BUILDING TRUST

PRODUCT DATA SHEET

SikaCeram®-801 RTG

TWO-PACK, EPOXY BASED, THIXOTROPIC, WATER CLEANABLE TILE GROUT AND TILE ADHESIVE

DESCRIPTION

SikaCeram®-801 RTG is a two-pack tile grout and tile adhesive, based on epoxy resin, featuring a smooth surface in various colours. It is ideal for applications in areas demanding perfect cleanliness, high chemical and mechanical resistance.

Suitable for use in hot and tropical climatic conditions.

USES

SikaCeram®-801 RTG is suitable for grouting and bonding of the following types of tiles:
- Ceramic and porcelain tiles
- Ceramic-, glass-, marble-, wood- made mosaic
- Marble and other natural stone

On the following surfaces, as tile adhesive indoor and outdoor, on floors and walls:
- Gypsum or cement based substrates
- Old tiles
- Iron
- Fiberglass reinforced plastic

For the following areas of use:
- Swimming pools (including seawater pools), thermal pools, private and public bathrooms, GRP pools, fountains, etc.
- Kitchens, dairies, tanneries, paper-mills, laboratories of all kinds, slaughterhouses, professional kitchens, etc.

CHARACTERISTICS / ADVANTAGES

- Good chemical resistance
- Excellent workability and easy application
- Water cleanable
- Tough
- Non shrinkable
- Stain resistant
- Long open time
- Mould-inhibiting
- Abrasion resistant

SUSTAINABILITY

- SikaCeram®-801 RTG is certified according "Low Emitting Materials as per Al Sa'fat - Dubai Green Building Evaluation System" by Dubai Central Laboratory (DCL), certificate No. CL17020432
- California Department of Public Health (CDPH) Method - VOC emission test: PASS

APPROVALS / CERTIFICATES

- Resin tile grout: SikaCeram®-801 RTG follows the main requirements of ANSI 118.3, ANSI 118.8 and EN 13888, class RG.
- Tile-setting resin adhesive: SikaCeram®-801 RTG follows the main requirements of ANSI 118.3, ANSI 118.8 and EN 12004, class R2 T.

PRODUCT INFORMATION

Composition	Epoxy resin, quartz aggregates and specific admixtures
Packaging	Part A 4.55 kg Part B 0.45 kg Part A + B 5 kg set Part A 9.10 kg Part B 0.90 kg Part A + B 10 kg set
Shelf life	12 months from date of production if stored properly
Storage conditions	Store in a cool, dry area in original sealed packaging and at temperatures between +5 °C and +35 °C. Protect from direct sunlight, heat and moisture.
Appearance and colour	Available in various colours. Please refer to Sika's tile grout colour chart.
Density	Mixed: ~1.8 kg/l

TECHNICAL INFORMATION

Compressive strength	≥ 80 N/mm²		(ASTM C579)
Shear adhesion strength	Shear strength (14 days): Shear strength after thermal shock (14 days):	> 6.5 N/mm² > 6.0 N/mm²	(ANSI 118.3)
Shrinkage	~0.09 % (3 days)		(ASTM C531)
Water absorption	≤ 0.1 g (after 240 min.)		(EN 12808-5)
Chemical resistance	Very good to: 10% Lactic acid, 10% Citric acid, 40% Phosphoric acid, 50% Hydrochloric acid, 50% Sulphuric acid, Concentrated bleach, Saturated sugar solution, Saturated urea solution, White spirit, Oil, Petrol, Greases, Xylene, 10% Ammonia, 50% Caustic soda Good to: Butanol, Skydrol		
Joint width	0.5 mm min. / 6 mm max.		

APPLICATION INFORMATION

Consumption

As tile adhesive:
Consumption is dependent on the surface profile and roughness of the substrate, as well as on the application technique (single spreading/floating method or double spreading/buttering method).
As a guide, the approximate consumption is 3.7 kg/m² at 2mm thickness.

