purpose here is to cover the surface with all the material.
- The next stage after waterproofing should be started at least 2 days later.
- The times given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- The mixing ratios of components A and B are indicated on the packaging; they should not be mixed in any other ratio.
- If hardening or petrification is detected after opening the packages, the product should not be used.
- Water should never be added to the mixture.
- Do not apply directly on metal, rubber, PVC, mineflo, wood, cement based particle board, gas concrete, underfloor heating, painted and tiled surfaces. Consult technical service for solution.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the minimum 6-week curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given along the surface in the direction of the water drain in order to prevent water accumulation on the surface.
- The working time of **VitrA Fix PROOF UV** is shortened under unsuitable environmental conditions (high temperature, dry air and strong wind). In low temperature and high humidity ambient conditions, the duration can be prolonged.
- **VitrA Fix PROOF UV** is a waterproofing material developed for undercoating applications. It should not be left open, it must be covered with a suitable coating material.
- Protect the treated surfaces from direct sunlight, frost and rain for at least 24 hours.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas with inter-seasonal temperature changes, depending on the heat-bearing systems and insulation applications, in applications to be made in large areas, depending on the load and pedestrian traffic on the ground, necessary expansion joints should be left on the ground, suitable expansion profiles or joint filling mastics (PU, MS Polymer, silicone etc. based) should be used for these joints.
- The surface must be fully bundled during application. If the bundling is not done completely and there are interruptions and joints in the insulation application, these details may cause water leakage.
- In order to increase the resistance on surfaces that will be exposed to water pressure, waterproofing application can be done together with reinforcement reinforcement (alkali resistant reinforcement mesh etc.). After the first coat is applied, the reinforcement is embedded into the first coat while it is still wet. After the first coat dries, the second coat is applied.
- The surface should not be exposed to direct sunlight after application.
- In the insulation to be made under the coating, attention should be paid to waterproofing applications of details such as water drains.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix PROOF CRYSTAL

Cement based, 1-component, crystallized waterproofing material

DESCRIPTION

1 component, cement based, crystallized waterproofing material that is resistant to negative and positive water pressure and provides water impermeability by penetrating into concrete on cement based surfaces.

AREAS OF USE

- Basements and elevator shafts,
- Foundation and curtain walls,
- External insulation of water tanks,
- Sewage and waste water treatment plants,
- Capillary-effect waterproofing material that can be applied indoors and outdoors, from negative and positive directions, on concrete and exposed concrete surfaces.

FEATURES

Material structure : High quality cement containing, crystallized, capillary effective one component waterproofing material.
Type : Powder
Color : Grey

TECHNICAL PERFORMANCE*

Temperature Resistance	: -30 °C +70 °C
Water Impermeability	: 7 bar (negative and positive)
Adhesion Strength	: ≥ 0.8 N/mm² (EN 1542)
Water Vapor Permeability	: Class II; 5 m < SD < 50 mb (EN ISO 7783)
Capillary Water Absorption Value	: < 0.1 kg/m².ho.⁵ (EN 1062-3)

(*) These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- Tested according to TS EN 1504-2 standards.
- CE

CONSUMPTION

- The average is 2 kg/m² (for two coats).

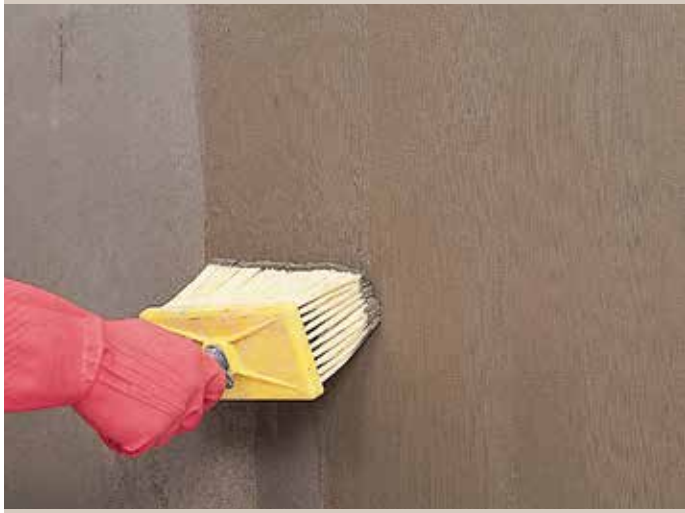
PACKAGING

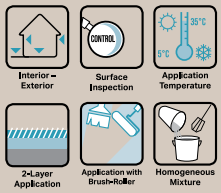
- In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- Care should be taken to place maximum 10 kraft bags on top of each other for storage.
- Product storage conditions should be followed and products should not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

- Resistant to negative and positive water pressure
- Quick solution with ease of implementation
- Provides waterproofing by filling capillary gaps in concrete





VitrA Fix PROOF CRYSTAL

APPLICATION FEATURES

Application temperature	: +5 °C - +35 °C
Number of coats to be applied	: 2-3
Operation time	: 40 minutes
Waiting time between floors	: 6 hours
Waiting for the application of the topcoat	: Min. 7 days
Time required to fill water tanks;	
Min 7 days at positive pressure	
Min. at negative pressure 14 days	

SURFACE PREPARATION

- Application surfaces must be clean, moist, sound and free from dust, grease, dirt or materials preventing adhesion must be removed from the surface.
- Mortar, cement residues, dust, lime, paint residues, mold oils, etc. should be scraped off the application surface with a brush.
- Immediately before application, surfaces such as concrete and cement based plaster should be carefully moistened with clean water. Wait until the surface absorbs the water and make sure that the surface is damp rather than wet during application.
- The strength and bearing capacity of the surfaces on which crystallized waterproofing material will be applied should be checked before application, and application should not be made on unsound surfaces. Significant defects and holes on the surface, crystallized waterproofing with repair mortars at least 24 hours before material application must be repaired.

APPLICATION

- Slowly add 25 kg VitrA Fix Proof Crystal to 7.5-8 liters (30-32%) of clean water and use a low speed mixer (400 rpm) until the mixture is homogeneous and free of lumps.
- The mixture should be rested for 3 minutes before application and applied after mixing again.
- The prepared mixture should be applied to the surface with a roller in minimum 2 coats. The first coat should be applied from right to left or top to bottom.
- 6 hours after the first coat application, the 2nd coat should be applied in the opposite direction of the first coat application. The main purpose here is to cover the surface with all the material.

PRECAUTIONS

- No other substance other than the specified amount of water should be added to the product.
- Products with petrification detected after opening should not be used.
- The product should be applied directly on concrete or exposed concrete surfaces.
- The applied surface should be moisturized for 5 days and protected from direct sunlight, wind, frost, etc.
- The surface should be protected from mechanical loads for at least 48 hours after application.
- The applied surface should not be exposed to UV or pedestrian traffic.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix HYDROSTOP

Elastomeric resin based, ready to use, elastic waterproofing material

DESCRIPTION

Acrylic resin based, ready-to-use waterproofing material that provides water impermeability. Single component. It is applied to the surface before coating materials such as tiles for waterproofing in volumes exposed to water and moisture. Balances the absorbency of the applied surface. Fast and easy to apply.

AREAS OF USE

- Waterproofing of wet areas such as bathrooms, wc, balconies etc,
- Concrete, plaster, screed, gypsum and plasterboard etc. surfaces,
- Waterproofing material under ceramic tiles that can be glued directly without the need for sandblasting.

FEATURES

Material structure : Synthetic resin, filler in special granulometry
Type : Liquid-Acrylic
Color : White
Density : 1.80 ± 0.1 gr/cm³

TECHNICAL PERFORMANCE*

Adhesion Strength (EN 1542)	: ≥ 0.8 N/mm²
-Initialization	: ≥ 0.5 N/mm²
-After contact with water	: ≥ 0.5 N/mm²
-After heat aging (EN 14891)	: ≥ 0.5 N/mm²
Crack Bridging (21°C / -10°C; 50% relative humidity EN 1062-7)	: ≥ 2.5 mm (A5)
Capillary Water Absorption Value (EN 1062-3)	: < 0.1 kg/m²h$^{1/2}$
Temperature Resistance	: (-30°C) - (+80°C)

(*) These values are obtained as a result of laboratory tests and the performance of the finished applications after 28 days values. Values due to differences in the construction site environment may change.

CONSUMPTION

- Average : 1.6-2 kg/m² (1 mm thickness)

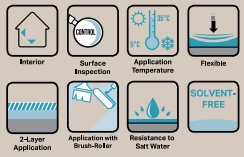
PACKAGING

- 10 and 20 kg plastic buckets

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature should be between +5 °C - +30 °C.
- Pallets should never be stacked on top of each other for storage.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be closed tightly and airtight.

- Easy and fast application for waterproofing wet areas under ceramic tiles,
- Possibility to stick ceramic tiles directly on it due to its filled structure,
- Ready to use,
- 250% elastic after drying.



VitrA Fix HYDROSTOP

APPLICATION FEATURES

Pot life	: Max 5 hours
Application temperature	: 5-35 °C
Application thickness	: 1-1.5 mm
Number of coats to be applied	: 2
Waiting time between floors	: minimum 6 hours
Waiting time before ceramic application	: min 2 days
Waterproofing time	: 7 days

APPLICATION SURFACES

It can be applied on cement based surfaces such as concrete, plaster, mortar and old tile coating.

SURFACE PREPARATION

- Application surfaces must be clean and free from dirt, dust and weak particles.
- Surface defects, cracks and holes should be repaired with repair mortars.
- In cases where chamfer bands cannot be used, wall-floor joints should be chamfered with repair mortars before application.
- VitrA Fix HYDROSTOP should be diluted 40% and used as a primer to increase adhesion to the surface before product application

APPLICATION

- The product should be mixed with a low speed mixer before application.
- The product should be applied to the surface with a brush or roller in minimum 2 coats. When applying the first coat from right to left or top to bottom, chamfer tape should be used at wall-floor joints.
- After the first coat is completely dry, approximately 6 hours later (depending on the ambient temperature), the 2nd coat should be applied in the opposite direction of the first coat application. The main purpose here is to cover the surface with the entire material.
- The periods given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- If hardening or petrification is detected in the product after the packages are opened, the product should not be used.
- VitrA Fix HYDROSTOP gains water impermeability 7 days after it is applied to the surface.
- It should not be applied directly on metal, rubber, PVC, mineflo, gas concrete surfaces and underfloor heating floors. Consult technical service for solution.
- Do not apply on surfaces with high humidity.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the minimum curing time is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given along the surface in the direction of the water drain in order to prevent water accumulation on the surface.
- VitrA Fix HYDROSTOP is a waterproofing material developed for under coating applications. It should not be left open, it must be covered with a suitable coating material.
- Application surfaces should be protected from direct sunlight, frost and water for at least 24 hours.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes are experienced, depending on the heat-bearing systems and insulation applications, in applications to be made in large areas, depending on the load and pedestrian traffic on the ground, necessary expansion joints should be left on the ground, suitable expansion profiles or joint filling mastics (PU, MS Polymer, silicone etc. based) should be used for these joints.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- Products should be kept out of the reach of children.
- Read the Product Safety Sheet (MSDS) for more detailed information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix HYDROSTOP UV

Elastomeric resin based, ready to use, UV resistant, very elastic waterproofing material

DESCRIPTION

It is a one-component, water impermeable, acrylic resin based, UV resistant, ready to use waterproofing material. It is applied to the surface before coating materials such as tiles for waterproofing in volumes exposed to water and humidity. Balances the absorbency of the applied surface. Fast and easy to apply.

