

PRODUCT DATA SHEET

SikaCeram[®] StarGrout

Epoxy floor / wall tile coloured adhesive and grout



DESCRIPTION

SikaCeram[®] StarGrout is a 2-part, epoxy floor / wall tile coloured adhesive and grout. It has a smooth glossy finish which provides a durable chemical resistant surface for demanding applications and high cleanliness requirements.

USES

Bonding the following types of tiles:

- Ceramic
- Glass
- Wood
- Marble and other natural stones

Bonding and grouting tiles for the following applications:

- Swimming pools (including sea-water pools)
- Thermal pools
- Turkish baths
- Private and public bathrooms
- Commercial / Industrial / Residential kitchens
- Dairies
- Tanneries
- Paper-mills
- Laboratories
- Slaughterhouses
- Interior and exterior use

CHARACTERISTICS / ADVANTAGES

- Grout joint range: 1–15 mm
- Good chemical resistance
- Very good workability
- Easy application
- Easy to clean joints
- Tough
- Very low water absorption
- Stain resistant
- Frost proof
- Mould-inhibiting
- Abrasion resistant

SUSTAINABILITY

- VOC emission classification GEV-Emicode EC1PLUS, license number 9008/20.10.00

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 12004 - Adhesives for ceramic tiles. Classification: R2 T

PRODUCT INFORMATION

Composition	Epoxy resin, quartz aggregates and special additives		
Packaging	3 kg container (Parts A+B)		
Appearance / Colour	Part A	Coloured paste	
	Part B	Viscous liquid	
	Part C (optional)	Glitter particles	
	Colours:		
	White	Light grey	Manhattan
Anthracite	Jasmine	Beige	Caramel
Dark brown	Total black		
Shelf life	24 months from date of production		
Storage conditions	Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.		
Density			
Maximum grain size	D _{max} : 0,2 mm		
Product declaration	<ul style="list-style-type: none">EN 12004: Adhesives for ceramic tiles. Class: R2 TEN 13888: Grout for tiles. Class: RG		

TECHNICAL INFORMATION

Abrasion resistance	≤ 250 mm ³	(EN 12808-2)	
Compressive strength	After dry storage	≥ 45 N/mm ²	(EN 12808-3)
	After freeze/thaw cycles	≥ 45 N/mm ²	
Tensile strength in flexure	After dry storage	≥ 30 N/mm ²	(EN 12808-3)
	After freeze-thaw cycles	≥ 30 N/mm ²	
Shrinkage	≤ 2 mm/m	(EN 12808-4)	
Tensile adhesion strength	Initial	≥ 3,0 N/mm ²	(EN 12003)
	Water immersion	≥ 2,0 N/mm ²	
	Thermal shock	≥ 2,0 N/mm ²	
Chemical resistance	Resistant to many chemicals. Contact Sika Technical Services for additional information		
Water absorption	After 240 min	≤ 0,1 g	(EN 12808-4)
Skid / slip resistance	≤ 0,5 mm	(EN 1308)	
Service temperature	-20 °C min. / +100 °C max.		
Joint width	1–15 mm		

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 94 : 6 Optional: 90g of glitter particles		
Fresh mortar density	~1,7 kg/l		

Consumption

Tile adhesive

Consumption is dependent on the substrate, surface profile, roughness, size of the tiles, the joints between them and application technique. (single spreading/floating method or double spreading/buttering method).

As a guide for a single adhesive layer:

Size of tiles	Notched trowel size	Consumption
Small	6 mm	~2 kg/m ²
Medium	8 mm	~2,5 kg/m ²
Large	10 mm	~3 kg/m ²

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Tile grout

The consumption is dependent on the size of the tiles, joint width and depth.

As a guide, consumption is indicated in following table and is expressed in g/m²

Tile Size Centimetres	Joint width			
	1 mm	5 mm	10 mm	15 mm
Glass mosaic	519			
5 × 5 × 0,4	264	1180	2078	2 776
10 × 10 × 0,6	201	948	1770	2 487
15 × 15 × 0,9	202	971	1853	2 655
20 × 20 × 0,9	152	737	1422	2 060
30 × 30 × 1	113	553	1079	1 580
30 × 60 × 1	85	417	818	1 204
50 × 50 × 1	68	335	660	976
60 × 120 × 1,1	47	231	459	681

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Consumption can also be calculated using the following formula:

$$S \times [(a+b+l)/(a+l)(b+l)] \times l \times h \times d \times 10\,000$$

S = Whole surface (m²)

a, b = Tile size (cm)

l = Joint size (cm)

h = Tile thickness (cm)

d = Fresh mortar density (kg/l)

Ambient air temperature	+10 °C min. / +30 °C max.	
Substrate temperature	+10 °C min. / +30 °C max.	
Pot Life	~45 min	
Waiting time	Before grouting on floor tiles laid with:	Waiting time
	Normal-setting adhesive	24–36 hours
	Fast-setting adhesive	4–6 hours
	Thick-bed (traditional) adhesive	8–10 days
	Before grouting on wall tiles laid with:	
	Normal-setting adhesive	4–6 hours
	Fast-setting adhesive	2 hours
	Above times are indicative. Always consult the appropriate tile adhesive Product Data Sheet.	
Applied product ready for use	Use	Waiting time
	Pedestrian traffic	24–36 hours
	Full traffic	~7 days
	Water immersion	~7days

Values determined in laboratory conditions: +23 °C ± 2 °C, R.H. 50 % ± 5 %.

