

PRODUCT DATA SHEET

SikaCeram[®]-295 StarS2

HIGHLY DEFORMABLE, MULTI-FLOW, LOW DUST TILE ADHESIVE
WITH LIGHTWEIGHT FILLERS FOR RENOVATION



DESCRIPTION

SikaCeram[®]-295 StarS2 is designed for renovation inside and outside. It is a highly deformable, low dust and high coverage tile adhesive containing lightweight fillers. It is used to realize deformable adhesive layers up to 10 mm thick and acts as a decoupling product. SikaCeram[®]-295 StarS2 is suitable for setting grès porcelain, stoneware tiles and natural stone on façade, balconies, terraces, heating floors, swimming pools, industrial and heavy traffic floorings, construction boards and on "green screeds" up to 5 days after installation.

C2 TE S2 classified according to EN 12004, in Thin bed consistency.

C2 E S2 classified according to EN 12004, in Flow bed consistency.

USES

SikaCeram[®]-295 StarS2 is suitable for bonding the following types of tiles:

- all kinds of ceramic tiles on substrates where stress can occur
- coarse-ceramic
- earthenware tiles
- thin porcelain stoneware slabs and mosaic
- marble and natural stones not sensitive to discoloration

SikaCeram[®]-295 StarS2 can be used on walls and floors, indoors and outdoors including:

- swimming pools, industrial and heavy traffic floors, façades
- on heated floors (water and electric system)
- on insulation and plasterboards boards
- indoor over-tiling applications on old tiles, primed with Sika[®] Primer-21 W
- with the thin-bed method, on "green screeds" (unheated) up to 5 days after installation and in vapour baths

CHARACTERISTICS / ADVANTAGES

- Multi-Flow: From Thin-bed to Flow-bed consistency
- Highly deformable
- High resistance to vertical slipping
- Extended open time
- High tensile strength
- Relieves stress, act as a decoupling layer
- Reinforced with fibres
- Lightweight fillers

SUSTAINABILITY

VOC emission classification according to Emission EC1 plus (Licence for use of EMICODE n. 7235/24.02.97)

APPROVALS / CERTIFICATES

CE Marking and Declaration of Performance according to EN 12004-1 - Adhesives for ceramic tiles

PRODUCT INFORMATION

Composition	Portland cement, selected aggregates, water retention additives, re-dispersible polymer, fibres
Packaging	25 kg bag
Appearance / Colour	Grey powder
Shelf life	12 months from date of production.
Storage conditions	Store in original unopened, sealed and undamaged packaging in dry conditions, at temperatures between +5°C and +35°C.
Product Declaration	C2TE S2 (EN 12004)

TECHNICAL INFORMATION

Tensile Adhesion Strength	Thin-Bed	Flow-Bed	(EN 1348)	
	Initial	≥ 2,0 N/mm ²		≥ 2,0 N/mm ²
	Water Immersion	≥ 1,0 N/mm ²		≥ 1,0 N/mm ²
	Heat Ageing	≥ 2,0 N/mm ²		≥ 2,0 N/mm ²
	Freeze-Thaw Cycles	≥ 1,0 N/mm ²		≥ 1,0 N/mm ²
Transverse deformation	Thin-Bed	Flow-Bed	(EN12002)	
	≥ 5 mm	≥ 5 mm		
Slip Resistance	≤ 0,5 mm		(EN1308)	
	All data are collected from test reports released by laboratory Kiwa TBU GmbH, Notified Body 0799			

SYSTEMS

System Structure	For the following substrates, a primer shall be used:	
	Substrate	Primer
	Absorbent substrate (cementitious screed, gypsum, plaster or anhydrite screed)	Sika® Primer-11 W Sikafloor®-01 Primer (1:3)
	Non or partly absorbent substrate (old tile, PVC, linoleum and old vinyl floors)	Sika® Primer-21 W Sikafloor®-01 Primer Sikafloor®-02 Primer
	Application and consumption details of the primer are given in the relevant Product Data Sheet.	

APPLICATION INFORMATION

Mixing Ratio	Thin-bed	~7,0 litres of water per 25 kg bag 28%± 1 %	
	Flow-bed	~9,0 litres of water per 25 kg bag 36 % ± 1 %	
Consumption	Consumption is always depending on the substrate surface profile and roughness, as well as on the application technique (single spreading/floating method or double spreading/buttering method). As a guide:		
	Size of tiles	Notched Trowel size	Consumption
	Small	6 mm	~ 1,7 kg/m ²
	Medium	8 mm	~ 2,2 kg/m ²
	Large	10 mm	~ 2,7 kg/m ²
Layer Thickness	10 mm max.		