AREAS OF USE

- Terrace, roof and exterior waterproofing of buildings
- In creeks, gutters, chimneys and parapet edges
- Practical waterproofing applications on surfaces such as concrete, plaster, screed, gypsum and plaster, galvanized, zinc and aluminum.

FEATURES

Material structure	: Additives for waterproofing, elasticity and UV resistance containing synthetic resin.
Type	: Liquid
Color	: White
Density	: 1.8 gr/cm³

TECHNICAL PERFORMANCE*

Adhesion Strength (EN 1542)	: ≥ 0.8 N/mm²
-initialization	: ≥ 0.5 N/mm²
-After contact with water	: ≥ 0.5 N/mm²
-After heat aging (EN 14891)	: ≥ 0.5 N/mm²
Crack Bridging	: ≥ 2.5 mm (A5)
UV Resistance Test Value: Suitable (2000 hours)	
Capillary Water Absorption Value (EN 1062-3)	: < 0.1 kg/m²h$^{1/2}$
Temperature Resistance	: (-30°C) - (+80°C)
Elongation at break	: > 400

(*) These values are obtained as a result of laboratory tests and are the performance values of the finished applications 28 days later. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 1602-11/UV
- CE

CONSUMPTION

- Average 1.6-2 kg/m² (1 mm thickness)

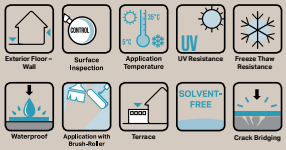
PACKAGING

- In 20 kg plastic bucket packages

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature should be between +5 °C - +30 °C.
- Pallets should never be stacked on top of each other for storage.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be closed tightly and airtight.

- Resistant to UV rays and outdoor weather conditions
- Ready to use
- Can be painted over
- High crack bridging capability
- Strong adhesion
- Suitable for horizontal and vertical application



VitrA Fix HYDROSTOP UV

APPLICATION FEATURES

Pot life	: Max 5 hours
Outdoor air temperature	: (+5) (+35) °C
Application thickness	: 1-1.5 mm
Number of coats to be applied	: 2-3
Waiting time between floors	: minimum 6 hours
Time to gain mechanical strength	: minimum 2 days
Waterproofing time	: 7 days

APPLICATION SURFACES

It can be applied on cement based surfaces such as concrete, plaster, mortar and old tile coating.

SURFACE PREPARATION

- Application surfaces must be clean and free from dirt, dust and weak particles.
- Surface defects, cracks and holes should be repaired with repair mortars.
- In cases where chamfer bands cannot be used, wall-floor joints should be chamfered with repair mortars before application.
- **VitrA Fix HYDROSTOP UV** should be diluted 40% and used as a primer to increase adhesion to the surface before product application.

APPLICATION

- VitrA Fix HYRDROSTOP UV is a ready-to-use waterproofing material. Water or any other substance should not be added to the product during waterproofing coat application.
- The product should be applied to the surface with a brush or roller in minimum 2 coats. When applying the first coat from right to left or top to bottom, our products should be used at wall-floor joints.
- 6 hours after the first coat application, the 2nd coat should be applied in the opposite direction of the first coat application. The main purpose here is to cover the surface with all the material.
- The times given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- If hardening or petrification is detected after opening the packages, the product should not be used.
- **VitrA Fix HYDROSTOP UV** gains water impermeability 7 days after it is applied to the surface.
- Direct application should not be made on metal, rubber, PVC, mineflo, gas concrete surfaces and underfloor heating floors. Consult technical service for solution.
- Do not apply on surfaces with high humidity.
- Do not apply on unset plastered and concrete surfaces (horizontal and vertical) before the curing period is completed.
- In floor applications such as terraces, wet areas, etc., a minimum slope of 3% should be given along the surface in the direction of the water drain in order to prevent water accumulation on the surface.
- **VitrA Fix HYDROSTOP UV** is a waterproofing material developed for under coating applications. It should not be left open, it must be covered with a suitable coating material.
- Application surfaces should be protected from direct sunlight, frost and water for at least 24 hours.
- Considering the thermal stress and mechanical loads that may occur on the floors; in areas where inter-seasonal temperature changes occur, depending on the heat-bearing systems and insulation applications, in applications to be made in large areas, depending on the load and pedestrian traffic on the ground, necessary expansion joints should be left on the ground, suitable expansion profiles or joint filling mastics (PU, MS Polymer, silicone etc. based) should be used for these joints.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- Products should be kept out of the reach of children.
- Read the Product Safety Sheet (MSDS) for more detailed information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix TPE

Thermoplastic elastomer based (TPE) waterproofing tape for wall-floor joints

DESCRIPTION

- Bathroom, wc etc. in wet areas
- Balconies, terraces, parapets
- In areas with permanent wet volumes such as pools, water tanks, etc.

FEATURES

Carrier : Modified polyester mesh
Coating : Aging resistant thermoplastic elastomer (TPE)
Color : Dark Grey

TECHNICAL PERFORMANCE*

PHYSICAL PROPERTIES (APPROX)	TEST METHOD	VALUE
Breaking load (Longitudinal)	DIN EN ISO 527-3	63 N /15 mm
Breaking load (Transverse)	DIN EN ISO 527-3	36 N /15 mm
Elongation at break (Longitudinal)	DIN EN ISO 527-3	%26
Elongation at break (Transverse)	DIN EN ISO 527-3	%123
Power absorption capacity(25% horizontal flexibility)	DIN EN ISO 527-3	0,7 N/mm
Power absorption capacity(50% horizontal flexibility)	DIN EN ISO 527-3	0,9 N/mm
Pressurized water resistance	DIN EN 1928 (Method B)	≥1,5 bar
UV-resistance	DIN EN ISO 4892-2	≥500 saat

REFERENCE STANDARD

- Tested according to DIN EN ISO 527-3.

PACKAGING

- 10 meters and 50 meters in a cardboard box.

STORAGE AND SHELF LIFE

- 12 months from the date of production in a dry and humid environment, provided that the packaging is not opened or damaged.
- If the packaging film has been opened, apply the material within 2 months.

SURFACE PREPARATION

- Ensure that the internal and external surfaces are sound, dry, dust-free, clean, level and smooth.
- The surface must be free from all kinds of oil, grease, rust and paraffin residues that may adversely affect adherence and there must be no loose particles on the surface.
- Surface defects should be corrected with repair mortar.

APPLICATION

- Apply the first coat of **VitrA Fix PROOF** products on the application surface. Before the first coat of **VitrA Fix PROOF** products dries, **VitrA Fix PAH** **BAND** is placed on the joint and pressed with a brush. The mesh and felt carrier parts are embedded into the first coat of **VitrA Fix PROOF** products.
- After the first coat of **VitrA Fix PROOF** products is cured, the application of other coats can be started.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

SAFETY INSTRUCTIONS

- Users should refer to the product's material safety data sheet (MSDS), which contains safety-related information, for information and advice on the safe transportation, storage and disposal of chemical products.

- High adhesion
- High elasticity
- Chemical resistance
- Resistant to water pressure
- Weather and water resistant
- Suitable for contact with drinking water

WATERPROOFING MATERIALS

VitrA Fix FILM

Synthetic resin based, ready-to-use primer

DESCRIPTION

Synthetic resin based, binding liquid primer material that balances absorbency on the surface.

AREAS OF USE

- Increasing the adhesion strength of cement-based products to be applied by balancing the water absorbency of surfaces such as plaster, concrete, plaster, screed, etc.
- Especially before ceramic tile coating, leveling screed, waterproofing, paint applications;
- It is used to prevent problems such as poor adhesion, cracking, peeling etc. by absorbing water rapidly.

FEATURES

Material structure : Contains synthetic resin.
Type : Liquid
Color : Pink
Density : 1.05 ± 0.1 g/cm³ (ASTM D1475 DIN 53217 ISO 2811)

TECHNICAL PERFORMANCE*

Moisture resistance : good
Resistance to heat aging : excellent
Flexibility : good
Acid and alkali resistance : medium
*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

CONSUMPTION

Average: 0.100-0.150 lt/m²

PACKAGING

In 5 kg plastic drums (56 pieces per pallet / 280 kg)

STORAGE AND SHELF LIFE

- - It should be stored in moisture-free, dry and protected against external weather conditions.
- - Shelf life is 1 year under appropriate storage conditions.
- - Opened packages should be kept tightly closed.

APPLICATION FEATURES

Application temperature : +5 °C - +35 °C
Drying time : 45- 60 min

SURFACE PREPARATION

- Surfaces must be cured, sound, clean, dust-free, free of mold oils and other foreign materials.
- In extremely hot summer months, the floor should be slightly moistened by sprinkling water before application.
- Any defects, cracks and holes on the application surface should be repaired with suitable repair mortars.

APPLICATION

- VitrA Fix FILM is thoroughly mixed before application and applied to the surface with a brush or roller without thinning.
- After a minimum drying time of 1 hour, other applications can be started. This period may be longer in cold and humid weather.
- Since it is difficult to clean, care should be taken not to splash during application to avoid contamination on the surface.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid under ambient conditions of 23°C and 50% relative humidity.

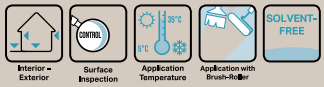
PRECAUTIONS

- No water or other additives should be added.
- **VitrA Fix FILM** reduces the absorbency and porosity of the surface, but since it is not a waterproofing material, it cannot be used for waterproofing purposes.
- **VitrA Fix FILM** primer applied to the surface should not be kept under the sun for a long time.
- It should not be applied on water repellent surfaces.
- It cannot be used on wet and damp surfaces.
- The surface should not be exposed to water after application.
- Not for use on ceramic on ceramic applications.
- Not used on metal surfaces.

SAFETY INSTRUCTIONS

- Do not inhale, avoid contact with skin and eyes.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during product application.
- For more detailed information, please read the Product Safety Sheet (MSDS).

- Increasing adhesion to surfaces
- Prevents dusting on surfaces
- Ready to use
- Balancing the water absorbency of surfaces
- Solvent-free and odorless



VitrA Fix ASTAR

Synthetic resin based, ready-to-use primer

AREAS OF USE

- Increasing the adhesion strength of cement-based products to be applied by balancing the water absorbency of surfaces such as plaster, concrete, plaster, screed, etc.
- Especially before ceramic tile coating, leveling screed, waterproofing and paint applications;
- It is used to prevent problems such as poor adhesion, cracking, peeling etc. by absorbing water rapidly.

