BUILDING TRUST

PRODUCT DATA SHEET

SikaCeram®-255 StarFlex LD White

White Cementitious Deformable Low Dust Floor And Wall Tile Adhesive

DESCRIPTION

SikaCeram®-255 StarFlex LD White is a white polymer modified cementitious powder, floor and wall tile adhesive. It is normal setting, deformable, frost resistant with reduced slip and extended open time. For small, medium, large sized ceramic tiles in residential, industrial, commercial and wet and dry environments. Suitable for bonding all types of ceramic, marble, natural stone and mosaic tiles to all types of absorbent / non – absorbent construction material substrates. Layer thickness ≤15,0 mm. Indoor and outdoor use. EN 12004: Classification - C2 TE S1. Product can also be used for spot-fixing indoor insulating panels.

USES

Bonding the following types of tiles:
- All kinds of medium, large-sized tiles
- Grès porcelain
- Ceramic
- Earthenware
- Mosaic
- Glazed
- Marble and other natural stones
- Porcelain
- Stoneware
- Terrazzo
- Unglazed

Bonding tiles for the following applications:
- Swimming pools
- Heated floors (Water and electric systems)
- Industrial and heavily trafficked floors
- Facades
- Balconies and terraces
- Overlaying existing indoor sound PVC sheet, linoleum and vinyl tiled floors

FEATURES

- Deformable
- No vertical slip, high slump resistance and grab
- Extended open time
- Low dust emission
- Frost resistant
- Smooth application
- White
- Typical bonding substrates: Anhydrite, cementitious, ceramic, gypsum, painted, PVC sheet, linoleum, vinyl tile/sheet, stone

CERTIFICATES AND TEST REPORTS

- CE Marking and Declaration of Performance to EN 12004 – Adhesives for Tiles

PRODUCT INFORMATION

Composition	Portland cement, selected aggregates, water retention additives, re-dis-

	persible polymer
Packaging	25 kg bag
Appearance and colour	White powder.
Shelf life	12 months from date of production.
Storage conditions	Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.
Product declaration	EN 12004: C2 TE S1
Maximum grain size	Dmax: 0,63 mm

TECHNICAL INFORMATION

Tensile adhesion strength (EN 1348)

Initial	≥ 1,5 N/mm²
Water immersion	≥ 1,0 N/mm²
Heat ageing	≥ 1,0 N/mm²
Freeze-Thaw cycles	≥ 1,0 N/mm²

Slip resistance	≤ 0,5 mm	(EN 1308)
Transverse deformation	≥ 2,5 mm	(EN 12002)

APPLICATION INFORMATION

Mixing ratio

7,25 litres of water per 25 kg bag. (29 % ± 1 %)

Consumption

Consumption is dependent on the substrate, surface profile, roughness, size of the tiles, the joints between them and application technique.
As a guide for a single adhesive layer:

Size of tiles	Notched trowel size	Consumption
Small	6 mm	~2,5 kg/m²
Medium	8 mm	~3,5 kg/m²
Large	10 mm	~6 kg/m²

Layer thickness	15 mm max.
Ambient air temperature	+5 °C min. / +35 °C max.
Substrate temperature	+5 °C min. / +35 °C max.
Maturing time	~3 minutes
Pot Life	~6 hours
Open Time	≥ 0,5 N/mm² after 30 minutes (EN 1346)
Curing treatment	Protect from negative effecting weather conditions, such as extremely high or freezing temperatures, rain, direct exposure to sun, for 12–24 hours from application, at least.

Applied product ready for use

Use	Waiting time
Grouting - floors including foot traffic	24–36 hours
Grouting - walls	4–6 hours
Full traffic	~14 days
Water immersion	~21 days

Values determined in laboratory conditions: 23 °C ± 2 °C, R.H. 50 % ± 5 %. Higher temperatures will reduce the indicated waiting time, lower temperatures increase them.

Adjustability time	~50 minutes

Fresh mortar density	~1,6 kg/l.