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

- For natural stone tiles, always carry out a preliminary test application first.
- Avoid application in direct sunlight and/or strong wind / draughts.
- Do not use on marble or natural stone tiles if they are susceptible to discolouration.
- Refer to tile manufacturer's instructions for guidance on providing expansion joints.
- When coloured grout is applied for aesthetics such as on polished porcelain or natural stone tiles, always carry out cleanability testing on a small area prior to full application.
- Ensure grout has set sufficiently before carrying out the tile cleaning procedure to avoid grout being removed from joint.
- The addition of glitter particles in the grout can have an impact on the final colour of the joint. Carry out a preliminary test prior to use to check final finishing.
- Do not use for any applications that are not explicitly described in this Product Data Sheet.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Mixing

- Electric single paddle mixer (< 500 rpm) with spiral paddle

Application

- Notched trowel
- Trowel
- Rubber blade
- Sponge
- Soft cloth
- Grout finishing tool

SUBSTRATE QUALITY / PRE-TREATMENT

Tile adhesive

The substrate can be one of the following materials: Cementitious, gypsum, paint coating, tiles, metal, glass fibre reinforced plastic.

For other types of substrates, contact Sika Technical Services for additional information before use
Cementitious substrates must be sufficiently cured and dried (2-6 weeks).

All substrates must be structurally stable, able to support the weight of the new tiling and provide a firm and securely fixed background. Surfaces must be clean, dry, free of any loose or friable particles, contaminants such as dust, dirt, oil, wax polish, grease, cement laitance or efflorescence.

Depending on the substrate condition and contaminants to be removed from the surface, use adequate preparation techniques to remove all traces of any materials that could reduce the product's adhesion to the substrate. Smooth surfaces must be roughened lightly to improve adhesion. To confirm adequate surface preparation and adhesion, carry out a small trial before full application.

Any small surface defects and variations in level, profile, or around exposed aggregates can be prefilled and levelled with an additional layer of SikaCeram® StarGrout to a maximum thickness of 5 mm, applied at least 24 hours before full adhesive application. For larger and thicker areas of surface re-profiling and making good, use suitable mortars from the Sika Mono-Top® or Sikafloor® Level range.

When laying tiles on non-absorbent or substrates with limited absorbency, such as existing ceramic tiles, painted surfaces etc. Check to confirm these surfaces are all stable, firmly and securely bonded. Then use suitable degreasing / descaling products to thoroughly and completely clean the surface.

For tiling in constantly damp or wet rooms, a suitable Sika® waterproofing product / system must be applied to the substrate before tiling.

Tile grouting

Check joints are dry, clean, clear of excess adhesive, contaminants and tile joint spacers. Remove from joint before grout application.

MIXING

SikaCeram® StarGrout is a reactive product. It sets from a chemical reaction between the 2 parts, A and B. It is therefore essential these parts are thoroughly mixed at the correct mixing ratio.

Prior to mixing all parts, mix Part A (resin) briefly using an electric single paddle mixer with a spiral paddle.

Mix liquid and all the coloured pigment until a uniform colour has been achieved.

Add part B (hardener) to part A and mix parts A+B continuously until a uniformly coloured smooth consistency mix has been achieved. Mix full units only.

For a glitter effect finish to the tile grout, add the glitter particles to the fully mixed paste and mix until completely dispersed.

APPLICATION

Tile Adhesive

SikaCeram® StarGrout is applied using a suitable notched trowel.

Apply sufficient adhesive to the prepared fixing surface with the appropriate trowel / comb to the required bed thickness. Apply sufficient product to ensure adequate 'wetting' of the backs of the tiles.

Tiling must be carried out on freshly applied adhesive, exerting adequate pressure to ensure 100% complete and uniform contact with the adhesive to achieve optimum adhesion.

If a skin forms on the surface of the adhesive, immediately remove the adhesive layer with the trowel, discard material and apply a fresh layer of SikaCeram® StarGrout adhesive.

Adjust tiles if required.

Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

After the required waiting time apply the appropriate grout into the tile joints.

SikaCeram® StarGrout is suitable for laying absorbent and non-absorbent tiles indoors without any size or support limits.

On cementitious substrates, SikaCeram® StarGrout can be used for laying non-absorbent tiles outdoors up to 10 000 cm² (e.g. 60 × 120 cm). On non-heated floors and indoor applications up to 7000 cm² (e.g. 80 × 80 cm). For facade application, mechanical clamps are recommended.

For tiles > 900 cm² (e.g. 30 x 30 cm), the double-spreading (buttering) technique is always recommended.

Tile Grout

Check adhesive has fully set before grouting
SikaCeram® StarGrout is applied using an appropriate tool such as a grout spreader, squeegee or grouting float/trowel.

Completely fill and compact the joints uniformly. If required, finish grout with a grout finishing tool while grout is wet.

Using the same spreader/ float, remove excess grout from the tile surfaces moving the tool diagonally across the joints.

When the grout is touch dry. Use a damp sponge or sponge float to clean the tile surfaces. Clean sponge regularly with clean water. For tiles with a textured surface, use a soft wet cloth to emulsify the grout while cleaning.

When grout has set hard enough in the joint (finger nail hard). Polish the tile surfaces by wiping with a clean, soft dry cloth.

General information

Protect from adverse weather conditions, such as extremely high or low (freezing) temperatures, rain, direct exposure to sun, for at least 12–24 hours from application.

CLEANING OF EQUIPMENT

Removal of fresh remnants from tools and application equipment can be carried out using water immediately after use. Hardened / cured material can only be mechanically removed.

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Product Data Sheet

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LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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