FEATURES

Material structure : Liquid containing synthetic resin
Type : Liquid
Color : White
Density : 1.00 ± 0.1 g/cm³ (ASTM D1475 DIN 53217 ISO 2811)

TECHNICAL PERFORMANCE*

Moisture resistance : good
Resistance to heat aging : excellent
Flexibility : good
Acid and alkali resistance : medium
(*) These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

CONSUMPTION

- Average 0.100-0.150 lt/m²

PACKAGING

- In 5 kg plastic drums

STORAGE AND SHELF LIFE

- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 1 year under appropriate storage conditions.
- Opened packages should be kept tightly closed.

APPLICATION FEATURES

Application temperature : +5 °C - +35 °C
Drying time : 45- 60 min

SURFACE PREPARATION

- Surfaces must be cured, sound, clean, dust-free, free of mold oils and other foreign materials.
- In extremely hot summer months, the floor should be slightly moistened by sprinkling water before application.
- Any defects, cracks and holes on the application surface should be repaired with suitable repair mortars.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid under ambient conditions of 23°C and 50% relative humidity.

APPLICATION

- VitrA Fix Primer is thoroughly mixed before application and applied to the surface with a brush or roller without thinning.
- After 1 hour drying time, other applications such as waterproofing, ceramic etc. can be started. This period may be longer in cold and humid weather.
- Since it is difficult to clean, care should be taken to apply without splashing during application in order not to contaminate the surface.

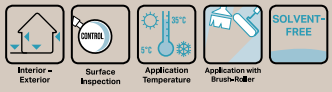
PRECAUTIONS

- No water or other additives should be added.
- **VitrA Fix Primer** applied to the surface should not be kept under the sun for a long time.
- It should not be used on water repellent surfaces, ceramic on ceramic applications.
- The surface should not be exposed to water after application.
- Do not apply in areas that are frozen or at risk of freezing.

GÜVENLİK ÖNLEMLERİ

- Do not inhale, avoid contact with skin and eyes.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during product application.
- For more detailed information, please read the Product Safety Sheet (MSDS).

- Increasing adhesion to surfaces
- Prevents dusting on surfaces
- Ready to use
- Balancing the water absorbency of surfaces
- Solvent-free and odorless



PERFORMANCE ENHANCING PRIMERS AND ADDITIVES

VitrA Fix FILM PLUS

Synthetic resin based, ready to use, filled primer for glossy surfaces

DESCRIPTION

Synthetic resin based, mineral filled, high performance, binding liquid primer material. Thanks to its special filled structure, it increases the binding of the mortar to be applied on smooth and non-absorbent surfaces. Water based, solvent free.

AREAS OF USE

- To increase adhesion strength on smooth and non-absorbent surfaces thanks to its special filled structure,
- Before application on absorbent surfaces such as plaster concrete, plaster, screed etc,
- Especially used before ceramic application on old ceramics, marble, glass etc.

FEATURES

Material structure : Contains synthetic resin and mineral filler
Type : Liquid
Color : Blue
Specific gravity : 1.6 ± 0.1 gr/cm³
(ASTM D1475 DIN 53217 ISO 2811)

TECHNICAL PERFORMANCE*

Moisture resistance	: good
Resistance to heat aging	: excellent
Flexibility	: good
Acid and alkali resistance	: medium

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

CONSUMPTION

- Average 0.300-0.400 kg /m²

PACKAGING

- 3 kg plastic hard (Palette 100 adet / 300 kg)
- 1 kg plastic hard (Palette 180 adet / 180 kg)

STORAGE AND SHELF LIFE

- - It should be stored in moisture-free, dry and protected against external weather conditions.
- - Shelf life is 1 year under appropriate storage conditions.
- - Opened packages should be kept tightly closed.

APPLICATION FEATURES

Application temperature : +5 °C - +35 °C
Drying time : min. 60 min
Waiting time after application: 1 hour

SURFACE PREPARATION

- Surfaces must be cured, sound, clean, dust-free, free of mold oils and other foreign materials.
- In extremely hot summer months, the floor should be slightly moistened by sprinkling water before application.
- Any defects, cracks and holes on the application surface should be repaired with suitable repair mortars.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid under ambient conditions of 23°C and 50% relative humidity.

APPLICATION

- **VitrA Fix FILM PLUS** is thoroughly mixed before application and applied to the surface with a brush or roller without thinning.
- After a minimum drying time of 1 hour, other applications can be started. This period may be longer in cold and humid weather.
- Since it is difficult to clean, care should be taken not to splash during application to avoid contamination on the surface.

PRECAUTIONS

- No water or other additives should be added.
- It is not used as waterproofing material.
- **VitrA Fix FILM PLUS** primer applied to the surface should not be kept under the sun for a long time.
- Not to be used on wet and damp surfaces.
- The surface should not be exposed to water after application.
- Not for use on metal surfaces.

SAFETY INSTRUCTIONS

- Protective gloves, clothing and goggles should be worn during application.
- Avoid direct contact of the mixture or its components with the skin and wash with plenty of water in case of contact.
- In case of eye contact, rinse immediately with water and seek medical advice.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

- Ideal for ceramic applications over old ceramic
- Prevents dusting on surfaces
- Solvent-free and odorless
- Ready to use

VitrA Fix FILM PLUS BETON

Synthetic resin based, ready-to-use filled exposed concrete primer

DESCRIPTION

It is an acrylic resin based, filled, surface adherence enhancing primer applied before gypsum and cement based plaster applications on exposed concrete surfaces.

AREAS OF USE

- It is especially used before the application of cement, gypsum based coatings etc. on exposed concrete surfaces.

FEATURES

Material structure : Synthetic resin based and mineral filler
Type : Liquid
Color : Green
Density : 2.0 ±0.05 gr/cm³

TECHNICAL PERFORMANCE*

Mixing water : % 40
Complete drying time : At least 24 hours (23 °C, 50% relative humidity)
Application thickness : Min. 0,20 mm - max. 0,30 mm
Surface temperature : +5 °C - +35 °C
*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

CONSUMPTION

- Depending on the surface, consumption for a single coat is 0.125-0.250 kg/m².
- Consumption values are theoretical and may vary depending on surface and application conditions.

PACKAGING

In 12 kg plastic buckets. (44 pieces /528 kg per pallet)

STORAGE AND SHELF LIFE

- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 1 year under appropriate storage conditions.
- Opened packages should be kept tightly closed.

APPLICATION FEATURES

Application temperature : +5 °C - +30 °C (*)
Mixing water : Max. 40% by weight
Drying time : 100-150 min
Waiting time after application: At least 24 hours
(*) Environments with high humidity are not suitable for application. (Turkish bath, swimming pool etc.)

SURFACE PREPARATION

- Surfaces must be cured, sound, clean, dust-free, free of mold oils and other foreign materials.
- In extremely hot summer months, the floor should be slightly moistened by sprinkling water before application.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid under ambient conditions of 23°C and 50% relative humidity.

- Any defects, cracks and holes on the application surface should be repaired with suitable repair mortars.

APPLICATION

- It should be mechanically mixed in its own packaging with a low speed mixer (maximum 500 rpm) until a homogeneous and lump-free mixture is obtained.
- Can be diluted with maximum 40% water

PRECAUTIONS

- Avoid contamination of the primer during and after application.
- The ambient temperature must be suitable (+5 °C - +30 °C).
- Stir occasionally during application to ensure homogeneity of the mixture.
- Do not apply on wet, frozen and damp surfaces.

SAFETY INSTRUCTIONS

- Do not inhale, avoid contact with skin and eyes.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during product application.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

- Increasing adhesion strength by creating a rough surface,
- Ready to use,
- Dilutability up to 40% with water,
- Solvent-free and odorless.

PERFORMANCE ENHANCING PRIMERS AND ADDITIVES

VitrA Fix HYDROSIL

Silicone-based, solvent-free, transparent, ready-to-use, water-repellent impregnating primer

DESCRIPTION

Silane/Siloxane emulsion based, solvent-free, ready to use, water repellent primer. It acts as an impregnating primer on the surface it is applied; since it is transparent, it does not spoil the appearance of the surfaces. Penetrates into capillary cracks and surface porosities, provides water impermeability on the surface by penetrating into the surface. Does not hinder the surface's ability to breathe. Water based and environmentally friendly. It has high alkali resistance. Resistant to outdoor weather conditions such as UV, frost and rain.

AREAS OF USE

- Impregnation of porous building materials such as decorative brick, clinker, cement-based particleboard, paint
- Protection of surfaces against wear and tear caused by water, salt, chlorine and alkalis

FEATURES

Material structure	: Silane/Siloxane emulsion
Type	: Liquid
Color	: Transparent
Density	: 0.97 gr/cm³

TECHNICAL PERFORMANCE*

Temperature resistance : -30 °C - +70 °C
Moisture resistance : excellent
*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

CONSUMPTION

- Approximate consumption (kg/m²) may vary depending on the application surface. 0,200-0,400 lt/m²

PACKAGING

- In 5 kg plastic drum packages (56 pieces per pallet / 280 kg)

STORAGE AND SHELF LIFE

- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 1 year under appropriate storage conditions.
- Opened packages should be kept tightly closed.

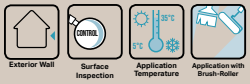
APPLICATION FEATURES

Mixing ratio	: ready-to-use mixture
Application temperature	: +5 °C - +30 °C
Drying time	: minimum 30 minutes

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and solid, and must not be too dry or sweating.
- Before starting the application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.

- Fast and high water repellency
- High water vapor permeability and breathability
- High alkali resistance
- Applicable to painted surfaces
- Resistant to outdoor weather conditions such as UV, frost, rain
- Transparent structure that does not distort the appearance of the surface



VitrA Fix HYDROSIL

APPLICATION SURFACES

It can be applied on water absorbent mineral surfaces, natural stone, cement based plaster, concrete, decorative brick, clinker, cement based particle board, paint, etc.

APPLICATION

- The mixture can be applied to the surface with a stiff brush or roller.
- It is recommended to apply with a stiff brush. It should be applied in successive passes, without waiting for the passes to dry, saturating the surface.
- It is recommended to apply 2 coats to ensure that the material thoroughly covers the entire surface. wet-on-wet application is made without waiting for the coats to dry.

MIXTURE

- VitrA Fix HYDROSIL is a ready-to-use waterproofing material. The product can be used directly after opening the package.
- No other liquid or solid additives such as water, performance enhancing additives, cement should be added to the product.

PRECAUTIONS

- Minimum on unset plastered and concrete surfaces (horizontal and vertical)
- Application should never be made before the curing time expires.
- The surface must be fully insulated. Interruptions and joints in the insulation application may cause water leakage.
- Tools should be cleaned with kerosene and turpentine after application.
- Not suitable for use in areas exposed to water pressure such as surface pools or under permanent water effect.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- Products should be kept out of the reach of children.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix LATEX

Synthetic polymer based performance enhancing liquid additive

DESCRIPTION

Synthetic polymer based liquid additive for cement based mortars to increase binding and strength. It increases the adhesion strength, adhesion performance, mechanical strength, elasticity and water impermeability of cement based tile adhesive, joint filler, plaster, screed, mortar etc. materials. It is non-flammable and has no chemical solvent properties.

AREAS OF USE

- Increasing the performance values of cement based mortars, plasters and screeds such as flexibility, abrasion and impact resistance, adhesion strength, water impermeability, crack resistance etc.