Ambient Air Temperature	+5 °C min. / +35 °C max.	
Substrate Temperature	+5 °C min. / +35 °C max.	
Pot Life	~60 min at +20 °C	
Open Time	≥ 0,5 N/mm ² after 30 min.	
Applied Product Ready for Use	Use	Waiting time
	Grouting inside, foot traffic	~24 h
	Grouting outside	~48 h

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- Substrate must be properly cured, structurally sound, clean, dry and free of all contaminants such as dust, dirt, oil, grease, cement laitance, efflorescence, previous coatings and other surface treatments or contaminants.
- Depending on the contaminants to remove, perform adequate preparation techniques, such as water-jet washing or sandblasting, in order to remove all traces of previous coatings which could reduce the products adhesion on the substrate.
- Any small gradients or bumps or gravel can be levelled and filled with a layer of SikaCeram®-295 StarS2, at a maximum thickness of 10 mm, applied at least 24 h before laying the ceramic covering. For higher thickness, mortars of Sika MonoTop® or Sika-floor® Level range shall be used. Cracked substrates must be sealed with epoxy resins.
- When laying on unabsorbing or fairly absorbing substrates, such as old ceramics, stones, paints, check everything is safely adhered and stable and use degreasing / descaling products to properly clean the surface.
- For applications under hot climates on absorbent substrates, adequately dampen the surface prior to application. However, avoid stagnant water on the surface. The surface shall not be moist to touch and not be dark-mat (wet surface appearance: Saturated, with surface dry).
- To avoid deformation on "green screeds", tiling should be finished not later than 5 days after installation of the screed.
- If used in moist or wet room, an additional Sika waterproofing product must be applied prior tiling.
- For laying mosaic on the floor of a shower, use an epoxy mortar like SikaCeram® StarGrout.

MIXING

Pour the recommended water in a suitable, clean mixing container. While stirring slowly, add the powder to the water and mix thoroughly using a low speed (~500 rpm) electric mixer until a homogeneous and lump free mix is achieved.

After blending, leave the product maturing and then briefly stir it prior the application. The obtained mix has a very creamy consistency and is easily spreadable.

Note: Do not mix more material than what can be used within 60 minutes

APPLICATION

- SikaCeram®-295 StarS2 is applied using a suitable notched trowel.
- The amount of product shall be enough to ensure complete wetting of the tiles' rear.
- Tiling has to be carried out on fresh adhesive, exerting an adequate pressure to ensure contact with the adhesive, and thus a perfect bonding. In case a surface film is formed on the adhesive, remove the adhesive layer with the flat part of the spatula and re-apply a fresh layer of adhesive.
- Avoid application under direct sun exposure and/or strong wind.
- The product can be used to lay absorbing and non-absorbing tiles indoor without any size or support limits.
- Outdoors preferably lay non-absorbing tiles not larger than 10000 cm² (e.g. 100x100 cm) for floors, and 7000 cm² (e.g. 80x80 cm) for walls without support of mechanical fixing. These limits are valid for cementitious, non-heating substrates.
- To lay tiles larger than 900 cm² (e.g. 30x30 cm), use the double-spreading (floating-buttering) method of application.

CLEANING OF EQUIPMENT

Removal of fresh remnants from tools and application equipment can be carried out using water immediately after use. Hardened / cured material can only be mechanically removed.

IMPORTANT CONSIDERATIONS

- Gypsum plaster substrates must have a minimum thickness of 10 mm and a maximum moisture content of 0,5 %.
 - If a waterproofing layer under tiles is required, cement-based and acrylic based waterproofing layers may be used.
 - Protect freshly applied material from freezing conditions, rain and any other environmental influences
 - Apply a test area prior to carrying out any work with natural stone tiles.
 - It is usually not necessary to pre-dampen the tiles.
- SikaCeram®-295 StarS2 shall not be applied in the following cases:
- On metal surfaces and wood
 - To realize coats thicker than 30 mm
 - Outdoors on old ceramic tiles
 - For laying and grouting glass mosaic in steam-baths

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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.

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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Product Data Sheet

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