

PRODUCT DATA SHEET

SikaCeram[®]-188 LK

C2TE HIGH PERFORMANCE CEMENTITIOUS TILE ADHESIVE

DESCRIPTION

SikaCeram[®]-188 LK is a high performance, thin layer, cementitious tile adhesive, supplied ready to use with the addition of water, for bonding ceramic tiles, porcelain tiles and mosaics of every type of floors and walls.

USES

SikaCeram[®]-188 LK is a product used for bonding ceramic tiles in continuous thin layers, up to 10 mm thick. Due to its excellent adhesion, it can be used in situations where traditional tile adhesives for bonding tiles are not suitable due to the type of tile, the substrate or the specific job situation / location. SikaCeram[®]-188 LK is suitable to bond the following types of tile:

- Ceramic, porcelain, homogeneous tiles
- All type of low and high absorption tiles SikaCeram[®]-188 LK can be used on substrates including:
 - Concrete and mortar
 - Bricks
 - Tiled surfaces (walls and floors)
 - Large size tiles
 - Under floor heating Interior painted walls - if the paint coating is well bonded and sound
- SikaCeram[®]-188 LK can be used on walls and floors, internally or externally.

FEATURES

Easy to use with excellent workability and thixotropic consistency

- SikaCeram[®]-188 LK can be applied on a vertical surface without sagging or letting the tiles slip, even when heavy tiles are used
- Very good adhesion to most common substrates (concrete, cementitious mortar, stone, bricks, etc.)
- Very good adhesion to existing tiles Easy to use with excellent workability and thixotropic consistency
- Tile on tile of existing flooring with tile refurbishment system
- Compatible with Sikalastic[®]-1 KMY, SikaTop[®] Seal - 107 LK and SikaTop[®] Seal-109 LK

CERTIFICATES AND TEST REPORTS

SikaCeram[®]-188 LK is classified as C2TE in compliance with EN 12004. SikaCeram[®]-188 LK is a cementitious adhesive (C) with improved adhesion (2), slip resistance (T), and extended open time (E).

PRODUCT INFORMATION

Composition	Cementitious mortar									
Packaging	25 kg bag									
Shelf life	6 months from date of production									
Storage conditions	Store properly in dry conditions, in undamaged and unopened, original sealed packaging. Not sensitive to frost.									
Appearance and colour	Grey powder									
Maximum grain size	Dmax: 0.4 mm									
Tensile adhesion strength	<table><tr><td>Standard Condition</td><td>$\geq 1.0 \text{ N/mm}^2$</td><td>(BS EN 1348:2007)</td></tr><tr><td>Heat Ageing</td><td>$\geq 1.0 \text{ N/mm}^2$</td><td></td></tr><tr><td>Water Immersion</td><td>$\geq 1.0 \text{ N/mm}^2$</td><td></td></tr></table>	Standard Condition	$\geq 1.0 \text{ N/mm}^2$	(BS EN 1348:2007)	Heat Ageing	$\geq 1.0 \text{ N/mm}^2$		Water Immersion	$\geq 1.0 \text{ N/mm}^2$	
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Heat Ageing	$\geq 1.0 \text{ N/mm}^2$									
Water Immersion	$\geq 1.0 \text{ N/mm}^2$									
Skid / slip resistance	$\leq 0.5 \text{ mm}$									

APPLICATION INFORMATION

Mixing ratio	6.0–6.5 L of water per 25 kg bag						
Fresh mortar density	Fresh mortar density: $\sim 1.70 \text{ kg/l}$ (at +25 °C)						
Consumption	<p>This depends on the level, profile and surface roughness of the substrate, the size of the tiles and the technique of placing (simple placing or "back"-buttering). As a guide, in kilogram of powder per m^2 on flat surfaces:</p> <table><tr><td>Mosaics and small tiles</td><td>$2.0\text{--}4.5 \text{ kg/m}^2$</td></tr><tr><td>Normal size tiles (20 cm x 20 cm)</td><td>$4.5\text{--}9.0 \text{ kg/m}^2$</td></tr><tr><td>ge size tiles up to 3 600 cm^2 (internal floors) and 2 100 cm^2 (external floors)</td><td>$9.0\text{--}13.5 \text{ kg/m}^2$</td></tr></table> <p>The consumption above may only serve as a guide. It is highly recommended to carry-out trials on site to determine the actual coverage.</p>	Mosaics and small tiles	$2.0\text{--}4.5 \text{ kg/m}^2$	Normal size tiles (20 cm x 20 cm)	$4.5\text{--}9.0 \text{ kg/m}^2$	ge size tiles up to 3 600 cm^2 (internal floors) and 2 100 cm^2 (external floors)	$9.0\text{--}13.5 \text{ kg/m}^2$
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Layer thickness	3 mm min. / 10 mm max.						
Ambient air temperature	+5 °C min. / +40 °C max.						
Substrate temperature	+5 °C min. / +40 °C max.						
Open Time	$\geq 0.5 \text{ N/mm}^2$ at 30 minutes (at 23° C) (BS EN 1346:1997) Under unfavourable conditions (direct sun, high ambient temperature and strong wind), the open time may be shorter.						
Adjustability time	Once the tiles are placed into the mortar, they can be adjusted for ~ 30 minutes (at +20 °C).						
Applied product ready for use	At +25 °C <table><tr><td>Before jointing works</td><td>Min. 24 hours</td></tr><tr><td>Before opening to light foot traffic</td><td>Min. 24 hours</td></tr><tr><td>Before opening to full traffic</td><td>Min. 7 day</td></tr></table>	Before jointing works	Min. 24 hours	Before opening to light foot traffic	Min. 24 hours	Before opening to full traffic	Min. 7 day
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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

