

PRODUCT DATA SHEET

SikaCeram[®]-290 StarLight

MULTI-FLOW, HIGH COVERAGE, DEFORMABLE, LOW DUST TILE ADHESIVE WITH LIGHTWEIGHT FILLERS

DESCRIPTION

SikaCeram[®]-290 StarLight is a multi-flow, deformable, high-coverage (up to 80 % extra coverage compared to normal tile adhesive), low dust, one-pack tile adhesive with lightweight fillers. It contains recycled raw materials which reduces carbon footprint.

It can be used in layers up to 15 mm thick and is suitable for tiling grès porcelain and natural stone on facade, heating floors, swimming pools and industrial floorings. EN 12004 class C2 TE S1.

USES

SikaCeram[®]-290 StarLight is suitable for bonding the following types of tiles:

- All kinds of ceramic tiles, including grès porcelain in large size and in thin slabs
- Marble and other natural stone tiles, provided they are not sensitive to water

SikaCeram[®]-290 StarLight can be used indoors and outdoors, on floors and walls on the following substrate surfaces:

- Gypsum and cement based substrates
- For overlaying existing sound ceramic tiles or stones, paints indoors
- For overlaying existing sound PVC sheet, linoleum and vinyl tiled floors indoors

SikaCeram[®]-290 StarLight is suitable for applications demanding high performance, such as:

- Swimming pools
- Heated floors (water and electric systems)
- Industrial and heavy traffic floors
- Facades
- Spot-gluing insulating panels made of polystyrene, polyurethane foam, rock or glass wool

CHARACTERISTICS / ADVANTAGES

- Multi-Flow: From Thin-bed to Flow-bed consistency.
- High coverage (up to 80 % extra compared to normal tile adhesive)
- Low dust emission
- Recycled raw materials
- Deformability
- No vertical slip
- Extended open time

ENVIRONMENTAL INFORMATION

- VOC emission classification according to Emission EC1 plus
- Class A+ according to French Regulation on VOC emissions

APPROVALS / STANDARDS

- Improved deformable cementitious adhesive with reduced slip and extended open time classified C2 TE S1 according to EN 12004:2007, Declaration of Performance 90767892, assessed by notified laboratory 0799, and provided with the CE marking.
- Licence for use of EMICODE n. 5296/24.02.97

PRODUCT INFORMATION

Chemical Base	Portland cement, selected aggregates, water retention additives, re-dispersible polymer
Packaging	15 kg bag
Appearance / Colour	Grey powder
Shelf Life	12 months from date of production.
Storage Conditions	Undamaged original sealed packaging, in dry, cool conditions.
Maximum Grain Size	D _{max} : 0,3 mm

TECHNICAL INFORMATION

Tensile Adhesion Strength	Initial	≥ 1,0 N/mm ²	(EN 1348)
	Water immersion	≥ 1,0 N/mm ²	
	Heat ageing	≥ 1,0 N/mm ²	
	Freeze-thaw cycles	≥ 1,0 N/mm ²	
Transverse deformation		≥ 2,5 mm	(EN 12002)

All data collected from test reports released by laboratory Kiwa TBU GmbH, Notified Body 0799.

SYSTEM INFORMATION

System Structure

For the following substrates, a primer must be used:

Substrate	Primer
Absorbent substrate (cementitious screed, gypsum plaster or anhydrite screed)	Sika® Primer-11 W Sikafloor®-01 Primer (1:3) Sikafloor®-03 Primer
Non and low absorbent substrate (existing ceramic tiles, linoleum and existing vinyl tiled floors)	Sika® Primer-21 W Sikafloor®-01 Primer Sikafloor®-02 Primer

Application and consumption details of the primers are given in their respective Product Data Sheets.