FEATURES

Material structure	: Synthetic polymer doped liquid
Type	: Liquid
Color	: White
Ph	: 8
Density	: 1.05 ± 0.1 gr/cm³ (ASTM D1475 /DIN 53217 ISO 2811)

TECHNICAL PERFORMANCE*

Moisture resistance	: excellent
Resistance to heat aging	: excellent
Flexibility	: excellent
Alkali resistance	: excellent

PACKAGING

In 5 kg plastic drums (56 pieces per pallet / 280 kg)
In 20 kg plastic drums (24 pieces per pallet / 480 kg)

STORAGE AND SHELF LIFE

- Shelf life is 1 year provided that the packaging is kept in a closed and moisture-free environment.
- The product should not be exposed to sun or frost during storage.
- Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

APPLICATION FEATURES

Application temperature : +5 °C - +35 °C
- Adhesive, joint filling mortar and plaster application
Mixing water; 2 scales
Latex ; 1 scale
For example: For 25 kg **VitrA FLEX PORCELAIN**; 2,5 kg Latex is mixed with 5 liters of water.
- In primer material production;
Primer; 1 scale
Latex ; 1 scale

APPLICATION

- The application ambient temperature should be between +5 °C and +35 °C.
- When used as an additive, it improves the performance of cement-based tile adhesives and joint fillers (especially in cold regions and outdoor applications such as terraces, residential entrances, etc.).
- The mixing water of the adhesive or grouting mortar is reduced to a certain extent and **VitrA Fix LATEX** is added to the mixture water as much as the reduced amount. **VitrA Fix LATEX** additive ratio should be at least 1/3 of the mixing water (if the amount of mixing water for the mortar is specified as 3 parts, the mixing water should be prepared as 2 parts water and 1 part **VitrA Fix LATEX**).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid under ambient conditions of 23°C and 50% relative humidity.

PRECAUTIONS

- Not applicable on metal, rubber, PVC, linoleum surfaces.
- Not used as additive material in self-leveling screeds.
- Do not use expired and crusted product in the container.
- When used in cement based adhesive in hot and dry environments, early film formation may be observed on the combed surface. In this case, the adhesive on the film-forming surface should be cleaned and combed again.
- When used in applications such as pools, wet areas, etc., the minimum curing time of the mortar it is added into should be waited.
- When added into ceramic tile adhesive mortar, it delays the set time of the adhesive, especially at low temperatures. Consult technical service for low temperature applications.
- When used together with plaster mortar, care should be taken during application as it will increase the adhesion of the mortar.

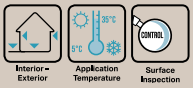
SAFETY INSTRUCTIONS

- Avoid direct contact of the mixture or its components with skin and wash with plenty of water in case of contact.
- In case of contact with eyes, rinse immediately with water and seek medical advice.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

EFFECT OF VİTRA FİX LATEX ON MORTAR

- Increases the adhesion strength of all cement based mortars.
- Increases resistance against abrasion and impacts.
- When used with cement based tile adhesive mortars, it increases the adhesion strength, flexibility and resistance to temperature changes.
- When used with cement based joint filling mortars, it increases the water impermeability, abrasion resistance and bending strength of the joint.
- Increases the resistance of mortar against water, humidity and unbalanced temperature changes. While reducing the absorbency of mortar, it adds relative insulation feature to mortar. Prevents cracking of mortar in case of frost and thawing.

- Increases adhesion strength,
- Provides high abrasion and impact resistance,
- It adds elasticity,
- Reduces water permeability.



VitrA Fix NET

Acidic, liquid concentrated ceramic cleaner

DESCRIPTION

Acidic liquid concentrated cleaning material that removes cement mortar and stains

AREAS OF USE

Ideal for cleaning all post-construction cement and lime-based construction residues and mortar residues on acid-resistant ceramic and granite ceramic surfaces. Safe to use on floor and wall ceramics. Can be used to remove wax residues on ceramic coatings with waxed surfaces.

FEATURES

Type	: Liquid
Color	: Transparent
Ph	: <0.3
Density	: 1.03 gr/cm³
Freezing point	: 0 °C

CONSUMPTION

16-20 m² area can be cleaned with 1 liter

PACKAGING

In 1 kg plastic drums (10 pieces in a cardboard box)

STORAGE AND SHELF LIFE

- Shelf life is 1 year provided that the packaging is kept in a closed and moisture-free environment.
- The product must not be exposed to sun or frost during storage. It should be stored at a temperature of 0 °C +40 °C.
- Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

APPLICATION FEATURES

Application temperature: 0 °C - +40 °C

SURFACE PREPARATION

- Before cleaning with **VitrA Fix NET**, materials that may be affected by acid should be removed or protected (e.g. marble, natural stone, aluminum, inox steel or metal surfaces such as iron).
- The surface must be solid.
- The surface to be cleaned must be fully moistened with water before application.
- Avoid application in very humid or very hot weather.

APPLICATION

- **VitrA Fix NET** is a concentrated material. It is used by diluting with water according to the severity of mortar residue. In general, it is recommended to be diluted 1:5 with water. However, for dense residues, the dilution ratio can be reduced to 1:1, provided that its effect is tested in the material, or it can be used directly without dilution.
- **VitrA Fix NET**T is applied to the surface with a brush or sponge. Wait maximum 5 minutes for the material to take effect. Then, all visible dirt layers are removed with a sponge or brush.
- After the end of cleaning, the liquid residue is removed from the surface with a sponge or industrial vacuum cleaner. The surface is then rinsed several times with water and finally dried with a clean cloth.
- **VitrA Fix NET** is also suitable for use with industrial cleaning machines. VitrA Fix NET should be applied to 3-4 m² of the area to be cleaned at one time, wait 2-3 minutes and then proceed with the cleaning process.
- The application environment must be ventilated and the vapor of**VitrA Fix NET** must be prevented from accumulating in the environment.

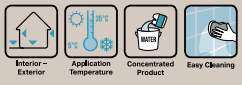
PRECAUTIONS

- Not for use on natural stones (travertine, marble, natural granite) sensitive to acids, tiles and handmade products.
- Not used on glazed ceramic tiles if the glazed surface is not resistant.
- Not used on surfaces that will be affected by acid. Direct contact causes discoloration and darkening (oxidation) on metal surfaces (materials such as aluminum, inox steel or iron) or dark colored surfaces.
- A preliminary test should be made before cleaning with **VitrA Fix NET**. Check whether the material to be cleaned is acid-resistant or not, its cleanability and wear condition. In case of doubt, please consult the technical service via the toll-free hotline.
- The vapor of **VitrA Fix NET** has a corrosive effect. For this reason, it may cause corrosion and rusting on chrome-plated surfaces and surfaces with metal parts. During application, metal and metal-plated materials in the environment should be protected from the effect of acid vapor.
- Due to the corrosive effect of the product, long-term contact with joint filling surfaces should be avoided.

SAFETY INSTRUCTIONS

- Since it is acidic, it should not be inhaled and contact with skin and eyes should be avoided.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during product application.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

- Ideal for cleaning cement and lime based mortar residues from the surface after tile applications,
- Easy implementation.



Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid under ambient conditions of 23°C and 50% relative humidity.

VitrA Fix JOINT CLEANER

Liquid joint filler cleaner

- Easy implementation
- Fast and effective cleaning
- Special formula that does not corrode joint fillers

DESCRIPTION

Specially formulated for fast and effective cleaning and removal of stains and dirt on joint fillers, tile ceramic applications, and joint filler residues left on the tile. For general use, it is ideal for removing dirt, lime and detergent residues that accumulate between tiles over time without causing abrasion in the joints.

AREAS OF USE

- For easy cleaning of cement and lime based mortar residues left on the surface after applications such as adhesives, joint fillers, plaster etc,
- Removal of wax residues on ceramic coatings,
- Ideal for use on acid resistant ceramic tiles, granite tiles, etc.

ÖZELLİKLER

Color	: Transparent
Ph	: 1,5
Density	: 0.9 gr/cm³
Freezing point	: -6 °C

PACKAGING

In 0.5 lt plastic spray packages (10 pieces per box)

CONSUMPTION

50 linear meters of joint line can be cleaned with 0.5 lt.

STORAGE AND SHELF LIFE

- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 1 year under appropriate storage conditions.
- Opened packages should be kept tightly closed.
- The product should not be exposed to sun or frost during storage.
- It should be stored at temperatures between +0 °C - +40 °C.

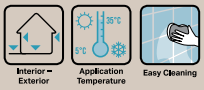
APPLICATION

- It is recommended to apply consecutively in small areas of 3 or 4 tiles.
- Apply directly to the joints.
- Wait maximum 3 minutes for it to penetrate the surface.
- Remove the dirt with a sponge with plenty of water.
- If the dirt is not removed, the dirt is removed by rubbing the dirty surface with a brush, sponge or similar material.
- After removing the dirt, the surface should be rinsed thoroughly.

SAFETY INSTRUCTIONS

- Since it is acidic, it should not be inhaled and contact with skin and eyes should be avoided.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during product application.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid under ambient conditions of 23°C and 50% relative humidity.



SURFACE CLEANING AND MAINTENANCE MATERIALS

VitrA Fix RM FLAT

Cement-based, thin-filled, satin-looking, plaster and surface correction putty

- Thin-filled satin-like plaster
- High adhesion performance
- Ideal for surface preparation before painting
- Non-shrinking and non-cracking
- Resistant to outdoor conditions

TANIMI

It is a cement-based under-paint satin-looking plaster containing special binders. It is used as thin plaster between 0-3 mm. It has high adhesion performance. Resistant to outdoor conditions.

AREAS OF USE

- Interior and exterior facades of buildings,
- To create a smooth surface before application of paint, decorative plaster, etc,
- Suitable for filling capillary cracks.

FEATURES

Material structure	: High quality cement, special additives and fillers.
Type	: Powder
Color	: White, Grey
Dry Density	: 1.00± 0.1 gr/cm³
Mortar Density	: 1.70± 0.1 gr/cm³
Grain Size	: ≤ 400 µm

TECHNICAL PERFORMANCE*

Compressive strength	: >10 N/mm² (after 28 days) (TS EN 12190)
Adhesion strength	: >0.8 N/mm² (after 28 days)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- Tested according to TS EN 1504-3 standard.
- CE

CONSUMPTION

- Approximate consumption (kg/m2) may vary depending on the application surface defect. For 1 mm thickness, consumption is 1.0-1.2 kg/m2.

PACKAGING

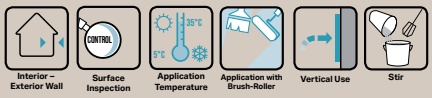
- In 20 kg kraft bags

STORAGE AND SHELF LIFE

- For storage, care should be taken to place a maximum of 10 kraft bags on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.

APPLICATION FEATURES

Mixing ratio	: 7.6-8.4 liters of water per 20 kg bag
Application thickness	: 0-3 mm
Pot Life	: 30 minutes (23 °C)
Application temperature	: +5 °C - +35 °C



VitrA Fix RM FLAT

APPLICATION SURFACES

It provides very good adherence especially with concrete and cement based surfaces. It should never be applied on metal, wood and betopan surfaces. Technical service should be consulted before application on gypsum based surfaces and reinforced concrete panels.

