

Product data

Verna tile adhesive1



Description:

Verna tile adhesive1 is high performance, deformable white cementitious adhesive made from cement, selected graded sand, a high amount of synthetic resins and special admixtures. Verna tile adhesive 1 is a product with very low emission of volatile organic compounds (VOC), which safeguards the health and safety of installers and users.

Standard:

Complies with Euro norm EN 12004 (C2TES1) AND ISO13007-1 (C2TES1)

Recommended use:

- Bonding all types and sizes of ceramic tiles on irregular internal and external substrates and render without skimming the surface prior to bonding.
- Bonding stone on internal and external surfaces (stable stone, not sensitive to humidity).
- Bonding all types of mosaic on interior and exterior surfaces, also in swimming pools.
- Overlaying ceramic and stone on existing floors (ceramic, marble, etc.).
- Bonding floors subjected to intense traffic.
- Bonding ceramic in areas with poor ventilation close to homes where the amount of dust given off must be reduced to a minimum during mixing operations and when moving the bags.
- Installing tiles on precast concrete walls and concrete substrates.
- Bonding tiles in swimming pools and tanks.

TECHNICAL PROPERTIES: When mixed with water, Verna tile adhesive1 forms a mortar with the following characteristics:

- low viscosity and, therefore, good workability;
- high thixotropy; Verna tile adhesive1 may be applied on vertical surfaces without slumping and without allowing tiles to slip, even large, heavy tiles. Tiles may be bonded in place starting from the upper part of surfaces, working downwards without having to place spacers;
- excellent capacity to absorb deformation in the substrate and in the tiles;
- good capacity to absorb deformations in the substrate and tiles. S1 class adhesive: transversal deformability > 2.5 mm measured according to the test method described in EN 12004;
- adheres perfectly to all materials normally used in the building industry;
- thick layers of adhesive harden without any significant shrinkage and without reducing in thickness to form a very strong layer;
- particularly long open and adjustment times to make laying operations easier.

Consistency: powder
Colour: white
Bulk density: 1400 kg/m³
Dry solids content: 100%

Mixing ratio: 100 parts in weight of Verna tile adhesive1 with 27-29 parts in weight of water
Consistency of mix: paste
Density of mix: 1550 kg/m³
pH of mix: more than 12
Pot life of mix: more than 8 hours

Application temperature: +5°C to +35°C
Open time: > 30 minutes
Adjustment time: approximately 45 minutes
Grouting joints in wall tiles: after 4-8 hours
Grouting joints in floor tiles: after 24 hours
Set to foot traffic: 24 hours
Ready for service: 14 days

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Adhesion:

initial adhesion (28 days)	after application of heat source	after immersion in water	after freeze-thaw cycles
2.6 N/mm ²	2.5 N/mm ²	1.1 N/mm ²	1.3 N/mm ²

alkalis Resistance: Excellent

oils Resistance to: excellent (poor for vegetable oils)

solvents Resistance: excellent

service temperature: -30°C to +90°C

Deformability: S1 - deformable (> 2.5 mm, < 5 mm) according to EN 12004.

Application details:

-Substrate preparation: Substrates must be cured, sufficiently dry, strong and have no crumbling areas or traces of grease, oil, varnish or wax.
Cementitious substrates must not shrink after bonding tiles. Therefore, in good weather, render must be cured for at least one week per cm of thickness and cementitious screeds must be cured for at least 28 days. If the surface is too hot due to direct sunlight, cool it down with water.
Gypsum substrates and anhydrite screeds must be perfectly dry (max residual humidity 0.5%, 0.3% in case of heated screeds), strong and free of dust.

-preparation of the mix: Verna tile adhesive1 with clean water to obtain a smooth, lump-free mix. Let the mix stand for approximately 5 minutes, then blend again.
Use approximately 6.2-6.7 liters of water for each 23 kg bag of powder of Verna tile adhesive1. When mixed as described above, the mix lasts approximately 8 hours.

-spreading the mix: Apply Verna tile adhesive1 on the substrate with a notched spreader has notch size that guarantees optimum buttering of the back of the tile.
To guarantee a good bond, apply a thin layer of Verna tile adhesive1 on the substrate using the smooth side of a spreader and then immediately apply a further layer of Verna tile adhesive1 in the thickness required using a suitable spreader, depending on the type and size of the tiles.
If the substrate is very absorbent and in case of high temperatures, before applying Verna tile adhesive1, it is recommended to wet the substrate in order to extend the open time of the adhesive.
In case of exterior installation, installation of large format ceramic tiles, heating floors, floors to be polished after laying or subject to heavy loads, application in water tanks or swimming pools, apply the back-buttering technique by spreading the adhesive on the back of the tiles to ensure complete buttering. In particular, for the floor laying of thin-thickness porcelain stoneware tiles, it is recommended to apply the adhesive also on the reverse of the plate (with a suitable notched trowel) in order to ensure the total absence of voids, avoiding therefore risks of breakage in operation.

-bonding tiles: Tiles do not need to be wet before they are laid. However, if the backs of the tiles are particularly dusty, wash them by dipping them in clean water.
When applying the tiles, press down firmly to guarantee good buttering.
The open time for Verna tiles adhesive1 is at least 30 minutes in normal weather and humidity conditions. When bonding conditions are not ideal (direct sunlight, dry wind, high temperatures, etc.), or if the substrate is particularly absorbent, this time may reduce to only a few minutes.
Keep checking the adhesive to make sure skin does not form on the surface and that it is still wet. If the adhesive is no longer wet, run the notched trowel over the adhesive again to re-activate open time, or, if the adhesive has already start to set, remove it and spread a new layer of fresh adhesive. Do not wet the surface of the adhesive if skin forms. Water does not dissolve the skin and creates instead a film that impedes a good bond. Final adjustment of the tiles must be carried out within 45 minutes of bonding.
Floor and wall coverings bonded with Verna tile adhesive1 must be protected from water and rain for at least 24 hours and from freezing weather and direct sunlight for at least 5 to 7 days.

Tiles Grouting: Tile joints may be grouted after 4 to 8 hours on walls and after 24 hours on floors.

Set for light traffic: Surfaces may be put into service after 14 days.

Ready for use: Basins and swimming pools may be filled up 21 days after the application of Verna tile adhesive1

Consumption: 1.2 kg/m² per mm of thickness

Package: Vera tile adhesive S1 is supplied in 23 kg paper bags.

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- Storage:** Verna tile adhesive S1 may be stored for 12 months in its original packaging in a dry place.
- Cleaning:** Clean tools and containers with water while Verna tile adhesive1 is still wet.
Clean the surface of wall and floor coverings with a damp cloth before the adhesive hardens.
- Caution:** Do not use Verna tile adhesive S1 in the following cases:
- on not sufficiently cured concrete.
 - on wood or wooden conglomerates;
 - on metal, rubber, PVC, and linoleum surfaces;
 - for slabs of marble and natural stone which are subject to efflorescence or staining;
 - with natural stone or composite slabs subject to movements caused by dampness;
 - when floors need to be put back into service quickly. Do not add water to the mix once it starts to set.
 - Do not add water to the mix once it starts to set.

This Product Data Sheet supersedes those previously issued.

For explanations, definitions and scope, see "Explanatory Notes" available . Data, specifications, directions and recommendations given in this data sheet represent only test results or experience obtained under controlled or specially defined circumstances. Their accuracy, completeness or appropriateness under the actual conditions of any intended use of the Products herein must be determined exclusively by the Buyer and/or User.

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