

PRODUCT DATA SHEET

SikaCeram[®]-255 StarFlex LD BH

HIGH PERFORMANCE, CEMENTITIOUS, WATER RESISTANT, DEFORMABLE TILE ADHESIVE

DESCRIPTION

SikaCeram[®]-255 StarFlex LD BH is a cement-based, high performance, polymer containing, deformable, low dust, water resistant, one-pack tile adhesive. SikaCeram[®]-255 StarFlex LD BH is suitable for setting all kinds 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 size tiles used in industrial environment, wet areas, swimming pools, etc.
- 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
- Deformable
- No vertical slipping
- Low dust emission
- Smooth application

APPROVALS / CERTIFICATES

SikaCeram[®]-255 StarFlex LD BH follows the main requirements of EN 12004-1, class C2 TE S1.

PRODUCT INFORMATION

Composition	Portland cement, selected aggregates and polymers
Packaging	25 kg bag
Appearance / Colour	Grey powder
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
Maximum grain size	~0.6 mm

TECHNICAL INFORMATION

Tensile adhesion strength	w/p = 0.29	Value	Requirements EN 12004-1, class C2	(EN 12004-2)
	Initial	≥ 1.6 N/mm ²	≥ 1.0 N/mm ²	
	After water immersion	≥ 1.4 N/mm ²	≥ 1.0 N/mm ²	
	After heat ageing	≥ 1.3 N/mm ²	≥ 1.0 N/mm ²	
Transverse deformation	w/p=0.29	Value	Requirement EN 12004-1, class S1	(EN 12004-2)
	Transverse deformation	≥ 2.5 mm	≥ 2.5 mm	
Slip resistance	w/p=0.29	Value	Requirement EN 12004-1, class T	(EN 12004-2)
	Slip	≤ 0.5 mm	≤ 0.5 mm	

SYSTEMS

System structure	In normal conditions no primer is required. However for uncommon substrates please contact Sika Technical Department.
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APPLICATION INFORMATION

Mixing ratio	7.0 to 7.5 L of water per 25 kg bag			
Fresh mortar density	~1.65 kg/l (25 °C)			
Consumption	The consumption depends on the surface profile and roughness of the substrate and on the size of the tiles and the placing technique (simple placing "floating" or back to back "buttering-floating"). As a guide: For 1 mm thickness over 1 m ² area approximately 1.7 kg of material. One 25 kg bag will cover approximately 6.3 - 9.5 m ² at 3 - 2 mm thickness.			
Layer thickness	Min. 2 mm Max. 5 mm on vertical areas Max. 15 mm on horizontal areas			
Ambient air temperature	+5 °C min. / +35 °C max.			
Substrate temperature	+5 °C min. / +35 °C max.			
Pot Life	~5 h (23 °C)			
Open Time	w/p=0.29 (+23 °C)	Value	Requirement EN 12004-1, class E	(EN 12004-2)
	Open time	≥ 30 minutes	≥ 20 minutes	
Adjustability time	~50 min. (23 °C)			
Applied product ready for use	Floor tiles can be grouted	After 24 - 36 h		
	Wall tiles can be grouted	After 4 - 6 h		
	Full traffic / use	After 14 d After 21 d - for swimming pools		

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.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets before using any products. For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- 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 all contaminants to be removed from the surface, perform adequate preparation techniques, such as water-jet washing or blastcleaning, in order to remove all traces of any materials that could reduce the product's adhesion to the substrate.
- Any 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 LD BH, to a maximum thickness of 15 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. Cracks in substrates must be identified and sealed appropriately e.g. with Sikadur® epoxy resins.
- 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 products to thoroughly and completely clean the surface.
- 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).
- For tiling in frequently damp or wet rooms, a suitable Sika® waterproofing product / system should be applied before the tiling.

MIXING

Mix 25 kg bag 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 result should be very creamy, easily spreadable and thixotropic.

APPLICATION

SikaCeram®-255 StarFlex LD BH 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.

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.
- It is usually not necessary to pre-dampen the tiles.
- Do not wet already applied adhesive.

SikaCeram®-255 StarFlex LD BH 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.

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 OHSAS
18001.

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