SYSTEM INFORMATION

System structure

For the following substrates, a primer shall be used:

Substrate	Primer
Calcium sulphate substrates (gypsum, plaster or anhydrite screed)	Sika® Primer-11 W+ (1:1) Sikafloor®-01 Primer (1:1) Sikafloor®-03 Primer
Non and low absorbent substrate (existing ceramic tiles, linoleum, existing vinyl tiled floors)	Sika® Primer-21 W Sikafloor®-02 Primer
Tile Adhesive	SikaCeram®-255 StarFlex LD White

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

- Gypsum plaster and anhydrite screed substrates must have a maximum moisture content of 0,5 %.
- For application and consumption details of other system products, refer to the respective Product Data Sheets
- For natural stone tiles always carry out a preliminary test application first.
- Avoid application in direct sunlight and/or strong wind / draughts.
- Do not apply on metal or wood surfaces
- Do not apply on existing ceramic tiles outdoors.
- Do not add anything to the product that is not specified in this Product Data Sheet.
- Do not use for any applications not explicitly described in this Product Data Sheet.
- Do not use on marble or natural stone tiles if they are sensitive to water.

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

Cementitious substrates must be sufficiently cured and dried (2–6 weeks). All substrates must be structurally sound, able to support the weight of the new tiling and provide a stable and securely fixed background. Surfaces shall be clean, dry, free of any loose or friable particles, contaminants such as dust, dirt, oil, wax, polish grease, cement laitance or efflorescence.
Depending on the substrate condition and contaminants to be removed from the surface, use adequate preparation techniques to remove all traces of any materials that could reduce the product's adhesion to the substrate. Smooth surfaces should be roughened lightly to improve adhesion. To confirm adequate surface preparation and adhesion, carry out a small trial before full application.
Any small surface defects and variations in level, profile, or around exposed aggregates can be prefilled and levelled with an additional layer of SikaCeram®-255 StarFlex LD White to a maximum thickness of 8 mm, applied at least 24 hours before full adhesive application. For larger and thicker areas of surface reprofiling and making good, use appropriate mortars from the Sika MonoTop® or Sikafloor® Level range.
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 these surfaces are all stable, firmly and securely bonded. Then use suitable degreasing/descaling products to thoroughly and completely clean the surface.
For applications in hot climates / environments, or on absorbent substrates, thoroughly pre-dampen the surface immediately prior to product application. Avoid any ponding / standing water on the surface. Surface must not be damp to touch.
For tiling in constantly damp or wet rooms, a suitable Sika® waterproofing product / systems should be applied to the substrate before tiling.

MIXING

Pour the recommended amount of clean cold water into a suitable, clean mixing container.
Slowly add SikaCeram®-255 StarFlex LD White powder to the water while mixing using a low speed (~500 rpm) drill mixer. Then mix thoroughly until the material is fully mixed and lump free. Avoid entraining air into the mix by over mixing.
Allow the mixed product to 'mature' for 2–3 minutes before remixing for 30 seconds.
The finished mix should have a creamy consistency, uniformly coloured and is easy to apply and spread.

APPLICATION

SikaCeram®-255 StarFlex LD White is applied using a suitable notched trowel.
Apply sufficient adhesive to the prepared fixing surface with the appropriate trowel and comb to the required bed thickness. Apply sufficient product to ensure adequate 'wetting' of the backs of the tiles. Coverage on the back of the tiles should be 100 %.
Tiling must to be carried out on freshly applied adhesive, exerting adequate pressure to ensure complete and uniform contact with the adhesive achieve optimum adhesion.
If a skin forms on the surface of the adhesive, immediately remove the adhesive layer with the trowel, discard material and apply a fresh layer of SikaCeram®-255 StarFlex LD White adhesive.
Adjust tiles if required.
Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.
After the required waiting time apply the appropriate grout into the tile joints.
SikaCeram®-255 StarFlex LD White is suitable for laying absorbent and non-absorbent tiles indoors without any size or support limits.
On cementitious substrates, SikaCeram®-255 StarFlex LD White is ideal for laying non-absorbent tiles outdoors up to 10000 cm^2 (e.g. 60 × 120 cm). On non-heated floors and up to 7000 cm^2 (e.g. 80 × 80 cm) on walls.
Large tiles > 900 cm^2 (e.g. 30 × 30 cm), the double-spreading (buttering) technique is always recommended.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water after use. Hardened material can only be removed mechanically.

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.

Sika Near East s.a.l.
Sin El Fil-Jisr el Bacha
P.O. Box 55163 - Beirut · Lebanon
Phone: +961 1 510270
Fax: +961 1 510271
bn.sika.com

LEGAL NOTES

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