

PRODUCT DATA SHEET

SikaCeram[®]-502 TG AE

WATER RESISTANT, POLYMER MODIFIED, CEMENTITIOUS TILE GROUT

DESCRIPTION

SikaCeram[®]-502 TG AE is a 1-component, polymer modified and water resistant cementitious tile grout for joints of up to 6 mm. It is particularly used in conjunction with SikaCeram[®] tile adhesives. Suitable for use in hot and tropical climatic conditions.

USES

SikaCeram[®]-502 TG AE is suitable for grouting joints in:

- Ceramic tiles
- Suitable for indoor and outdoor application
- Brick, marble and stone
- Terrazzo

CHARACTERISTICS / ADVANTAGES

Easy to use, requires only the addition of water

- Long open time (enough time to clean residues from the tiles after application)
- Hardens without cracking or shrinkage
- Water-repellent and impermeable to many liquids
- Good abrasion resistance
- Very good adhesion to unglazed surfaces
- Available in various colours
- Mould-inhibiting and fungicide
- UV resistant

APPROVALS / CERTIFICATES

SikaCeram[®]-502 TG AE complies to requirements of EN 13888 for class CG2 A and follows the main requirements of ANSI 118.6 for standard unsanded cement grout and compressive strength for ANSI 118.7.

PRODUCT INFORMATION

Composition	Cement, polymers, fillers and additives.
Packaging	5 kg plastic bag 20 kg paper bag
Shelf life	Plastic bag - 24 months from date of production. Paper bag - 12 months from date of production.
Storage conditions	Store in cool and dry conditions in unopened, undamaged and sealed original packaging at temperatures between +10 °C and +40 °C. Protect from direct sunlight, heat and moisture.
Appearance and colour	Grey, white and off-white. Further colours upon request subject to minimum order, as per Sika's colour chart.
Maximum grain size	0.150 mm

TECHNICAL INFORMATION

Abrasion resistance	≤ 1 000 mm ³	(EN 12808-2)
Compressive strength	≥ 15 N/mm ² (after dry storage)	(EN 12808-3)
Tensile strength in flexure	≥ 2.5 N/mm ² (after dry storage)	(EN 12808-3)
Shrinkage	≤ 3.0 mm/m	(EN 12808-4)
Water absorption	≤ 5.0 g (30 min) ≤ 10.0 g (240 min)	(EN 12808-5)
Joint width	Max. 6 mm	

APPLICATION INFORMATION

Mixing ratio	Cold, clean water by weight of powder: 1.5 L per 5 kg bag and 6.0 L per 20 kg bag (grey, white and off-white) 1.4 - 1.5 L per 5 kg bag and 5.6 - 6.0 L per 20 kg bag (other colours)	
Fresh mortar density	~1.60 kg/l (grey, white and off-white) ~1.80 kg/l (other colours)	
Consumption	<p>Consumption of SikaCeram®-502 TG AE is dependent on the surface profile and roughness of the substrate as well as on the size of the tiles and the joints between them.</p> <p>As a general guide, the approximate consumption can be calculated by volume, where ~1,6 - 1,8 kg/m²/mm of material is required, depending from colour.</p> <p>Consumption of tile grout can be also calculated through the following formula:</p> <p>$((L1+ L2) \times W \times T \times D) / (L1 \times L2)$, where:</p> <ul style="list-style-type: none">▪ L1 = Length of tile (mm) - First side▪ L2 = Length of tile (mm) - Second side▪ W = Joint width (mm)▪ T = Tile thickness (mm)▪ D = Fresh mortar density of tile grout (kg/l) <p>Note: Final result will be in kg/m².</p> <p>Note: All figures are theoretical and for indicative purpose only. They do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage, etc.</p>	
Ambient air temperature	+5 °C min. / +40 °C max.	
Substrate temperature	+5 °C min. / +40 °C max.	
Pot Life	~45 min (grey, white and off white at +25 °C) ~30 min (other colours at +25 °C)	
Waiting time	(+25 °C)	
	Available time for cleaning residual material	60 minutes with water and sponge material
	Foot traffic	Min. 24 hours
	Fully serviceable	Min. 7 days

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.