As tile grout:
Consumption 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.
As a general guide, the approximate consumption can be calculated by volume, where ~1,8 kg/m²/mm of material is required.
Consumption of tile grout can be also calculated through the following formula:
((L1+ L2) x W x T x D) / (L1 x L2) , where:

- L1 = Tile length (mm)
- L2 = Tile width (mm)
- W = Joint width (mm)
- T = Tile thickness (mm)
- D = Density of tile grout (kg/l)

Note: Final result will be in kg/m² .
Note: All figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.

Ambient air temperature	+5°C min. / +40°C max.		
Substrate temperature	+5°C min. / +40°C max.		
Pot Life	Working time (23 °C):	~45 minutes	(ASTM C308)
	Initial setting time (23 °C):	~180 minutes	(ASTM C308)
	Note: The potlife begins when the resin and hardener are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the potlife.		

Applied product ready for use

Use	Waiting time
Light foot traffic	24-36 hours
Full traffic	~7 days
Water immersion	~7 days

Note: Values are obtained in laboratory condition. As a general rule, higher temperatures reduce indicated waiting time and lower temperatures increase them.

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.

FURTHER INFORMATION

VOC content (US EPA 24): < 20 g/l
VOC emission (CDPH): Pass
Water cleanability (ANSI 118.3 - 5.1): The mixed material is spreadable and water cleanable at 80 minutes (23 °C).

IMPORTANT CONSIDERATIONS

- Always perform a test on cleanability and staining before grouting/bonding natural stone or any type of tile with absorbent or porous surface.
- Use a soft felt to emulsify the product while cleaning in case tiles with structured surface.
- Always perform a preliminary test on cleanability if applying on tiles in colour contrast.
- Do not partialy mix. Mix only full sets.
- Do not add fillers or solvents.
- Chemical exposure may leads to discoloration / staining.
- Contact Sika's Technical Department prior applying on metal or plastic substrates.

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

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.
Joints should be cleaned at least to two thirds of the depth of the tile.

MIXING

SikaCeram®-801 RTG is a reactive product. This means that it sets through a chemical reaction between the two components A and B. It is therefore crucial to ensure that these components are thoroughly mixed with the correct mixing ratio.
Thouroughly mix the base (Comp. A). After mixing the base, pour all the hardener (Comp. B) into the container of the base (Comp. A) and mix with an electric low speed drill (~350 rpm.) mixer equipped with a suitable mixing spiral. Mix thoroughly for approx. 3 minutes, until the material is fully homogeneous and lump free. The finished mix has a very creamy consistency, is uniformly coloured and it is easy to apply and spread.

APPLICATION

Tile grout:
SikaCeram®-801 RTG 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 product starts to set, it is possible to begin the cleaning step. Squeeze a sponge soaked in water over the grouted surface and emulsify the product by performing circular movements, taking care not to damage the joint.
Frequently rinse the sponge with fresh water during the cleaning operation. Be careful not to wash out the grout.
After cleaning, carefully check if the tiles are completely free from any traces of the grout. Once hardened, the product can only be mechanically removed.
Tile adhesive:
SikaCeram®-801 RTG is applied using a notched trowel. Apply sufficient product to ensure complete 'wetting' of the backs of the tiles. Tiling must be carried out on freshly applied adhesive, exerting adequate pressure to ensure complete and uniform contact with the adhesive and thus optimum bond. If a film is seen to form on the surface, the adhesive has been left for too long; should this happen, then immediately remove the adhesive layer with the trowel, discard this material and apply a fresh layer of SikaCeram®-801 RTG adhesive. Avoid application in direct sunlight and/or strong wind / draughts. To lay any tiles larger than 900 cm^2 (e.g. 30×30 cm), the double-layer 'buttering' technique is always recommended.
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

Clean all tools and application equipment with water and/or Sika's Thinner C immediately after use.
Hardened and/or cured material can only be removed mechanically.

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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