APPLICATION INFORMATION

Mixing Ratio	Thin-bed	~8,5 litres of water per 15 kg bag (57 % ±1 %)
	Flow-bed	~10 litres of water per 15 kg bag (67 % ±1 %)

Fresh Mortar Density ~1,2 kg/l (thin-bed and flow-bed)

Consumption

Consumption is always dependent on the substrate 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 'buttering' layer on the back of the tiles as recommended for tiles larger than 30 x 30 cm). As a guide:

Size of tiles	Notched Trowel size	Consumption
Small	6 mm	~1,3 kg/m ²
Medium	8 mm	~1,6 kg/m ²
Large	10 mm	~2,0 kg/m ²

Or use our online tile adhesives consumption calculator at <http://sikaceram.com/nz/consumption-calculator/adhesive>

Layer Thickness 15 mm max.

Slip Resistance ≤ 0,5 mm (EN 1308)

Ambient Air Temperature	+5 °C min. / +35 °C max.	
Substrate Temperature	+5 °C min. / +35 °C max.	
Maturing Time	No maturing time needed	
Pot Life	~ 6 hours	
Open Time	≥ 0,5 N/mm ² after 30 min.	(EN 1346)
Adjustability Time	~40 min	
Curing Time	16–48 hours	
Curing Treatment	Protect from adverse weather conditions, such as extremely high or low (freezing) temperatures, rain, direct exposure to sun, for at least 12–24 hours from application.	
Applied Product Ready for Use	Use	Waiting Time
	Grouting on floors / walkability	~16 h indoors ~48 h outdoors
	Grouting on walls	~6 hours
	Full traffic	~14 days
	Water immersion	~21 days
	Values determined at laboratory conditions: 23 °C ± 2 °C, R.H. 50 % ± 5 %. Higher temperatures will reduce the indicated waiting time, lower temperatures increase them.	

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 and 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®-290 StarLight, to a maximum thickness of 15 mm, applied at least 24 h before laying the ceramic tiling is laid. For larger and thicker areas of surface reprofiling and making good, appropriate mortars from the 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, then a suitable Sika® waterproofing product / system should be applied before the tiling.

MIXING

Pour the recommended amount of water into a suitable, clean mixing container. Whilst stirring slowly, slowly add the SikaCeram®-290 StarLight powder to the water and then mix thoroughly using a low speed (~500 rpm) electric mixer until a completely homogeneous and lump-free mix is achieved.

After mixing, leave the material to stand and 'mature' for a few minutes, and then briefly stir again immediately prior to application. The resulting mix has a very creamy consistency and is easy to apply and spread.

APPLICATION

- SikaCeram®-290 StarLight is applied using a notched trowel.
- Apply sufficient product to ensure complete 'wetting' of the backs of the tiles.
- Tiling must to be carried out on freshly applied adhesive, applying adequate pressure to ensure complete and uniform contact with the adhesive and thus optimum bond. If a film is seen to form on the surface, the adhesive has been left for too long; should this happen, then immediately remove the adhesive layer with the trowels, discard this material and apply a fresh layer of SikaCeram®-290 StarLight adhesive.
- Avoid application in direct sunlight and/or strong wind / draughts.
- SikaCeram®-290 StarLight is specifically designed to be ideal for laying non-absorbent tiles indoor without any size or support limits. Outdoor is preferable to lay unabsorbing tiles not larger than 10 000 cm² (e.g.

100×100 cm) for floors, and 7000 cm² (e.g. 80×80 cm) for walls without support of mechanical fixing. These limits are valid for cementitious, non-heating substrates.

- To lay any tiles larger than 900 cm² (e.g. 30×30 cm), the double-layer 'buttering' technique is always recommended.

CLEANING OF TOOLS

Thoroughly clean all tools and equipment with clean water before the product has set, preferably immediately after use. Once hardened the product can only be removed by mechanical means.

LIMITATIONS

- Gypsum plaster substrates must have a maximum moisture content of 0,5 %.
- If a waterproofing layer is required under the tiles, then cement and/or acrylic-based systems are suitable for use under SikaCeram®-290 StarLight. Please refer to the respective Sika Product Data Sheets for more information.
- For any natural stones tiles always carry out a small test application first.

SikaCeram®-290 StarLight must not be applied in the following situations:

- On metal or wood surfaces
- On existing ceramic tiles outdoors
- For any situations or applications not explicitly described in this Product Data Sheet

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.

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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 Safety Data Sheet (SDS) 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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