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or gloss of the surface should be removed by scraping, etc. before application.
- Before application on highly absorbent surfaces, the surface must be primed with VitrA Fix FILM.
- Before applying on non-absorbent surfaces, the surface must be primed with **VitrA Fix FILM PLUS.**
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- If the surface is too dry, the surface should be moistened by wetting with water beforehand.

APPLICATION

- Slowly add 20 kg of **VitrA Fix RM FLAT** to 7,6 - 8,4 liters (38-42%) of clean water and mix until the mixture is lump-free and homogeneous.
- It is recommended to use a low speed mixer for a lump-free and homogeneous mixture.
- Allow the mixture to rest for 5 minutes before application and apply after mixing again.
- **VitrA Fix RM FLAT,** which is spread on the surface with a flat steel trowel, is applied to the surface as stripping.
- 20-30 minutes after the application (when the surface starts to dry), the surface can be corrected by troweling with a flat trowel or a damp sponge.
- If it starts to dry during the smoothing process, the surface can be moistened to facilitate application.
- In windy, sunny and dry weather applications, moisturizing the surface every 2-3 hours after application will prevent capillary cracks that may occur due to sudden drying and loss of curing water.

PRECAUTIONS

- Do not apply on frost hazardous or overheated surfaces, under direct sunlight and in high winds.
- If petrification is detected after the bags are opened, the product should not be used.
- The product should be used within the life of the container after mixing.
- Do not add any foreign material such as lime, cement or gypsum into the mortar.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not apply on unsound surfaces.
- The surface must be protected from contact with water for at least 24 hours after application.
- Expansion joints in the structure should never be plastered or filled, suitable profiles or mastics should be used for joint passages.
- Do not apply on newly plastered or concrete surfaces before the curing period is completed.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix RM 20

Cement based, thick filled surface leveling and repair mortar

- Easy to apply
- High adhesion performance
- No shrinkage and cracking
- Resistant to outdoor conditions
- Water, moisture and humidity resistant

DESCRIPTION

It is an easy-to-apply, cement-based, thick-filled surface correction and repair plaster that is resistant to water, humidity and moisture. It is used for correcting surface defects, thick cracks, deep cavities and elevation differences between 5 and 20 mm and for plaster repairs. It has high adhesion performance. Resistant to outdoor conditions.

AREAS OF USE

- Repair of spilled, cracked, broken surfaces,
- Plastering of blocky surfaces such as bricks on the interior and exterior facades of buildings,
- To provide a smooth surface before paint, ceramic tile, waterproofing etc. applications,
- Suitable for use between 3-20 mm.

FEATURES

Material structure	: High quality cement, special additives and fillers.
Type	: Powder
Color	: Grey
Dry Density	: 1.60 ± 0.1 gr/cm³
Mortar Density	: 1.80± 0.1 gr/cm³
Grain Size	: ≤ 800 µm

TECHNICAL PERFORMANCE*

Compressive strength	: > 15 N/mm2 (after 28 days)
Adhesion strength	: >0.8 N/mm² (TS EN 1542) (after 28 days)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- Tested according to TS EN 1504-3 standard.
- CE

CONSUMPTION

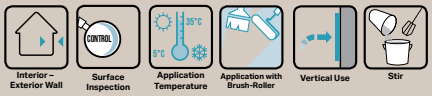
- Approximate consumption amount (kg/m²) may vary depending on the application surface defect. For 1 mm thickness, consumption is 1.8 kg/m².

PACKAGING

- In 25 kg kraft bags

STORAGE AND SHELF LIFE

- For storage, care should be taken to place a maximum of 10 kraft bags on top of each other.
- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- Packages should be tightly closed when not in use.



VitrA Fix RM 20

APPLICATION FEATURES

Mixing ratio : 4.5-5.5 liters of water per 25 kg bag
Application thickness : 3 -20 mm
Pot Life : 30 minutes (23 °C)
Application temperature : +5 °C - +35 °C

APPLICATION SURFACES

It provides very good adherence especially to concrete surfaces. Can be applied on cement based plasters, concrete surfaces, bricks and briquette blocks. Not applicable on metal, wood and gypsum based, fibrous cement and porous concrete surfaces.

YÜZEY HAZIRLIĞI

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or gloss of the surface should be removed by scraping, etc. before application.
- Before application on highly absorbent surfaces, the surface must be primed with **VitrA Fix FILM.**
- Before applying on non-absorbent surfaces, the surface must be primed with **VitrA Fix FILM PLUS**.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- If the surface is too dry, the surface should be moistened by wetting with water beforehand.

APPLICATION

- Slowly add 25 kg of **VitrA Fix RM 20** to 4.5-5.5 liters (18-22%) of clean water and mix until the mixture is lump-free and homogeneous.
- It is recommended to use a low speed mixer for a lump-free and homogeneous mixture.
- Allow the mixture to rest for 5 minutes before application and apply after mixing again.
- **VitrA Fix RM 20**, which is spread on the surface with a flat steel trowel, is applied to the surface with a thickness of 3-20 mm.
- 20-30 minutes after the application (when the surface starts to dry), the surface can be corrected by troweling with a flat trowel or a damp sponge. Also, a patterned surface can be obtained by troweling with a plastic trowel.
- If it starts to dry out during the smoothing process, the surface can be moistened to facilitate application.
- In windy, sunny and dry weather applications, moisturizing the surface every 2-3 hours after application will prevent capillary cracks that may occur due to sudden drying and loss of curing water.

PRECAUTIONS

- Do not apply on frost hazardous or overheated surfaces, under direct sunlight and in high winds.
- If petrification is detected in the product after the bags are opened, the product should not be used.
- The product should be used within the life of the container after mixing.
- Do not add any foreign material such as lime, cement or gypsum into the mortar.
- The amount of water indicated on the bag must be observed.
- Do not apply on unsound surfaces.
- Protect the treated surfaces from direct sunlight, rain and frost for at least 24 hours.
- Expansion joints in the structure should never be plastered or filled, suitable profiles or mastics should be used for joint passages.
- Do not apply on newly plastered or concrete surfaces before the curing period is completed.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix GROUT

Cement based, fluid, high strength fixing and filling mortar

DESCRIPTION

Cement based high strength, high flowability, non-shrinking, climate resistant fixing and filling mortar.

AREAS OF USE

- Installation and fixing of steel, prefabricated concrete structural elements,
- Machine and crane mounting bases,
- Fixing of industrial machines such as generators, compressors, pumps etc,
- Structural fixing and filling mortar suitable for use between 10-70 mm at a time, suitable for indoor and outdoor use.

FEATURES

Material structure	: Powder product containing high quality cement, filler, performance polymer and fiber additives.
Type	: Powder
Color	: Grey
Dry Density	: 1.50 ± 0.10 gr/cm³
Mortar Density	: 2.20 ± 0.10 gr/cm³

TECHNICAL PERFORMANCE*

Compressive Strength	: ≥ 30 MPa in 1 day, ≥ 50 MPa in 28 days
Flexural Strength	: ≥7 N/mm² (after 28 days)

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- Tested according to TS EN 1504-3 standard.
- CE

CONSUMPTION

- Approximate consumption amount (kg/m²) may vary depending on the application surface defect. For 1 mm thickness, it is 2.2-2.4 kg/m² on average.

PACKAGING

- In 25 kg kraft bags

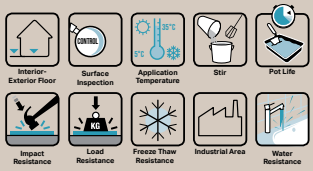
STORAGE AND SHELF LIFE

- Maximum 10 kraft bags can be stacked on top of each other.
- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 6 months under suitable storage conditions.
- Opened packages should be kept tightly closed.

APPLICATION FEATURES

Mixing ratio	: 3.75-4.25 liters of water per 25 kg bag
Application thickness	: 10-70 mm
Pot life (Temperature dependent)	: 30 min.
Application temperature	: +5 °C - +35 °C
Opening time for pedestrian traffic (light pedestrian traffic)	: minimum 24 hours

- High mechanical strength and adhesion
- Self-leveling with its highly fluid structure
- No shrinkage and cracking
- Fast strength gainer
- Water and frost resistant
- Fast and easy implementation
- Fiber reinforced



VitrA Fix GROUT

SURFACE PREPARATION

- The application surface must be clean, free from dirt, dust and weak particles.
- The formwork to be applied must be fixed, sealed and cleaned very well.
- If the application is to be made on old concrete, the surface must be moistened before application. Small puddles of water should be avoided.
- Prepare enough material to be used considering the working time.

APPLICATION SURFACES

- **VitrA Fix GROUT** can be safely applied on cement-based screed, concrete slab and prefabricated concrete on indoor and outdoor floors.
- Consult us for all other application surfaces.

APPLICATION

- A 25 kg bag of **VitrA Fix GROUT** should be slowly poured into a container with an average of 3.75- 4.25 liters (15-17%) of clean water and mixed with a low speed hand mixer for 3-4 minutes until it reaches a homogeneous consistency. Make sure that there are no air bubbles in the mortar.
- Do not add water to the hardening mortar.
- **VitrA Fix GROUT**, which has a fluid structure, should be poured continuously from one side of the previously prepared mold. Thus, air entrapment in the mixture should be prevented. The mortar should be used in a short time and should not be kept for too long (15-20 minutes).
- In order to ensure that all the gaps in the mold are filled, a steel wire with a hooked end should be used for placement and a vibrator should not be used.
- The times given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- Do not apply on frost hazardous or overheated surfaces, under direct sunlight and in high winds.
- If petrification is detected in the product after the bags are opened, the product should not be used.
- The product should be used within the life of the container after mixing.
- Do not add any foreign material such as lime, cement or plaster into the mortar.
- Do not add more or less water to the mixture than the amount of water indicated on the bag.
- Do not apply on unsound surfaces.
- Protect the treated surfaces from direct sunlight, rain and frost for at least 24 hours.
- It is recommended to use a pump for large volume applications.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix S 10

Cement based, self-leveling, floor leveling and preparation screed

DESCRIPTION

Cement based, fast drying, self-leveling surface correction and preparation mortar. It is used for correcting elevation differences on the floor surface. It provides very easy and fast application with its self-leveling feature. Forms a non-porous structure resistant to abrasion and dusting.

AREAS OF USE

- To obtain a smooth surface before the application of PVC, linoleum, parquet, carpet, ceramic etc,
- On floors with underfloor heating,
- Leveling of defects in concrete, screed floors,
- Self leveling surface correction screed that can be applied between 3-10 mm in a single layer.

FEATURES

Material structure	: High-quality cement, filler and performance-enhancing poly powder product containing mer additives.
Type	: Powder
Color	: Grey
Dry density	: 1.5 ± 0.05 gr/cm³
Mortar density	:2.10 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Compressive Strength (TS EN 13813) ≥ 25 MPa (N/mm²) (28 days) - C25
Flexural Strength (TS EN 13813) ≥ 10 Mpa (N/mm²) (28 days) - F10
Temperature resistance : -30 °C - +70 °C
*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- TS EN 13813
- CE

CONSUMPTION

- Approximate consumption (kg/m²) may vary depending on the application surface defect. For 1 mm thickness, consumption is 1.9-2.1 kg/m₂.

