BUILDING TRUST

PRODUCT DATA SHEET

SikaCeram®-707

(formerly MTile 707)

HIGH PERFORMANCE, WATER CLEANABLE, EPOXY BASED TILE GROUT AND TILE ADHESIVE

DESCRIPTION

A two-component, epoxy resin based adhesive and grout for permanent bedding and grouting of all types of tiles, natural stones and agglomerates.
Suitable for use in hot and tropical climatic conditions.

USES

SikaCeram®-707 is used wherever a high degree of chemical resistance and high mechanical properties are required.
Areas of application:

- Suitable for indoor and outdoor use
- Suitable for walls and floors
- Suitable for chemical-resistant and water-impermeable laying and grouting of wall and floor coverings made of ceramic tiles, mosaic as well as bricks on renders, cement screeds, concrete and timber chipboards.
- Suitable for ceramic coverings in dairies and bakeries, soft drink industries, Industrial and canteen kitchens, butcheries, slaughter houses, fat processing industries, battery rooms, galvanization, electrical substations and plants rooms, dye works, bleaching works, tanneries, paper mills, laboratories and hospitals.
- Suitable for laying and grouting of ceramic tiles in swimming pools, hot springs, baths in hospitals as well as for ceramic tiles in shower facilities or wellness areas.
- Suitable for laying and grouting of ceramic tiles in administration buildings, hotels, schools, toilets, sewage plants, sewers, cattle stabling and for stairs exposed to de-icing salt.

FEATURES

- Water cleanable
- Non-absorbent
- Excellent workability and easy application
- Resistant to chemicals, a variety of acids, lye, grease and oil
- Water impermeable and water vapour barrier, protects moisture-sensitive substrates from water and moisture
- High wear resistance, resistant to rolling and grinding loads, insensitive to cleaning by steam jet
- Will not support bacterial growth in kitchens and swimming pools
- Crack-free curing and setting without shrinking, very high adhesion to joint sides
- Resistant to frost and weathering, multipurpose use for vertical, horizontal, external and internal applications
- High mechanical strength, low modulus of elasticity, therefore superior to cement-based joint grouts
- Produces smooth joint surfaces low in pores and easy to clean
- Almost odourless, no unpleasant odour during the application

CERTIFICATES AND TEST REPORTS

- SikaCeram®-707 meets the requirements of EN 13888 for RG Class
- SikaCeram®-707 meets the requirements of EN 12004 for R2T Class
- SikaCeram®-707 meets the classification requirements of ANSI 118.3

PRODUCT INFORMATION

Composition	Epoxy resin with fine fillers and pigments
Packaging	5 kg combined unit (Part A + Part B)
Colour	Available in various colours. Please refer to Sika's tile grout colour chart.
Shelf life	12 months from date of production
Storage conditions	Store in undamaged, original sealed packaging in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight, heat and moisture.
Density	~1.6 kg/l (mixed, at 25°C)

TECHNICAL INFORMATION

Chemical resistance	Excellent resistance to most aqueous systems including sewage, urine, salt water, dilute acids, oils and fats. For further information, please contact Sika's sales representative.
Temperature resistance	-20°C min. / +60°C max. Note: No simultaneous chemical and mechanical exposure
Joint width	2 mm min. / 10 mm max.

APPLICATION INFORMATION

Mixing ratio	Part A (base) : Part B (hardener)= 4 : 1

Consumption

As Tile Grout:

Size of tile:	Theoretical coverage (5 kg set):
Tiles 15 cm / 15 cm / 5 cm	~3.6 m²
Medium Mosaics 5 cm / 5 cm / 3mm	~4 m²

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 ~1,6 kg/m²/mm of mixed 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.

As Tile Adhesive:

Consumption and coverage depends on the surface profile and roughness of the substrate, size and reverse profile of the tiles and the placing technique (simple placing "floating" or back to back "buttering-floating").
As a guide for simple placing technique:

Required notch size:	Quantity of mixed material:
4 mm	~1.7 kg/m²
6 mm	~2.5 kg/m²
8 mm	~3.2 kg/m²
Solid bed application (min. 2 mm thickness)	~3.2 kg per 2 mm thickness

For small sized tiles (side ≤ 30 cm), use small squared notch size trowel (4-6 mm) and progressively increas for medium tiles (side ≤ 45 cm, trowel 6-8 mm) or large tiles (side ≤ 60 cm, trowel 8-10 mm).

	Note: All figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.
Layer thickness	Min. 2 mm When using multiple units, one after the other, do not mix the following unit until the previous one has been used in order to avoid a reduction in handling time.
Ambient air temperature	+10°C min. / +40°C max.
Dew point	Beware of condensation. Substrate temperature during application must be at least 3°C above dew point.
Substrate moisture content	< 5 % pbw moisture content. Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM D4263 (Polyethylene-sheet).

Open Time

Temperature and relative humidity:	Open Time:
+25°C and 50 % r.h.	~60 minutes
+40°C and 50 % r.h.	~30 minutes

Curing time

Normally reactive resin products require at least 7 days curing at 25°C to achieve the specified performance and service expectations. At lower temperatures the curing period will be extended.

