

PRODUCT DATA SHEET

SikaCeram[®]-243 UltraFlex

HIGH PERFORMANCE, CEMENT BASED TILE ADHESIVE, C2TES1 CLASSIFIED ACCORDING TO EN 12004-1



DESCRIPTION

SikaCeram[®]-243 UltraFlex is a high performance, one-pack premixed, white, deformable, non-slipping, with extended open time, cementitious tile adhesive with high polymer content containing selected aggregates, special additives and admixtures.

SikaCeram[®]-243 UltraFlex can be used for tile bonding at a thickness layer up to 15mm, for external and internal applications, on horizontal and vertical surfaces.

USES

SikaCeram[®]-243 UltraFlex is suitable for bonding:

- Monocottura, bicottura ceramic tiles
- Large sized tiles
- Mosaic tiles
- Clinker, cotto tiles
- Artificial granite tiles (including grès porcelanato tiles)
- Marble and natural stones (without any sensitivity against water)

SikaCeram[®]-243 UltraFlex can be used on different substrates including:

- Concrete and mortar
- Flexible 1-component cementitious products (e.g. Sikalastic[®]-1K)
- Existing marble layers, mosaic and ceramic tiles
- Bricks and renderings
- Cement boards, gypsumboards, e.t.c. (with suitable primer)

SikaCeram[®]-243 UltraFlex can be used in floors and walls in interior or exterior applications, on horizontal and vertical areas including:

- Kitchens, bathrooms, balconies, terraces
- Pools, tanks
- Bathrooms, showers
- Areas with underfloor heating
- Areas with intense circulation
- Facades

SikaCeram[®]-243 UltraFlex is suitable for use with underfloor heating, on facades, pools and external areas, as part of **Sika's Tile Adhesive System** in combination with flexible, waterproof, cement-based Sikalastic[®] mortars (according to EN 14891).

CHARACTERISTICS / ADVANTAGES

- Part of Sika's Tile Adhesive System in combination with flexible, cement-based Sikalastic[®] mortars
- Highly deformable
- Extended open time
- Highly thixotropic, no vertical slip
- Excellent adhesion even on demanding substrates
- Easy to apply and lay
- Weather and water resistant
- Applicable up to 15 mm

APPROVALS / CERTIFICATES

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

PRODUCT INFORMATION

Composition	Portland cement, selected aggregates, special additives and polymers
Packaging	25 kg bag
Appearance / Colour	Powder, white
Shelf life	12 months from date of production

Storage conditions	Store properly in original unopened, sealed and undamaged packaging in dry conditions, at temperatures between +5°C and +35°C.
Density	Fresh mortar density: ~ 1.60 kg/l (at +20°C)
Maximum Grain Size	~ 0,5 mm
Product Declaration	CE-marking and Declaration of Performance as Improved deformable cementitious adhesive with reduced slip and extended open time, C2TES1 according to EN 12004-1:2017, based on assessment by notified laboratory and factory production control.

TECHNICAL INFORMATION

Tensile Adhesion Strength	$\geq 1,0 \text{ N/mm}^2$ (Initial) (EN 12004-2) $\geq 1,0 \text{ N/mm}^2$ (after Heat Ageing) $\geq 1,0 \text{ N/mm}^2$ (after Water Immersion) $\geq 1,0 \text{ N/mm}^2$ (after Freeze/Thaw cycles)
Transverse deformation	$\geq 2,5 \text{ mm}$ (EN 12004-2)
Slip Resistance	$\leq 0,5 \text{ mm}$ (EN 12004-2)

