

PRODUCT DATA SHEET

SikaCeram[®]-270 IQ

C2TES1 HIGH PERFORMANCE, FLEXIBLE CEMENTITIOUS TILE ADHESIVE WITH EXTENDED OPEN TIME.

DESCRIPTION

SikaCeram[®]-270 IQ is a high performance, flexible cementitious tile adhesive, ready to use, for bonding ceramic tiles, porcelain tiles, stones, vitrified tiles, PU artificial stone tiles and mosaics including large format tiles on every type of floors and walls. The white adhesive is particularly recommended when fixing light colored natural stone such as marble and travertine.

USES

SikaCeram[®]-270 IQ can be used indoors and outdoors for floor or wall applications, on the following support surfaces:

- Concrete, plaster, blocks and all cementitious substrates.
- Gypsum plaster and gypsum board.
- Bricks.
- Existing tiles, including low and high absorption tiles.
- Existing PVC, linoleum or vinyl flooring inside.

SikaCeram[®]-270 IQ is suitable for high-performance and demanding applications, such as:

- Pools.
- Flooring on water-heated screeds.
- Terraces and balconies.
- Spot bonding of polystyrene, polyurethane foam, rock wool and glass wool panels.

PRODUCT INFORMATION

Composition	Portland cement, selected aggregates and special additives.
Packaging	25 kg bag.
Shelf life	12 months from date of production.
Storage conditions	Undamaged original sealed packaging, in dry condition.
Appearance and colour	White powder.

FEATURES

- Suitable for use in hot and tropical climatic conditions up to 70 °C.
- Deformable and Frost resistant.
- Easy to use with excellent workability and thixotropic creamy consistency.
- Can be applied on a vertical surface without sagging or tiles slipping, even when heavy tiles are used.
- Very good adhesion to most common substrates (concrete, cementitious mortar, stone, bricks, ...etc.)
- Indoor tile on tile of existing flooring with tile refurbishment system.
- Compatible with Sika cementitious waterproofing systems, SikaTop[®] Seal-107, SikaTop[®] Seal-107 Elastic... etc.
- For areas which are frequently wet or fully immersed.
- Applications where extensive cutting is required or extended open time is desired.

CERTIFICATES AND TEST REPORTS

Improved deformable cementitious adhesive with reduced slip and extended open time classified **C2TES1** according to EN 12004:2007 + A1:2012, CE marked.

TECHNICAL INFORMATION

Transverse deformation	2.5 mm ≤ S1 Classification ≤ 5.0 mm, S1 Classified		(EN 12002)
Tensile adhesion strength	Storage conditions	EN12004	
	Initial	≥ 1 N/mm ²	
	Water immersion	≥ 1 N/mm ²	
	Heat ageing	≥ 1 N/mm ²	
	Open time (30 min.)	≥ 0.5 N/mm ²	
Slip resistance	≤ 0.5 mm		(EN 12004)
Mixing ratio	7-7.75 liters of water per 25 kg bag 28 - 31 %		
Consumption	Consumption is always dependent on the substrate surface profile and roughness, 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 a guide: Notched trowel size Consumption Small 6 mm ~ 2-3 kg/m ² Medium 8 mm ~ 3-4 kg/m ² Large 10 mm ~ 4.5-6.5 kg/m ² The information above may only serve as a guideline. It is highly recommended to run a trial on site to determine the actual coverage and consumption per m ² .		
Layer thickness	3-10 mm		
Ambient air temperature	+5 °C min. / +35 °C max.		
Substrate temperature	+5 °C min. / +35 °C max.		
Maturing time	~3 min		
Applied product ready for use	Use	Waiting time	
	Grouting floors / walkability	24–36 hours	
	Grouting walls	4–6 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.			

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.

IMPORTANT CONSIDERATIONS

- Gypsum plaster substrates must have a maximum moisture content of 0.5 %.
- If a waterproofing layer is required under the tiles, then use suitable waterproofing system under SikaCeram®-270 IQ. 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®-270 IQ 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.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

- 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 pre-filled and levelled with an additional layer of SikaCeram®-270 IQ, to a maximum thickness of 10 mm, applied at least 24 h before the 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 clean water into a suitable, clean mixing container. While stirring slowly, add the SikaCeram®-270 IQ powder slowly 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 3-5 minutes, and then briefly stir again immediately prior to application for 15sec., The resulting mix has a very creamy consistency and is easy to apply and spread.

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APPLICATION

- SikaCeram®-270 IQ 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, exerting 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®-270 IQ adhesive.
- Avoid application in direct sunlight and/or strong wind / draughts.
- To lay any tiles larger than 900 cm² (e.g. 30×30 cm), the double-layer 'buttering' technique is always recommended.

CLEANING OF EQUIPMENT

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.

LOCAL RESTRICTIONS

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