

PRODUCT DATA SHEET

SikaCeram[®]-206 ECO

C2E HIGH PERFORMANCE, ENVIRONMENTAL FRIENDLY CEMENTITIOUS TILE ADHESIVE

DESCRIPTION

SikaCeram[®]-206 ECO is a high performance, thin layer, environmental friendly 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, walls.

USES

SikaCeram[®]-206 ECO, 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 or location.

SikaCeram[®]-206 ECO is suitable to bond the following types of tile:

- Ceramic, porcelain, homogeneous tiles, granites, marble
- All type of low and high absorption tiles

SikaCeram[®]-206 ECO 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[®]-206 ECO can be used on walls and floors, internally or externally.

CHARACTERISTICS / ADVANTAGES

- Easy to use with excellent workability and thixotropic consistency
- Very good adhesion to most common substrates (concrete, cementitious mortar, stone, bricks, etc.)
- Very good adhesion to existing tiles
- Tile on tile of existing flooring with tile refurbishment system

APPROVALS / STANDARDS

SikaCeram[®]-206 ECO is classified as C2E in compliance with EN 12004.

SikaCeram[®]-206 ECO is a cementitious adhesive (C) with improved adhesion (2), and extended open time (E).

Singapore Green Label by Singapore Environment Council, 022-085-2959 (Eco-Friendly Building Material)

PRODUCT INFORMATION

Composition	Cementitious mortar
Packaging	25 kg bag
Appearance / Colour	Grey powder
Shelf Life	6 months from date of production

Storage Conditions	Store properly in dry conditions, in undamaged and unopened, original sealed packaging at temperatures between +5 °C to +35 °C. Protect from direct sunlight, rain and water. Not sensitive to frost.
Density	Fresh mortar density: ~1.45 kg/l (at +25 °C)
Maximum Grain Size	Dmax: 0.4 mm

TECHNICAL INFORMATION

Tensile Adhesion Strength	Standard Condition	≥ 1.0 N/mm ²	(BS EN 1348:2007)
	Heat Ageing	≥ 1.0 N/mm ²	
	Water Immersion	≥ 1.0 N/mm ²	

APPLICATION INFORMATION

Mixing Ratio	6.0–6.5 L of water per 25 kg bag		
Consumption	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:		
	Mosaics and small tiles	2.0–4.5 kg/m ²	
	Normal size tiles (20 cm x 20 cm)	4.5–9.0 kg/m ²	
	Large size tiles up to 3 600 cm ² (internal floors) and 2 100 cm ² (external floors)	9.0–13.5 kg/m ²	
	* This may only serve as a guide. It is highly recommended to carry-out trials on site to determine the actual coverage.		
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	Open Time	≥ 0.5 N/mm ² at 30 minutes	(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 within ~ 30 minutes (at +20 °C).		
Applied Product Ready for Use	At +25 °C		
	Before jointing works	Min. 24 hours	
	Before opening to light foot traffic	Min. 24 hours	
	Before opening to full traffic	Min. 7 days	

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 SikaCeram®-206 ECO, preferably by brush and/or vacuum.
- Weak concrete and/or cement laitance must be re-

moved. Repairs to the substrate, filling of blowholes / voids, etc. must be carried out using 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 dampen down the substrate's surface with water (do not leave any standing water) or apply Sika® Primer-11 WMY. Please contact Sika's local representative for further information on the recommended primer for the specific substrate.
- The maximum variation in the level of the substrate must not exceed 5 mm for floors (using a 3 metres straight-edge) and 4 mm for walls (using a 2 metres straight-edge).
- 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 works. Allow a waiting time of 24–48 hours if repair materials (e.g. SikaTop® / Sika® MonoTop®) are used to repair the substrate.

- All types of cement board / dry walls should be fixed in accordance with the manufacturer's instructions and the relevant standards.
- The recommended thickness for fibre cement sheets is 9 mm (minimum) for heavy duty commercial applications and 6 mm (minimum) for underlay or wall / floor.
- The recommended thickness for compressed fibre cement sheets is 15 mm (minimum) for floor and 9 mm (minimum) for wall.
- The recommended thickness for gypsum plaster-board sheets is 10 mm (minimum) for wall.

MIXING

Place about 80 % of the pre-measured clean water (depending on the consistency required) into a clean container and gradually add the whole bag of SikaCeram®-206 ECO into it while continuously mixing. Add the remaining water until the desired consistency is obtained. Mix thoroughly for a minimum of 3 minutes.

Leave the material to stand in the container for a minimum of 5 minutes. Then, remix the material for another 15 seconds. SikaCeram®-206 ECO is now ready for use.

SikaCeram®-206 ECO must be mechanically mixed using a force-action mixer or in a clean container using a drill and mixing paddle (< 500 rpm). Do not use a free fall concrete mixer to mix SikaCeram®-206 ECO.

APPLICATION

SikaCeram®-206 ECO 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. After the surfaces of the substrate has been prepared, apply SikaCeram®-206 ECO onto the substrate using a serrated/notched trowel. SikaCeram®-206 ECO should be applied onto the substrate at a rate of 1 m² per installation. Application rates greater than this can result in skinning of the adhesive before the tiles are laid. Once the adhesive is applied onto the substrate, ensure skinning has not occurred prior to setting the tiles. If a surface film has developed, make a pass over the adhesive using a notched trowel. Rework the adhesive before setting the tiles within the open time. When setting the tiles into the adhesive, use the Tarver Method; press, slide perpendicular and slide return. This method will ensure that any air entrapped between the beads comes out easily at the ends. For tiles with lugs, grooves or uneven backing, it may be required to back butter the tile with adhesive before setting them down.

The final bed thickness of SikaCeram®-206 ECO should be at least 1 mm for wall and 3 mm for floor. Once the tiling works are completed, do not disturb the tiles for at least 6–8 hours.

As a guide:

SikaCeram®-206 ECO 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 TOOLS

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

IMPORTANT CONSIDERATIONS

- Follow the recommended water dosage when mixing SikaCeram®-206 ECO.
- 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 and rain.
- For Marble and Granite tiles, it is recommended that trials be carried-out on site with SikaCeram®-206 ECO to determine the suitability of use.
- Do not attempt to dampen down the adhesive on the floor/wall to extend the open time as this may affect 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 on the floor (e.g. columns), at internal vertical corners, around the perimeter of the floor, at internal floors (every 6–9 m, when exposed to sunlight), at external floors (every 4.5 m), and on wall surfaces (3–4.5 m apart vertically).
- Movement joints should go right through the adhesive bed to the substrate and be kept free from dirt and adhesive droppings. The joints should be filled with Sikaflex®-11 FC or Sikaflex®-PRO for floors, and Sikasil®-C for walls.

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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