

## PRODUCT DATA SHEET

# SikaCeram<sup>®</sup>-545

(formerly MTile 545)

PREMIUM QUALITY, COLOURED, FLEXIBLE, WATER AND ABRASION RESISTANT CEMENTITIOUS TILE GROUT

### DESCRIPTION

SikaCeram<sup>®</sup>-545 is a 1-component, fine coloured highly polymer modified powder which, when mixed with water, gives a smooth, easily applied creamy paste for clean grouting of ceramic tiles and natural stone. Mix provides premium quality, flexible, water and abrasion resistant joint grout, for joints of 1 - 10 mm width.

SikaCeram<sup>®</sup>-545 is formulated using the latest grout technology including hydrophobic, easy to clean, and anti-bacterial properties.

Suitable for use in hot and tropical climatic conditions.

### USES

- For indoor and outdoor use
- For walls and floors
- For all types of ceramic tiles, glass mosaic and glass tiles
- For moisture resistive natural stone tiles

For the following areas of use:

- In residential areas, bathrooms, showers, on balconies, terraces, facades, in public and commercial areas subject to frequent or permanent wetness
- On heated screed, dry screed, precast concrete elements, plasterboards, gypsum blocks, particle boards, wooden floorboards and areas subject to extreme variations in temperature

### FEATURES

- Designed to repels dirt
- Easily to clean
- Very easy to apply
- Provides improved protection against mould and bacterial growth
- Resilient to common cleaning chemicals
- Hydrophobic, repelling water
- Superior finish and large pallet of colours

### CERTIFICATES AND TEST REPORTS

SikaCeram<sup>®</sup>-545 conforms to the requirements of EN 13888:2009 for class **CG2 WA**.

### PRODUCT INFORMATION

Composition	Blend of hydrophobic cement, fillers and organic additives
Packaging	18 kg bag
Shelf life	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. Avoid excessive compaction.
Density	~1.88 kg/l (mixed, at 25°C)

## TECHNICAL INFORMATION

Compressive strength	≥ 20 N/mm <sup>2</sup> (28 days)	(BS EN 12808-3)
Flexural-strength	≥ 5 N/mm <sup>2</sup> (28 days)	(BS EN 12808-3)

## APPLICATION INFORMATION

Consumption	<p>Consumption of SikaCeram®-545 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 ~1.9 kg/m<sup>2</sup>/mm of mixed material is required, depending from colour.</p> <p>Consumption of tile grout can be also calculated through the following formula: ((L1+ L2) x W x T x D) / (L1 x L2), where:</p> <ul style="list-style-type: none"><li>▪ L1 = Length of tile (mm) - First side</li><li>▪ L2 = Length of tile (mm) - Second side</li><li>▪ W = Joint width (mm)</li><li>▪ T = Tile thickness (mm)</li><li>▪ D = Fresh mortar density of tile grout (kg/l)</li></ul> <p>Note: Final result will be in kg/m<sup>2</sup>.</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>
Yield	18 kg bag will yield ~11.9 L
Ambient air temperature	+5°C min. / +35°C max.
Mixing ratio	4.3 litres of clean water per 18 kg bag
Pot Life	~40 min.
Application time	~40 min at 25°C Note: Application time starts when product is mixed

## 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\_545\_11\_17/v2/03\_18

## IMPORTANT CONSIDERATIONS

- Consult Sika Technical Services for hot weather applications recommendations.
- Higher temperatures reduce, lower temperatures increase the processing time.
- Cover newly grouted areas outdoors to protect against direct sunlight and strong draught
- Underfloor heating must be switched off during grouting and curing (min. 24 hours)
- A white film on the ceramic tiles which might remain visible after hardening can be removed after 2 to 3 days with a cement stain remover.
- Pre-wet joints and tiles thoroughly and wash with lots of water after cleaning.
- Joints might be affected when often and intensively being exposed to acidic cleaning agents and/or long action time of cement attacking media.
- The grout film on non-slip tiles or floor coverings with a rough surface must be thoroughly removed while still fresh (test grouting and/or test cleaning beforehand).
- In case of polished fully vitrified tiles, colour pigments can solidify in the micro-pores which might be found at the surface of the tiles. We therefore advise against an intense colour contracts between the tile and joint. Apply test area first.
- We recommend using a non-woven cloth for washing sharp-edged tiles.
- Cleaning might require a higher effort when using the colour black.
- Prevent SikaCeram®-545 from spreading to perimeter joints and adjoining areas by taking appropriate measures such as placing temporary barrier strips before grouting. Remove the strips before applying the elastic sealant. Seal joints between tiles, fitted elements and pipe culverts as well as corner joints and connection joints with the relevant Sika elastic sealant.
- We recommend to use the same batch number for the same project.
- Never add water or wet grout and/or powder to reconstitute a grout mix which has already begun to set.

- Certain types of tile may stain when in contact with coloured cement grouts, it is therefore advisable to consult the tile manufacturer and carry out trial before use.
- For natural stone tiles susceptible to staining, please contact Sika Technical Services.
- 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®-545 in a continuous operation and do not interrupt this for more than two hours in the same room or area of tiling.
- For brick, marble and stone, trial grouting is recommended to check staining effect.
- Do not use acid based cleaner to wipe down SikaCeram®-545.
- 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.

## 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

Immediately after setting the tiles, rake the joints clean to a uniform depth corresponding to the thickness of the tile. Allow 24 hours for the adhesive to set before grouting.

### 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®-545 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 ~3 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.

### APPLICATION

Note: Allow at least 24 hours between fixing tiles and grouting.

SikaCeram®-545 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.

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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- Sika Oman  
- Sika MB Construction Chemicals for Manufacturing LLC  
- Master Builders Solutions LLC

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.



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