

SikaCeram[®]-255 StarFlex

Highly flexible powder adhesive for fixing of medium-large sized ceramic tiles, C2TE classified according to EN 12004 and S1 classified according to EN 12002.

Positioning Description SikaCeram-255 StarFlex is a one-pack premixed adhesive consisting of high quality cements, selected silica/quartz sands and specific additives. It achieves highly flexible adhesive layers up to 15 mm thick. It is suitable for grès porcelain and natural stone on façades, heated floors, swimming pools and industrial flooring areas.

- Uses**
- Laying ceramic tiles of all types, grès porcelain, even in large sizes
 - Laying grès porcelain slabs, low thickness featured
 - Laying marble and natural stone, as long as they are not affected by water
 - Laying on heated floor slabs or electric heated screeds
 - Indoor and outdoor applications
 - Suitable for over-tiling indoor applications on old tiles, without primer
 - Suitable for applications where high performance is required, i.e. pools, industrial flooring areas, façades
 - On walls and floors
 - Spot-gluing insulating panels made of polystyrene, polyurethane foam, rock or glass wool

- Advantages**
- No vertical slipping
 - High flexibility
 - Extended open time
 - Frost proof
 - One-pack
 - Can be applied up to 15 mm thickness

Product Data

Colour: Grey and white.
Packaging: 25 kg bags.
Storage & Shelf Life: 12 months in the original packaging, in a dry environment.

Technical Data

Water ratio: 7 litres approx. of clean water per bag (29% ± 1%).
Pot life: 6 hours approx. for one bag*.
Curing time: 10 minutes, approx.
Open time: 30 minutes, approx.* (as requested by EN 12004) (EN 1346)
Adjustability time: 50 minutes, approx.*
Hardening time: Trafficable: after 24-36 hours approx.
 Floor tiles: can be grouted after 24-36 hours * approx.
 Wall tiles: can be grouted after 4-6 hours * approx.
 Surface can be used after 14 days * approx.
 * Values achieved at room conditions: 23°C – R.H. 50%. Higher temperatures reduce the indicated times, lower temperatures increase them.

Compressive strength: 14 MPa (EN 196)

Test Method:

Initial tensile bond	Tensile bond after heat	Tensile bond after water immersion	Vertical slipping	Bond after freeze/thaw cycles	Transversal deformation
EN 1348	EN 1348	EN 1348	EN 1308	EN 1348	EN 12002
2 MPa	1.8 MPa	1.3 MPa	0 mm	1.4 MPa	3 mm
≥ 1 MPa	≥ 1 MPa	≥ 1 MPa	≤ 0.5 mm	≥ 1 MPa	≥ 2.5 mm

Requirement of EN 12004:

Consumption: The consumption depends on the kind and size of the tiles, roughness of the substrate and size of the trowel. We recommend using of the following trowel sizes on flat substrates:

Trowel size

- 8 mm
- 10 mm
- 15 mm

Consumption

- 4 kg/m² approx.
- 5 kg/m² approx.
- 7 kg/m² approx.



Application Conditions

Surface Preparation

SikaCeram-255 StarFlex is applied directly on plasters and cementitious substrates, cement-lime mortars, concrete, plasterboard, helicopter finished concrete and old ceramic floors. Sika Primer-11 W must first be applied on gypsum based or anhydrite substrates. Apply Sika Primer-21 W on PVC, linoleum and old vinyl floors. The substrate must be perfectly flat, rigid, tight and free from loose particles, and cured. Any small uneven areas can be levelled and filled with a layer of SikaCeram-255 StarFlex (at a maximum thickness of 5 mm), applied at least 24 hours before laying the ceramic coating. For greater thicknesses, the Sika MonoTop or Sika Level range of mortars should be used. The substrate must also be clean and free from dust, grease, oils and wax.

Mixing

Mix a 25 kg bag with the recommended amount of water in a clean bucket, using an electric mixer with a suitable mixing spiral at low speed until a smooth, lump-free paste is achieved.

Use a max. 500 rpm mixer; do not mix at a faster rate as this will reduce the mechanical strength of the cured product. After mixing, leave the product to sit for 5-10 min., then briefly stir the mix prior to application. The resulting mix should be very creamy, easily spreadable, and highly thixotropic.

Application

SikaCeram-255 StarFlex is applied using a 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. If a surface film has formed on the adhesive, it is necessary to wipe the trowel over the adhesive layer previously applied.

Avoid wetting with water any adhesive already applied

SikaCeram-255 StarFlex is used for fixing absorbent tiles up to a maximum size of 10,000 cm² (e.g. 60 x 120 cm) for indoor floors, up to 3,600 cm² (e.g. 60 x 60 cm) for indoor walls and outdoor paving, and 2,100 cm² (e.g. 30 x 60 or 45 x 45 cm) for façades without any mechanical clamps.

These limits are valid for cementitious, non-heated substrates. For any other kind of substrate, please contact the Sika technical department.

For laying tiles equal or greater in size than 900 cm² (e.g. 30 x 30 cm) the double-spreading (buttering) technique of adhesive application is always recommended.

Cleaning

Clean tools and equipment immediately after use with water. Cured product can only be removed mechanically.

Notes on Application / Limitations

SikaCeram-255 StarFlex must not be applied in the following situations:

- On metal surfaces and wood
- To achieve coats thicker than 15 mm
- On old ceramics outdoors
- For laying of ceramic tiles larger than 2100 cm² without mechanical fastening
- At temperatures lower than + 5°C or higher than +35°C

Notes

All technical data stated in this Product Data Sheet are based on 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.

Health & Safety Information

Protective Measures

- To avoid allergic reactions, we recommend the use of protective gloves. Change soiled work clothes and wash hands before breaks and after finishing work.
- Local regulations as well as health and safety advice on packaging labels must be observed.
- For further information refer to the Sika Material Safety Data Sheet which is available on www.sika.co.nz, or on request.
- If in doubt always follow the directions given on the pack or label.

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.



Sika (NZ) Limited
PO Box 19192, Auckland 1746, NZ.
0800 745 269 | www.sika.co.nz

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