APPLICATION INFORMATION

Mixing Ratio	6,5 – 7,3 L of water per 25 kg bag		
Consumption	The consumption depends on the surface profile and roughness of the substrate as well as on the size of the tiles and the placing technique, simple placing (application to one surface only “notched trowel or floating method”) or back-buttering (application to both surfaces “floating and buttering method”).		
	Tile size	Trowel size	Consumption
	Small size tiles and mosaic tiles	6 mm	~ 2 – 3 kg/m ²
	Normal size tiles (20x20cm – 45x45cm)	8 mm	~ 3 – 4 kg/m ²
	Medium and large size tiles (e.g. 60x120cm)	10 mm	~ 4 – 5 kg/m ²
	Very large tiles / highly rough substrate / double spreading technique	12 – 15 mm	~ 5 – 7 kg/m ²
Layer Thickness	max. 15 mm		
Ambient Air Temperature	+8°C min. / +35°C max.		
Substrate Temperature	+8°C min. / +35°C max.		
Pot Life	~ 3-4 hours at +23 °C		
Open Time	30 minutes (tensile adhesion strength $\geq 0,5 \text{ N/mm}^2$)		(EN 12004-2)
Adjustability Time	~ 30 min. at +23 °C		
Applied Product Ready for Use	Before grouting on floor – light foot traffic	24* hours	
	Before grouting on wall	5-12* hours	
	Full traffic	~14* days (21* days in tanks and swimming pools)	

*Values got at laboratory conditions: 23°C ± 2°C – R.H. 50% ± 5%. Higher temperatures reduce the indicated lapse time, oppositely, lower temperatures increase them.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

In normal conditions, no primer is required when the product is applied on cementitious substrates, plaster, concrete, existing tiles, mosaic, marbles. In case of highly absorbent substrates, the following primers can be used:

Substrate	Primer
Porous substrates (Gypsumboards, cement boards, e.t.c.)	Sika® Primer-11 W+
PVC floors, linoleum, epoxy coating, gypsum renderings, e.t.c.	Sika® Primer-21 W
Pore sealing / adhesion promoter on non-porous substrates (e.g. old tiles)	SikaTop®-10
Metal substrates	Sikafloor®-156/161 (broadcasted with quartz sand)

In any other substrates, please consult our Technical department. For further information please refer to the respective product data sheet of the primer used. The substrate must be cement laitance free, clean and free from dirt, oil, grease or other contaminants and loose or friable particles.

The substrate must be perfectly flat, sound and correctly aged. Any small gradients or bumps can be leveled and filled with a layer of SikaCeram®-243 UltraFlex at a maximum thickness of 5 mm, applied at least 24 h before the laying process. For higher thickness, site-batched mortars prepared with SikaLatex® Max or Sika ViscoBond® or repair mortars Sika MonoTop® or SikaRep® are to be used.

In cases of demands for levelling the substrate, the self-leveling mortars from the Sika® Level range can be used.

MIXING

Mix 25 kg bag with the necessary, above mentioned amount of water, using an electric mixer with a suitable mixing spiral at low speed, in a clean bucket and until obtaining a smooth, lump-free paste. After mixing, leave the product to stand for 5 min. and then briefly stir it again prior to application. The obtained mix will be very creamy, easily spreadable and highly thixotropic.

APPLICATION

SikaCeram®-243 UltraFlex 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 while the adhesive is still fresh, exerting an adequate pressure to ensure full 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 already applied adhesive, as this can impair the bonding process. Select the suitable trowel size that will exert the suitable ad-

hesive thickness on the back size of the tile.

SikaCeram®-243 UltraFlex can be used for fixing low absorbance tiles of maximum size:

Tile size	Use
Up to 12.000 cm ² (e.g.100cm x 120cm)	Internal floor substrates
Up to 3.600 cm ² (e.g.60cm x 60cm)	External floor substrates
Up to 2.100 cm ² (e.g.30cm x 60cm)	Internal and external wall substrates

To lay tiles of total surface of 900 cm² (e.g. 30x30 cm) and larger, the double-spreading (floating and buttering) technique of adhesive application is always recommended.

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 based substrates must have a minimum thickness of 10 mm and a maximum moisture content of 0,5%.
- If additional waterproofing underneath the tiles is required, then the following products can be used: SikaTop® Seal-107 FL-X, Sikalastic®-152, Sikalastic®-1K, Sika® SealTape-S.
- For demanding applications (e.g. external surfaces or swimming pools), use under the tile adhesive a product according to EN 14891 (e.g. Sikalastic®-1K, class CMO1P).
- Do not exceed the maximum water dosage. Apply on sound, properly prepared substrates. Do not exceed the maximum thickness (maximum layer thickness is 15mm).
- Protect freshly applied material from freezing conditions and rain, etc. for at least 24 hrs.
- Pre-dampening of tiles is not required.

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 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.

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