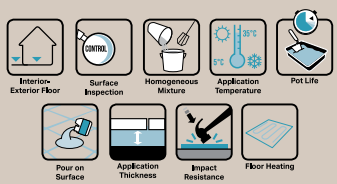
PACKAGING

- In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature should be above +5 °C.
- Maximum 10 kraft bags can be stacked on top of each other.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be closed tightly and airtight.

- High mechanical and abrasion resistance
- Resistant to temperature changes and dusting
- Fast spreading with its fluid structure
- Forms a non-porous and smooth surface
- Fast and easy implementation
- No cracking and collapse



VitrA Fix S 10

APPLICATION FEATURES

Application thickness	: 3-10 mm
Pot Life	: Maximum 30 min
Method of application	: Trowel or pump
Application temperature	: +5 °C - +35 °C
Coating time	: 24-48 hours
Opening time for pedestrian traffic	: Min 24 hours (light pedestrian traffic)

APPLICATION SURFACES

Suitable for use on cement based plaster and screed surfaces, exposed concrete surfaces and concrete slabs.

SURFACE PREPARATION

- Application surfaces must be cured and sound. They must be free from dust, dirt, oil, etc., must be smooth, not too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or gloss of the surface should be removed by scraping, etc. methods before application.
- The surface must be primed with **VitrA Fix FILM** before application.
- The surface must be primed with **VitrA Fix FILM PLUS** before application on non-absorbent surfaces.
- On surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method before application.
- Broken and damaged areas on the surface should be repaired with **VitrA Fix RM 20** repair mortar.

APPLICATION

- Slowly add 25 kg **Vitra Fix S 10** to 5.5-6.5 lt (22-26%) of clean water and mix with a low speed mixer (400 rpm) until the mixture is homogeneous and free of lumps.
- The mixture is rested for 3 minutes before application and applied after mixing again.
- The prepared mixture is spread on the floor with a steel trowel and the thickness is adjusted. A spiked roller should be used to prevent air bubbles in the product.
- During the application, the application thickness should be determined in accordance with the door thresholds and volumetric changes in the space.
- The times given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- Protect the treated surfaces from direct sunlight, rain and frost for at least 24 hours.
- If petrification is detected after opening the bags, the product should not be used.
- The product must be used within the life of the container after mixing.
- Do not add any foreign material such as lime, cement or gypsum into the mortar.
- The amount of water indicated on the bag should be observed. In large area applications, expansion joints should be left every 30-40 m², taking into account possible thermal stress and mechanical loads, and filled with polyurethane mastic or expansion profiles.
- Do not apply directly on surfaces such as metal, rubber, PVC, wood.
- **Vitra Fix S 10** should be poured in a smooth and continuous flow.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix S 30

Cement based, self-leveling floor leveling and preparation screed

- High mechanical and abrasion resistance
- Resistant to temperature changes and dusting
- Fast spreading with its fluid structure
- Forms a non-porous and smooth surface
- Fast and easy implementation
- Crack bridging capability, fiber reinforced

DESCRIPTION

Cement based, fast drying, self-leveling, fiber reinforced surface correction and preparation mortar. It is used for correcting elevation differences on the floor surface. It provides very easy and fast application with its self-leveling feature. Forms a non-porous structure resistant to abrasion and dusting. It has high mechanical strength thanks to its structure reinforced with fiber additives. It does not crush under load thanks to its flexibility feature.

AREAS OF USE

- Prior to the application of PVC, linoleum, parquet, carpet, ceramic etc,
- On floors with underfloor heating,
- Leveling of defects in concrete, screed floors,
- Self leveling surface correction screed that can be applied between 4-30 mm in a single layer

FEATURES

Material Structure	: High quality cement, fiber reinforced powder with polymer additives for filling and performance.
Type	: Powder
Color	: Grey
Dry Density	: 1.5 ± 0.05 gr/cm³
Mortar Density	: 2.00 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Compressive Strength (TS EN 13813) ≥ 30 MPa (N/mm²) (28 days)
Bending Strength (TS EN 13813) ≥ 10 Mpa (N/mm²) (28 days)
Temperature resistance : -30 °C - +70 °C
*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment

REFERENCE STANDARD

- TS EN 13813
- CE

CONSUMPTION

- Approximate consumption (kg/m2) may vary depending on the application surface defect. For 1 mm thickness, consumption is 1.9-2.1 kg/m².

PACKAGING

- In 25 kg kraft bags (48 pieces per pallet / 1200 kg)

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature should be above +5 °C.
- Maximum 10 kraft bags can be stacked on top of each other.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be tightly closed in an airtight manner.

VitrA Fix S 30

APPLICATION FEATURES

Application thickness : 4-30 mm
Pot Life : Maximum 30 min
Application temperature : +5 °C - +35 °C
Coating time : 24-48 hours
Opening time for pedestrian traffic : Min 24 hours (light pedestrian traffic)

APPLICATION SURFACES

Suitable for use on old parquet floors, chipboard boards, painted floors (polyurethane, epoxy, acrylic), hard floor boards, terrazzo floors, cement-based floors, screeds and concrete floors.

SURFACE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc., must be smooth and sound, and must not be too dry or sweating.
- On surfaces that have been polished or hardened afterwards (concrete, etc.), the hardness or gloss of the surface should be removed by scraping, etc. methods before application.
- The surface must be primed with **VitrA Fix FILM** before application.
- The surface must be primed with **VitrA Fix FILM PLUS** before application on non-absorbent surfaces.
- Before application on surfaces exposed to direct sunlight and overheated surfaces, the surface temperature should be reduced by moistening the surface with water sprinkling method.
- Broken and damaged areas on the surface should be repaired with **VitrA Fix RM 20** repair mortar.

APPLICATION

- Slowly add 25 kg of **Vitra Fix S 30** to 5.0-6.0 liters (20-24%) of clean water and mix with a low speed mixer (400 rpm) until the mixture is homogenous and free of lumps.
- The mixture is rested for 3 minutes before application and applied after mixing again.
- The prepared mixture is spread on the ground with a steel trowel and the thickness is adjusted. A spiked roller should be used to avoid air bubbles in the product.
- During the application, the application thickness should be determined in accordance with the door thresholds and volumetric changes in the space.
- The periods given in the application information and steps may be shorter or longer under different ambient conditions (low/high temperature, humidity, wind, etc.).

PRECAUTIONS

- Protect the treated surfaces from direct sunlight, rain and frost for at least 24 hours.
- If petrification is detected after opening the bags, the product should not be used.
- The product should be used within the container life after mixing.
- No foreign materials such as lime, cement, gypsum should be added to the mortar.
- The amount of water indicated on the bag should be observed. In large area applications, considering the possible thermal stress and mechanical loads, expansion joints should be left every 30-40 m2 and filled with polyurethane mastic or expansion profiles.
- Do not apply directly on surfaces such as metal, rubber, PVC, wood.
- **Vitra Fix S 30** should be poured in a smooth and continuous flow.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLOOR QR

Cement based, quartz aggregate floor hardener

DESCRIPTION

It is a one-component, ready-to-use concrete surface hardening material modified with cement, quartz aggregate and additives that increases surface abrasion resistance on industrial floors exposed to moderate load and vehicle traffic.

AREAS OF USE

- Industrial floors exposed to moderate vehicle-load traffic
- Warehouse-warehouse, workshop, car service-washing stations

FEATURES

Material structure	: Powder
Color	: Grey, red, green
Density	: 1.7 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Taber Abrasion Resistance	: < 3000 mg (EN ISO 5470-1)
Impact Resistance	: Class I (EN ISO 6272-1)
Temperature resistance	: -30 °C - +70 °C

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- Tested according to TS EN 1504-2 standard.

CONSUMPTION

- Average 4-6 kg/m² (1 mm thickness)

PACKAGING

In 25 kg kraft bags

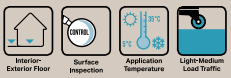
STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature should be above +5 °C.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be tightly closed to prevent air and water.

APPLICATION FEATURES

Application temperature	: +5 °C - +35 °C
Walkability	: 24 hours

- Possibility to obtain a smooth and homogeneous surface
- Increasing resistance to impacts
- Wear prevention against mechanical loads
- Delaying surface dusting
- Suitable for medium vehicle-load traffic



VitrA Fix FLOOR QR

SURFACE PREPARATION

- Depending on the quality of the concrete, the entire surface should be homogeneous
- The thickness of the applied concrete should be at least 15 cm.
- The bearing concrete of the area to be applied must be at least C25 class.
- The surface of the fresh concrete to be applied should not be troweled with a steel trowel or tray trowel, it should be smoothed with a wooden trowel.

APPLICATION

- Wait until the load-bearing concrete is walkable. The appropriate time is when the concrete has hardened enough to leave a footprint 0.5-1.5 cm deep.
- The material is distributed over the entire surface by sprinkling method. The material should not be left in heaps on the surface, and homogeneous distribution should be ensured as much as possible. In addition, in order to prevent the aggregates in the product from decomposing, it should not be sprinkled at long distances. This process can be done manually or with special spreading equipment.
- The sprinkled material should be expected to change color by absorbing the water of the concrete.
- The homogeneously sprinkled and discolored material is compacted with a tray trowel to ensure its integration with the concrete.
- Then switch to knife burnishing and continue this process until the desired gloss is obtained.

PRECAUTIONS

- Absolutely no water should be thrown on the material during application.
- Do not apply on surfaces that are frozen and in danger of frost.
- Do not apply on overheated surfaces, in very sunny and windy weather.
- Care should be taken to use correct timing and finishing techniques.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLOOR BS

Cement based, basalt aggregate floor hardener

DESCRIPTION

One-component, ready-to-use concrete surface hardener modified with cement, corundum and basalt aggregates and additives to increase surface abrasion resistance on industrial floors exposed to heavy loads and heavy vehicle traffic material.

AREAS OF USE

- Industrial floors exposed to heavy vehicle-load traffic
- Warehouse-warehouse, workshop, car service-washing stations

FEATURES

Material structure	: Powder
Color	: Grey, red, green
Density	: 1.7 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Taber Abrasion Resistance	: < 3000 mg (EN ISO 5470-1)
Impact Resistance	: Class I (EN ISO 6272-1)
Temperature resistance	: -30 °C - +70 °C

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- Tested according to TS EN 1504-2 standard

CONSUMPTION

- 4-6 kg/m² for 1 mm thickness

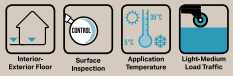
PACKAGING

In 25 kg kraft bags

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature should be above +5 °C.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be tightly closed to prevent air and water.