Application time

Application:	Time:
Working time	~45 minutes
Cleaning / Emulsifying	~20 - 30 minutes

Applied product ready for use

As Tile Adhesive:	Min. Waiting time:
Wall grouting	~4 hours
Floor grouting	~16 hours
Light foot traffic	~16 hours

As Tile Grout:	Min. Waiting time:
Light foot traffic	~16 hours
Full traffic	~7 days
Water immersion	~7 days
Chemical resistance	~7 days

Values determined in laboratory conditions: +23°C ± 2°C, R.H. 50 % ± 5 %. Higher temperatures will reduce the indicated waiting times, lower temperatures will increase the indicated waiting time.

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.
- Internal Reference - Version: MBS_CC-UAE/ Tile_707_04_13/v2/08_15/v3/09_19

FURTHER DOCUMENTATION

- General Method Statement (GMS)

IMPORTANT CONSIDERATIONS

- Protect from adverse weather conditions, such as extremely high or low temperatures, rain, direct exposure to sun, wind, etc. for at least 24 hours from application.
- Vertical fixing of tiles with the SikaCeram®-707 is possible, large format very heavy tiles may need additional support to prevent slippage.
- Avoid application in direct sunlight.
- Always perform a test on cleanability and staining before 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 add fillers, water or solvents.

- For application as tile adhesive above waterproofing layers, please contact Sika's Technical Department.
- Movement joints where appropriate should be filled with suitable sealant from Sika's range, for normal practices refer to the BS Standard 5385.
- Tiling should be in accordance with relevant international Codes of Practice.
- Generally, exposure to high exterior temperatures of 40°C will have some effect on the tiles and pot life of the mix.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

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®-707 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 (Part A). After mixing the base, pour all the hardener (Part 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

BEDDING:
Apply the mixed SikaCeram®-707 to the substrate using a suitably sized notch trowel i.e: 4 mm, 6 mm or 8 mm depending on the size and thickness of the tile. Solid bed fixing can be achieved by back buttering the tile with a thin layer of SikaCeram®-707 before fixing into the notched bed. Ensure that the size of the area can be tiled within the pot life of the SikaCeram®-707.

TILING:
Tiles should be pressed into place and properly aligned when bedded, ensure at least 80% of the tile back is in contact with the adhesive. A minimum tile joint width of 2 mm must be left for the grouting and 3 mm where thicker tiles are used.

GROUTING OF WALLS AND FLOORS:
The grouting of the tile joints can be carried out after 24 hours when the bedding has fully hardened.
Apply the mixed grout to the tile joints using a hard rubber float ensuring full compaction, avoid spreading the grout over the tiles (with the exception of Mosaics) as this will increase the cleaning time. Clean all excess surface grout from the tile by holding the rubber float at 90 degrees and diagonal to the tile joint and scrape away the excess. Allow the grout to firm in the tile joints which will be approximately 10-15 minutes for the SikaCeram®-707 (depending on the ambient temperature). First cleaning can be done with a sponge float or good quality firm sponge and warm water wiping in a circular motion to form the joint profile. A further cleaning can be given as soon as the grout is firm enough not to be washed out of the joint. Do not allow the resin harden on the tiles surface. When the joint is fully firm, clean off any surplus grout or haze with a sponge and warm water. In the case of floor tiling immediately restrict the area from foot traffic. To maintain the appearance of the new installation, cover and protect as soon as the grout has hardened.

WASHING OF GROUTED AREAS:
After approx. 5-10 minutes give first wash with warm water and hard epoxy sponge or pad, rubbing in a circular motion.
Then wash with a soft viscous sponge (e.g. PCI epoxy sponge soft), rinsing out sponge frequently.
For easier cleaning of the remaining haze (after approx. 15 minutes) customary citric acid (mixing ratio: 50 g citric acid for approx. 6 litres of water) can be added to the warm, clear wash water. When the joint grout has cured, remaining haze can also be removed with this wash water; major contamination can be cleaned with the special epoxy cleaner.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened / 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.

Sika Gulf B.S.C. (c)
Tel: +973 177 38188
Email: info@bh.sika.com
Sika Kuwait Cons. Mat. & Paints Co WLL
Tel: +965 22 282 296
Email: sika.kuwait@kw.sika.com
Web: gcc.sika.com

Sika UAE LLC
Sika MB Construction Chemicals LLC
Sika International Chemicals LLC
Tel: +971 4 439 8200
Email: info@ae.sika.com
Web: gcc.sika.com

Sika Saudi Arabia Limited
Sika Construction Chemicals for Manufacturing LLC
Riyadh / Jeddah / Dammam / Rabigh
Tel: +966 9200 22167
Email: info@sa.sika.com
Web: gcc.sika.com

Sika LLC - Oman
Sika MB LLC
Tel. +968 22 826 500
Email: info@om.sika.com
Web: gcc.sika.com