Follow the recommended water dosage when mixing SikaCeram®-188 LK. Do not exceed the maximum recommended water dosage or go below the minimum recommended water dosage.

- Apply only to sound, prepared substrates.
- Do not exceed the maximum layer thickness or go below the minimum layer thickness.
- Protect freshly applied material from freezing conditions, rain, etc.
- Do not attempt to dampen the applied adhesive to extend the open time as this interferes with the bond performance.
- Movement joints (width of 6–10 mm) must be provided to allow for movement between adjacent building components, over existing joints in the substrate, around fixed elements in the floor (e.g. columns), at internal vertical corners, around floor perimeters, in internal floors (every 6–9 m), in external floors (every 4.5 m), on wall surfaces at storey heights horizontally (3–4.5 m apart vertically). Movement joints should go right through the tile adhesive bed to the background and be kept free from dirt and adhesive droppings.

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 / PRE-TREATMENT

- Ensure all concrete slabs are allowed to cure fully and have a wood float finish. Steel trowel finished concrete surfaces must be mechanically abraded prior to commencement of tiling.
- Ensure all surfaces are sound, dry and free from excessive movement, oil, dust, grease, wax, curing compounds, release agents and any other loose or contaminating materials. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.
- Weak concrete and/or cement laitance must be removed. Repairs to the substrate, filling of blowholes / voids, etc. must be carried out using appropriate products from the SikaTop® or Sika® MonoTop® range of material.
- If the substrate is very porous, and/or if the temperature is high and the relative humidity is low, it is advisable to pre-dampen the surface (do not leave any standing water) or apply Sika® Primer-11 WMY. Please contact Sika local representative for further

information on about the recommended primer for the specific substrate.

- The maximum variation in the plane of the concrete must not exceed 5 mm in 3 metres for floors and 4 mm in 2 metres for walls. Cementitious substrates must be at least 1 month old. All rendered surfaces must be allowed to cure for at least 7 days prior to the commencement of tiling. Allow a waiting time of 24–48 hours if repair materials (e.g. SikaTop® / Sika® MonoTop®) are used to repair the substrate.
- The recommended thickness for compressed fibre cement sheets are minimum, 15 mm for floor substrates and 9 mm for wall substrates.
- The recommended thickness for gypsum plasterboard sheets are minimum, 10 mm for wall substrates.

MIXING

Mix thoroughly with clean water for a minimum of 3 minutes. Leave material to stand in container (for a minimum of 5 minutes). Then, remix the material for 15 seconds - the product is now ready for use. SikaCeram®-188 LK must be mechanically mixed using a forced action mixer or in a clean container using a drill and mixing paddle (< 500 rpm). A normal free fall concrete mixer is not suitable.

APPLICATION

SikaCeram®-188 LK is applied using a notched trowel onto the substrate. Choose the size of trowel that will give the right thickness on the back of the tile. Once the surfaces have been appropriately prepared, apply SikaCeram®-188 LK onto the substrate using an appropriate serrated trowel. SikaCeram®-188 LK should be applied onto the substrate at a rate of 1 m² at a time. Application rates greater than this can result in the adhesive skinning before the tiles are laid. Once the adhesive is applied onto the substrate, ensure that it does not skin prior to bedding the tiles. If a surface film has developed, pass a notched trowel through the adhesive. Rework the adhesive before placing the tiles within the open time. When placing the tiles into the adhesive, press them in using the Tarver Method; press, slide perpendicular and return. Ensure full coverage of adhesive and no voids is underneath the tiles. For tiles with lugs, grooves or uneven backing, it may be required to back butter the tile with adhesive before placing them. The final bed thickness of SikaCeram®-188 LK should be at least 1 mm for wall and 3 mm for floor. Once tiling works are completed, do not disturb the tiled surface for at least 6–8 hours (at +20 °C). As a guide: SikaCeram®-188 LK is used for fixing absorbent tiles up to a maximum size of 10 000 cm² (e.g. 60 cm x 120 cm) for indoor floors, up to 3 600 cm² (e.g. 60 cm x 60 cm) for indoor walls and outdoor paving, and 2 100 cm² (e.g. 30 cm x 60 cm or 45 cm x 45 cm) for façades without any mechanical clamps.

CLEANING OF EQUIPMENT

Clean all tools and application equipments with clean water immediately after use. Hardened or cured material can only be removed mechanically.

PRODUCT DATA SHEET

SikaCeram®-188 LK
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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.

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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