- Possibility to obtain a smooth and homogeneous surface
- Increasing resistance to impacts
- Wear prevention against mechanical loads
- Delaying surface dusting
- Suitable for heavy vehicle-load traffic



VitrA Fix FLOOR BS

APPLICATION FEATURES

Application temperature	: +5 °C - +35 °C
Walkability	: 24 hours

SURFACE PREPARATION

- Depending on the quality of the concrete, the entire surface should be homogeneous
- The thickness of the applied concrete must be at least 15 cm.
- The bearing concrete of the area to be applied must be at least C25 class.
- The surface of the fresh concrete to be applied should not be troweled with a steel trowel or tray trowel, it should be smoothed with a wooden trowel.

APPLICATION SURFACES

Indoor and outdoor floors; - Workshops, - Warehouses, - Parking lots, - Service stations, - Industrial building floors, - Residential buildings, - Workplaces etc.

APPLICATION

- Wait until the load-bearing concrete is walkable. The appropriate time is when the concrete has hardened enough to leave a footprint 0.5-1.5 cm deep.
- The material is distributed over the entire surface by sprinkling method. The material should not be left in heaps on the surface, and homogeneous distribution should be ensured as much as possible. In addition, in order to prevent the aggregates in the product from decomposing, it should not be sprinkled at long distances. This process can be done manually or with special spreading equipment.
- The sprinkled material should be expected to change color by absorbing the water of the concrete.
- The homogeneously sprinkled and discolored material is compacted with a tray trowel to ensure its integration with the concrete.
- Then switch to knife burnishing and continue this process until the desired gloss is obtained.

PRECAUTIONS

- Absolutely no water should be thrown on the material during application.
- Do not apply on surfaces that are frozen and in danger of frost.
- Do not apply on overheated surfaces, in very sunny and windy weather.
- Care should be taken to use correct timing and finishing techniques.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix FLOOR CR

Cement based, corundum aggregate surface hardener

DESCRIPTION

It is a surface hardening material that increases surface abrasion resistance on industrial floors exposed to heavy loads and heavy vehicle traffic, reinforced with cement, high amounts of corundum aggregate and modified with additives.

AREAS OF USE

- Industrial floors exposed to heavy vehicle-load traffic
- Warehouse, workshop, car service-washing stations

FEATURES

Material structure	: Powder
Color	: Grey, red, green
Density	: 1.7 ± 0.05 gr/cm³

TECHNICAL PERFORMANCE*

Taber Abrasion Resistance	: < 3000 mg (EN ISO 5470-1)
Impact Resistance	: Class I (EN ISO 6272-1)
Temperature resistance	: -30 °C - +70 °C

*These values are obtained as a result of laboratory tests and are the performance values of the finished applications after 28 days. Values may vary due to differences in the construction site environment.

REFERENCE STANDARD

- Tested according to TS EN 1504-2 standard.

CONSUMPTION

5-8 kg/m² for 1 mm thickness

PACKAGING

In 25 kg kraft bags

STORAGE AND SHELF LIFE

- Product storage conditions must be complied with and products must not be stored in damp and waterlogged warehouses. Warehouse ambient temperature should be above +5 °C.
- Shelf life is 1 year provided that the packages are kept in closed and moisture-free environments. Production date and charge number are indicated on the packaging.
- When not in use, the packages should be tightly closed to prevent air and water.

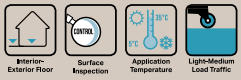
APPLICATION FEATURES

Application temperature	: +5 °C - +35 °C
Walkability	: 24 hours

SURFACE PREPARATION

- Depending on the quality of the concrete, the entire surface should be homogeneous
- The thickness of the applied concrete must be at least 15 cm.
- The bearing concrete of the area to be applied must be at least C25 class.
- The surface of the fresh concrete to be applied should not be troweled with a steel trowel or tray trowel, it should be smoothed with a wooden trowel.

- Possibility to obtain a smooth and homogeneous surface
- Wear prevention against mechanical loads
- Increasing resistance to impacts
- Delaying surface dusting
- Suitable for heavy vehicle-load traffic



VitrA Fix FLOOR CR

APPLICATION SURFACES

Indoor and outdoor floors; - Workshops, - Warehouses, - Parking lots, - Service stations, - Industrial building floors, - Residential buildings, - Workplaces, etc.

APPLICATION

- Wait until the load-bearing concrete is walkable. The appropriate time is when the concrete has hardened enough to leave a footprint 0.5-1.5 cm deep.
- The material is distributed over the entire surface by sprinkling method. The material should not be left in heaps on the surface, and homogeneous distribution should be ensured as much as possible. In addition, in order to prevent the aggregates in the product from decomposing, it should not be sprinkled at long distances. This process can be done manually or with special spreading equipment.
- The sprinkled material should be expected to change color by absorbing the water of the concrete.
- The homogeneously sprinkled and discolored material is compacted with a tray trowel to ensure its integration with the concrete.
- Then switch to knife burnishing and continue this process until the desired gloss is obtained.

PRECAUTIONS

- Absolutely no water should be thrown on the material during application.
- Do not apply on surfaces that are frozen and in danger of frost.
- Do not apply on overheated surfaces, in very sunny and windy weather.
- Care should be taken to use correct timing and finishing techniques.

SAFETY INSTRUCTIONS

- Avoid contact with skin and eyes as it contains cement. Wash contact areas with plenty of water.
- It is recommended to use rubber gloves during product application.
- The product should not be inhaled directly. Dust mask should be used when necessary.
- For more detailed information, please read the Material Safety Data Sheet (MSDS).

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix SM 610

General purpose, hygienic, acetic silicone sealant

- Excellent adhesion to many surfaces
- Mold resistant, hygienic
- Does not form pores during drying
- Does not lose its properties at low and high temperatures
- Non-flowing, easy to apply and long lasting

DESCRIPTION

One-component, acetic, general purpose silicone sealant. It is used for sealing joints of different materials. Does not collapse after application. Does not form pores on the surface while drying. It has mold retarding properties in excessively humid and unventilated areas.

AREAS OF USE

- Washbasin, bathtub, toilet bowl, shower cabin junction details,
- Filling and sealing joints of various building elements such as glass, aluminum, steel, PVC, porcelain, etc,
- Suitable for use in corner joints of ceramic tiles in bathrooms and kitchens.

FEATURES

Material structure	: Silicone
Type	: Sealant
Color	: Transparent / white
Density	: 0.98 gr/cm³

TECHNICAL PERFORMANCE

Elongation at Break : ≥100 % (ASTM D412)
Temperature resistance : -10 °C TO +80 °C
Crusting time : 50 ± 20 minutes (23 °C and 50% R.H)
Curing speed : 2 mm/day (23 °C and 50% R.H)
Shore A hardness : 40 - 70

CONSUMPTION

- 11 mtül / 280 ml cartridge (for 3 mm joint width, 8 mm joint depth)

PACKAGING

- 280 gr, 280 ml (25 pieces per box)

STORAGE AND SHELF LIFE

- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 1 year under appropriate storage conditions.
- Opened packages should be kept tightly closed.

APPLICATION FEATURES

Application tool	: silicone gun
Application temperature	: +5 °C - +35 °C
Touch drying time	: 10 minutes
Crusting time	: 25 minutes

SURFACE PREPARATION

- The application surface must be clean and dry, free from residues, oil and dirt that may prevent the silicone from adhering.
- Non-porous surfaces (glass, sanitary ware, etc.) should be thoroughly cleaned with solvent type cleaning materials.
- Since the cleaning material will contain solvent, it should be dried before it evaporates from the surface and leaves no residue.
- The surface can be primed to strengthen adhesion on various substrates.

VitrA Fix SM 610

APPLICATION

- The edges of the joint should be taped for masking along the application line to prevent contamination of the silicone material to materials outside the joint.
- The end of the cartridge packaging is cut diagonally (at a 45° angle) at the appropriate tip thickness, taking into account the joint width. VitrA Fix SM 610 is applied with a silicone gun. The appropriate amount of silicon is sprayed on the surface along the joint line.
- The silicone surface is smoothed with a silicone spatula or silicone pencil without forming a crust.
- After application, masking tapes are removed from the surface. Dried silicone residues can be cleaned with solvent cleaning materials.

PRECAUTIONS

- Avoid contact with marble, cement-based products and natural stones; staining may occur.
- Avoid contact with metal (lead, copper, brass, zinc, etc.) surfaces due to corrosion risk.
- Do not use with organic elastomers such as EPDM, APTK and Neoprene; may cause discoloration.
- Not for bonding glossy surfaces together.
- Not suitable for filling, insulation or bonding in aquariums.
- Cannot be painted over.
- Curing time of silicone is prolonged in low temperature, high humidity and low air circulation environments.

SAFETY INSTRUCTIONS

- The product should not be inhaled directly during application as acetic acid evaporation will occur in contact with air. The environment should be ventilated during application and a protective mask should be worn if necessary.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during product application.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix SM 910

Acetic - shower cabin silicone

DESCRIPTION

It is a one-component, moisture curing, acetoxy-based, solvent-free silicone sealant. It contains 100% polymer. Does not collapse after application. Does not form pores while drying. Resistant against fungus and mold. High elasticity. Resistant to moisture, ozone and UV rays.

AREAS OF USE

- It is used indoors in bathrooms, joinery, kitchens and in different DIY (do-it-yourself) applications, in joints between different materials. Suitable for application on non-porous surfaces such as glazed ceramic tiles, sanitary ware, glass, washbasins, shower cabins, bathtubs, metal, non-oily wood. Not suitable for application on marble, concrete, cement based mortar and plastered surfaces.

FEATURES

Material structure	: Acetoxy silicone
Type	: Sealant
Color	: Transparent / white
Density	: 1.03±0.03 gr/cm³

TECHNICAL PERFORMANCE

Flow rate	: 200 g/min (ISO 6927)
100% Elongation Modulus	: 0.4 Mpa (ASTM D412)
Tensile strength at break	: 1.80 Mpa (ASTM D412)
Elongation at break (%)	: 500 (ASTM D412)
Hardness	: 22 Shore A (ASTM D 53505)

CONSUMPTION

- 10-12 linear meters of application can be made with 310 ml cartridge.

PACKAGING

- In 310 ml plastic cartridge packages (25 pieces per box).

STORAGE AND SHELF LIFE

- The product should be stored out of the sun or frost.
- Shelf life is 12 months, provided that the packages are closed and kept in a dry, dry and cool (+5°C - +25°C) environment. Production date and charge number are indicated on the packaging. If the expiry date of the product has expired, it should be decided whether the product can be used according to the quality control analysis to be performed in the factory laboratory.
- The packaging should be tightly closed when not in use.

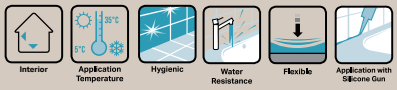
APPLICATION FEATURES

Consistency	: does not flow
Application tool	: silicone gun
Application temperature	: +5 °C - +40 °C
Surface drying	: 10-15 min. (25 °C and 50% relative humidity)
Curing speed, 24 hours	: 3 mm (25 °C and 50% R.H)

SURFACE PREPARATION

- The application surface must be clean and dry, free from residues, oil and dirt that may prevent the silicone from adhering.
- Non-porous surfaces (glass, sanitary ware, etc.) should be thoroughly cleaned with solvent type cleaning materials.
- Since the cleaning material will contain solvent, it should be dried before it evaporates from the surface and leaves no residue.
- The surface can be primed to strengthen adhesion on various substrates.

