

## PRODUCT DATA SHEET

# SikaCeram<sup>®</sup>-255 Starflex SA

### CEMENT-BASED, DEFORMABLE, TILE ADHESIVE

#### DESCRIPTION

SikaCeram<sup>®</sup>-255 Starflex SA is a cement-based, high performance, polymer containing, deformable, one-pack tile adhesive. It can be used in layers up to 10 mm. SikaCeram<sup>®</sup>-255 Starflex SA is suitable for setting all kind of tiles on both floors and walls, inside and outside for residential and commercial areas on heated floors, balconies, terraces and swimming pools.

Suitable for use in hot and tropical climatic conditions.

#### USES

- Suitable for bonding of high absorption ceramic tiles, earthenware, extruded and refined porcelain tiles
- Suitable for bonding of large format tiles used in industrial environment, wet areas, swimming pools and facades
- Suitable for bathrooms, kitchens, balconies, terraces, etc.

- Indoor and outdoor application over concrete, cement mortars, bricks and plaster
- For horizontal and vertical areas
- Suitable for moisture tolerant natural stone
- Suitable to tile directly on various Sika waterproofing products

#### CHARACTERISTICS / ADVANTAGES

- Very good adhesion
- Easy to mix and use
- Excellent workability and thixotropic consistency
- Water resistant
- Extended open time
- Single component system
- Deformability
- High slip resistance
- Smooth application

#### APPROVALS / CERTIFICATES

SikaCeram<sup>®</sup>-255 Starflex SA follows the main requirements of EN 12004 class C2 TE S1.

#### PRODUCT INFORMATION

CSI / CSC MasterFormat <sup>®</sup>	09 30 60 - Tile Adhesives, Mortars and Grouts		
Composition	Portland cement, selected aggregates, polymer		
Packaging	25 kg, 50 kg		
Shelf life	12 months from date of production		
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between 5 °C and 35 °C. Protect from direct sunlight, heat and moisture		
Appearance and colour	Grey, white		
Transverse deformation	value	Requirements for Deformable Adhesives	(EN 12004-2)
	≥ 2.5 mm	≥ 2.5 mm	

Tensile adhesion strength	w/p = 0.265	Value	Requirement EN	(EN 12004-2)
			12004, class C2	
Initial		≥ 1.5 N/mm <sup>2</sup>	≥ 1.0 N/mm <sup>2</sup>	
Water immersion		≥ 1.0 N/mm <sup>2</sup>	≥ 1.0 N/mm <sup>2</sup>	
Heat ageing		≥ 1.0 N/mm <sup>2</sup>	≥ 1.0 N/mm <sup>2</sup>	

**System structure** In normal conditions no primer is required. However for uncommon substrates please refer to Sika Technical Department.

## APPLICATION INFORMATION

<b>Mixing ratio</b>	6.5 to 6.75 L of water per 25 kg bag 13.0 to 13.5 L of water per 50 kg bag	
<b>Fresh mortar density</b>	~1.70 kg/l (25 °C)	
<b>Consumption</b>	Consumption is always dependent on the surface profile and roughness, the size of the tiles and the joints between them, as well as on the application technique (single adhesive layer on the substrate, or with an additional 'back buttering' layer).	
	<b>Size of tiles</b>	<b>Notched trowel size</b>
	Small	6 mm - square
	Medium	8 mm - square
	Large	10 mm - square
		<b>Consumption</b>
		~2.5 kg/m <sup>2</sup>
		~3.5 kg/m <sup>2</sup>
		~6 kg/m <sup>2</sup>
	These figures are theoretical and does not include for any additional material required due to surface porosity, variations in level, trowelling angel and wastage etc..	
<b>Yield</b>	~18.9 liters (25 kg bag at 0.29 % w/p ratio) ~37.9 liters (50 kg bag at 0.29 % w/p ratio)	
<b>Layer thickness</b>	Min. 2 mm Max. 5 mm on vertical areas Max. 10 mm on horizontal areas	
<b>Ambient air temperature</b>	+5 °C min. / +35 °C max.	
<b>Substrate temperature</b>	+5 °C min. / +35 °C max.	
<b>Pot Life</b>	~3 h (23 °C)	
<b>Open Time</b>	~30 min. (23 °C)	(EN 12004-2)
<b>Adjustability time</b>	~50 min. (23 °C)	
<b>Applied product ready for use</b>	Floor tiles can be grouted	After 24 - 36 h
	Wall tiles can be grouted	After 4 - 6 h
	Swimming pools	After 21 d
	Full traffic / use	After 14 d

## 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

- Protect freshly applied material from rain, wind, etc. Make a test area prior to carrying out any work with natural stones.
- White version of tile adhesive is recommended for translucent natural stone tiles.
- Make a test area prior to carrying out any work with

natural stones.

- It is usually not necessary to pre-dampen the tiles.
- For gypsum board substrate, primer need to be applied, please contact Sika Technical Department.
- SikaCeram®-255 Starflex SA shall not be applied on the following cases:
  - On metal surfaces and wood
  - On old outdoor ceramic tiles
  - For any situations or applications not explicitly described in this Product Data Sheet.

## 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 QUALITY / PRE-TREATMENT

- For applications in hot climates / environments and / 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).
- Substrates must be properly cured, structurally sound, free of any loose or friable particles, clean, dry and free of any contaminants such as dust, dirt, oil, grease, cement laitance or efflorescence.
- Depending on the substrate condition and contaminants to be removed from the surface, perform adequate preparation techniques, such as water-jet washing or blast cleaning, in order to remove all traces of any materials that could reduce the product's adhesion to the substrate.
- Small surface defects and variations in level, profile, or around exposed aggregates for example, can be prefilled and levelled with an additional layer of SikaCeram®-255 Starflex SA, to a maximum thickness of 10 mm, applied at least 24 h before laying the ceramic tiling. For larger and thicker areas of surface reprofiling and making good, appropriate mortars from the SikaRep®, Sika MonoTop® or Sikafloor® Level range should be used.
- When laying tiles on non-absorbent or substrates with limited absorbency, such as existing ceramic tiles, painted surfaces etc., check to confirm that these surfaces are all firmly and securely bonded and stable, then use suitable degreasing/descaling
- For tiling in frequently damp or wet rooms, a suitable Sika® waterproofing product / system should be applied before the tiling

### MIXING

Mix with the necessary, above mentioned, amount of water, using an electric blender with a suitable mixing spiral at low speed, in a clean bucket, and up to obtain a smooth paste free of lumps. Use a blender at 500 rpm maximum; do not mix at faster rate because of mechanical strength decay of the cured product. After blending, leave the product to stand and 'mature' for 5 minutes in the mixing container and then briefly stir the mix prior to application. The obtained mix results very creamy, easily spreadable and thixotropic.

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## APPLICATION

SikaCeram®-255 Starflex SA is applied using notched trowel. The amount of product should be enough to ensure complete wetting of the tiles' rear. Tiling has to be carried out on fresh glue, exerting an adequate pressure to ensure contact with the adhesive, and thus the perfect bonding. In case a surface film is formed on the adhesive, it is necessary to wipe the trowel on the adhesive layer previously applied. Avoid wetting with water the adhesive already applied, it damages the adhesive.

### CLEANING OF EQUIPMENT

Clean all tools and application equipment with 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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ISO 9001: Sika UAE LLC,  
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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.

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