IMPORTANT CONSIDERATIONS

- Do not exceed the recommended amount of water in the mix. The mix must never be fluid.
- When coloured materials are applied for aesthetics such as on polished porcelain or natural stone tiles, always carry out cleanability testing prior to the application.
- On highly absorbent tiles, it is always recommended to thoroughly pre-dampen the surface (SSD) before grouting.
- Always apply SikaCeram®-502 TG AE in a continuous operation and do not interrupt this for more than two hours in the same room or area of tiling.
- Do not add anything to the product that is not specified in this Product Data Sheet.
- For brick, marble and stone tile grouting is recommended to check staining effect.
- Do not use acid based cleaner to wipe down SikaCeram®-502 TG AE.
- Excess water and ventilation, temperature variations, application on very porous tiles or on substrates leading to rapid water absorption etc. can result in colour shade variations.
- Avoid significant temperature variation during application and setting times, as well as excessive draughts, forced ventilation or winds.
- Avoid application in direct sunlight.
- Prevent water contact with the freshly applied material during cleaning operations, or from excess atmospheric humidity and condensation or residual moisture in the substrate, etc..
- Protect freshly applied material from rain and water splashes until cured.

SikaCeram®-502 TG AE must not be applied in the following situations:

- For any applications not explicitly described in this Product Data Sheet.
- On water immersed areas like swimming pools.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

SUBSTRATE QUALITY / PRE-TREATMENT

- Substrates must be properly cured, structurally sound, clean, dry and free of all contaminants such as dust, dirt, oil, grease, cement laitance, efflorescence, previous coatings, or any other surface treatments or obstructions such as excess tile adhesive, tile joint spacers, etc..
- Depending on the contaminants to be removed, perform adequate preparation techniques, such as jet washing or blastcleaning, in order to remove all traces of any materials that could reduce the product's adhesion on the substrate.

- For applications in hot climates / environments, or on absorbent substrates, thoroughly pre-dampen the surface immediately prior to the product application, but avoid any ponding / standing water on the surface, which must not be damp to touch and not with a dark-matt / wet surface appearance i.e. it must be saturated surface dry (SSD).

MIXING

- Pour the recommended amount of water into a suitable, clean mixing container. Stir slowly, whilst slowly adding the SikaCeram®-502 TG AE powder to the water and then mix thoroughly using a low speed (<500 rpm.) drill mixer until the material is fully homogeneous and lump free.
- After mixing, leave the product to stand and 'mature' for a few minutes, then briefly stir again prior to application. The finished mix has a very creamy consistency, is uniformly coloured and it is easy to apply and spread.
- For areas requiring only small quantities, these can be mixed by hand, however please measure the water : powder ratio carefully, as even small differences in the mix ratio between batches can result in colour shade variations.
- Premature exposure to water or excess water in the mix can result in white efflorescence on the grout surface.
- In case of high-performances demanding applications, such as heavy-traffic floors, replacement of mixing water with SikaLatex® or SikaBond® DV is suggested.

APPLICATION

- SikaCeram®-502 TG AE is applied using a rubber blade or trowel using cross-hatch techniques, taking care to ensure the joints are filled uniformly across the whole width and along their full length.
- Using the same blade/trowel in a vertical position, remove the excess from the surface of the tiles.
- When the material starts to set, it is possible to begin the initial cleaning step, using a damp sponge. The remaining grout traces on the tile surfaces can easily be removed the next day by wiping with a clean, soft dry cloth. When SikaLatex® or SikaBond DV® has been used instead of water in the mix, this additional step should be done immediately after the initial cleaning with a damp sponge.
- Avoid application in direct sunlight and/or in excessive draughts or strong winds.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with clean water immediately after use. Hardened / cured material can only be mechanically removed.



LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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All products are supplied under
a management system certified
to conform to the requirements
of the quality, environmental
and occupational health &
safety standards ISO 9001,
ISO 14001 and ISO 45001.