- Excellent adhesion to many surfaces
- Mold resistant, hygienic
- Does not form pores during drying
- Does not lose its properties at low and high temperatures
- Non-flowing, easy to apply and long-lasting



VitrA Fix SM 910

APPLICATION

- The edges of the joint should be taped for masking along the application line to prevent contamination of the silicone material to materials outside the joint.
- The end of the cartridge packaging is cut diagonally (at a 45° angle) at the appropriate tip thickness, taking into account the joint width. VitrA Fix SM 910 is applied with a silicone gun. The appropriate amount of silicon is sprayed on the surface along the joint line.
- The silicone surface is smoothed with a silicone spatula or silicone pencil without forming a crust.
- After application, masking tapes are removed from the surface. Dried silicone residues can be cleaned with solvent cleaning materials.

PRECAUTIONS

- Avoid contact with marble, cement-based products and natural stones; staining may occur.
- Avoid contact with metal (lead, copper, brass, zinc, etc.) surfaces due to corrosion risk.
- Do not use with organic elastomers such as EPDM, APTK and Neoprene; may cause discoloration.
- Not for bonding glossy surfaces together.
- Not suitable for filling, insulation or bonding in aquariums.
- Cannot be painted over.
- Curing time of silicone is prolonged in low temperature, high humidity and low air circulation environments.

SAFETY INSTRUCTIONS

- Protective gloves should be worn during application. Avoid direct contact of the mixture or components with the skin and wash with plenty of water in case of contact.
- In case of contact with eyes, rinse immediately with water and consult a doctor.
- Absolutely must not be swallowed. In case of ingestion, consult a doctor (if possible, show the packaging information).
- Products should be kept out of the reach of children.
- A doctor should be consulted when necessary.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

VitrA Fix PU SEALANT PU

Polyurethane based expansion and sealing sealant

DESCRIPTION

One component, polyurethane based insulation sealant. It forms an elastic film by curing with moisture in the air. Can be applied in a wide temperature range. Suitable for horizontal and vertical joints.

AREAS OF USE

- Horizontal-vertical expansion joints in buildings
- Glass, aluminum, steel, steel, plastic, ceramic, concrete, etc. It is ideal for filling and sealing the joint corner joints of many building elements.

FEATURES

Chemical Structure : Polyurethane thixotropic paste
Density : 1.25 ± 0.05 gr/cm³ (ASTM D792)
Color : White, Grey

TECHNICAL PERFORMANCE

- Hardness Shore A : 25-30 (ASTM D2240)
- Elongation at Break : ≥ 600 % (ASTM D412)

REFERENCE STANDARD

- CE

CONSUMPTION

- 3 linear meter / 600 ml sausage (for 20 mm joint width, 10 mm joint depth)

PACKAGING

- 600 ml sausage

STORAGE AND SHELF LIFE

- It should be stored in moisture-free, dry and protected against external weather conditions.
- Shelf life is 1 year under appropriate storage conditions.
- Opened packages should be kept tightly closed.

SURFACE PREPARATION

- The application surface must be clean and dry, free from residues, oil and dirt that may prevent adhesion.
- Make sure that the width/depth ratio is 2/1 during application.

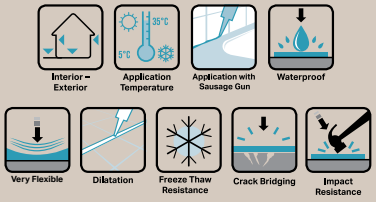
APPLICATION

- Apply the product continuously (without forming bubbles) with support and fill the gap completely.
- You can press and smooth with a spatula or similar tool.

APPLICATION FEATURES

Application Temperature	: +5 °C / +40 °C
Surface Drying Time	: 30-60 minutes (23 °C and 55% RH)
Hardening Time	: 24 hours (for min. 2 mm thickness)
Max. joint spacing	: 4 cm

- Resistant to aging
- Can be painted over
- Resistant to different weather conditions (-30 °C / +70 °C)
- Resistant to various chemicals
- Excellent adhesion to all types of surfaces
- High elasticity and waterproof



VitrA Fix PU SEALANT

SAFETY INSTRUCTIONS

- Do not inhale, avoid contact with skin and eyes.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads etc.) during product application.
- Please read the Material Safety Data Sheet (MSDS) for more detailed safety information.

PRECAUTIONS

- When necessary, joint filler roving should be used to provide the desired depth in the joints.
- If the sealant adheres to three surfaces during application, there is a risk of adhesion failure in the joint material, it should be ensured that it adheres only to two opposite surfaces. In such cases, anti-adhesion (bond breaker) materials should be used between the joint sealant and the surface or filler wick. must be put in place.

Note: Technical values and application instructions are the results of our experience and tests carried out in accordance with international standards, valid at ambient conditions of 23 °C and 50% relative humidity.

AREAS OF USE

ADHESIVE MORTARS											
		FIXER	FLOOR PLUS	FLEXY	FLEXY PLUS	FLEX PORSELEN	POOL	FLEX RAPID	FLEX ULTRA	HP	PurLaM
TILE FORMAT	CERAMİC TİLE, GLASS MOSAİC, MARBLE, NATURAL STONE ETC	≤ 1.600 cm² (40X40 cm)	≤ 1.800 cm² (30X60 cm)	≤ 3.600 cm² (60X60 cm)	"≤ 7.200 cm² (60X120 cm)"	"≤ 7.200 cm² (60X120 cm)"	"≤ 7.200 cm² (60X120 cm)"	"≤ 7.200 cm² (60X120 cm)"	"≤ 14.400 cm² (120X120 cm)" (****)	"≤ 3.600 cm² (60X60 cm)"	"≤ 14.400 cm² (120X120 cm)" (****)
	PORCELAİN TİLE, GRANİTE TİLE, COTTO, CLİNKER ETC		≤ 1.800 CM2 (30X60 CM)	≤ 3.600 cm² (60X60 cm)	"≤ 7.200 cm² (60X120 cm)"	"≤ 7.200 cm² (60X120 cm)"	"≤ 7.200 cm² (60X120 cm)"	"≤ 7.200 cm² (60X120 cm)"	"≤ 14.400 cm² (120X120 cm)" (****)	"≤ 3.600 cm² (60X60 cm)"	"≤ 14.400 cm² (120X120 cm)" (****)
APPLICATION SURFACE	CEMENT BASED PLASTER, SCREED, CONCRETE ETC	●	●	●	●	●	●	●	●	●	
	GYPSUM PLASTER, PANNEL (*)	●		●	●	●		●		●	
	EXİSTİNG TİLE (**)	●	●	●	●	●	●	●	●	●	
	PAİNTİNG	●		●	●	●		●		●	
	WOOD, METAL ETC										●
APPLICATION AREA	INTERİOR	●	●	●	●	●		●		●	●
	EXTERİOR		●	●	●	●	●	●	●		●
	FLOOR HEATİNG SYSTEM, TERRACE, COLD STORAGE		●		●	●			●		
	FLOORS EXPOSED TO HEAVY FOOT TRAFİC (HOSPİTAL, SHOPPİNG CENTER ETC)		●		●	●			●		●
	POOL, TURKİSH BATH, WATER TANK		●			●	●		●		
	EXTERİOR TİLİNG OF CERAMİC (***)		●						●		
	RAPİD TİLİNG OF PLACES (BANK, CAFE, SUPERMARKET ETC)		●					●			

(*) On these surfaces with high absorbency, VitrA Fix FILM PLUS primer should be used before application with cement based products.
(**) On these glossy and smooth surfaces, VitrA Fix FILM PLUS filled primer should be used before application with cement based products.
(***) VitrA Fix FILM primer should be used before application. Application must be done with double-sided adhesion method.
(****) Please contact Koramic Technical Services Department for different sized ceramic tile applications. Suitable for tile application up to 10 m height, max 60x60 cm. Please contact Koramic Technical Services Department for different applications.

JOINT FILLER MATERIALS

		1-6	FLEX 0-5	FLEX 2-12	POOL G 2-10	RUSTIK 3-20	EPOXY ULTRA
TILE FORMAT	WALL TILES, TILES	●	●	●	●		
	FLOOR TILE	●	●	●	●		
	PORCELAIN TILE		●	●	●		●
	GLASS TILE / MOSAIC		●				
	GRANITE CERAMIC	●	●	●	●		●
	MARBLE, NATURAL STONE, GRANITE	●	●	●	●	●	
	POOL TILE				●		●
	METAL TILE						●
APPLICATION AREA	JOINT SPACING	1-6 mm	0-5 mm	2-12 mm	2-10 mm	3-20 mm	2-10 mm
	INTERIOR GENERAL APPLICATION	●	●	●	●	●	●
	EXTERIOR GENERAL APPLICATION		●	●	●	●	●
	WET AREAS, BATHROOM		●	●	●		
	KITCHEN		●	●	●	●	●
	TURKİSH BATH AND SAUNA				●		●
	WALKING AREAS, GARDEN WALL		●	●	●	●	
	TERRACE		●	●	●	●	●
	PARKING				●		●
	INDUSTRIAL PLANT				●		●
	INDUSTRIAL KITCHEN				●		●
	SHOPPING CENTER		●	●	●		●
	HHOSPITAL		●	●	●		●
	INDIVIDUAL POOL				●		●
	THERMAL POOL				●		●
	OLYMPIC POOL						●
	FLEXIBLE FLOORS (WOOD, STEEL STRUCTURES)		●	●	●		
	LABORATORIES				●		●
	FOOD FACILITIES						●

● Suitable for use

WATERPROOFING MATERIALS

			HYDROSTOP	HYDROSTOP UV	PROOF S	PROOF	PROOF F	PROOF UV	PROOF CRYSTAL
APPLICATION AREA	FOUNDATION, CURTAIN AND BASEMENT WALLS								●
	DRINKING WATER TANK					●	●		
	WET AREAS, BATHROOM, KİTCHEN, BALCONY		●		●	●	●		
	TURKİSH BATH AND SAUNA				●	●	●		
	ROOF AND TERRACE	UV-exposed, not traveled on		●				●	
		Before coating				●	●		
		Large areas					●		
	THERMAL/INDİVİDUAL POOL						●		
	OLYMPİC POOL						●		

● Suitable for use

AREAS OF USE

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our latest content and innovations

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General Distribution VitrA Karo
Büyükdere Caddesi Ali Kaya Street No: 7 Levent 34394 Istanbul / TÜRKİYE
Phone: +90.212 350 80 00 - Fax: +90.212 350 84 45

Koramic Construction Chemicals

MANUFACTURER

Bozüyük Factory
Bozüyük O.S.B. 10. Street No: 3 Bozüyük 11300 Bilecik / TÜRKİYE
Phone: +90.228 314 63 00 • Fax: +90.228 314 63 05

Mersin Factory
Huzurkent Tarsus O. S. B. 13. Street No: 10 Tarsus - Mersin / TÜRKİYE
Phone: +90.324.676 40 41 - 676 42 32 - 676 44 49 • Fax: +90.324.676 40 47
www.koramic.com.tr • www.vitrafix.com.tr

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vitrafix.com.tr