Construction

Product Data Sheet
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SikaCeram®-100 Basic

Powder adhesive to lay ceramic tiles, C1 classified according to EN 12004.

Product Description	Sika Ceram® -100 Basic is a single component, ready to use tiling adhesive mortar combining high performance cement with selected silicon/quartz mineral charges and specific additives. Only requires addition of water.
Uses & Advantages	■ Factory mixed - consistent quality. ■ Easy to use, just add water ■ Better coverage for wall and floor tilling. ■ Very good workability and thixotropic consistency ■ Good bond adhesion up to 1.5 N/mm^2. ■ It can be used for thin bed application up to 5 mm layer thickness. Sika Ceram® -100 Basic is suitable to bond the following types of tile: - Ceramic, natural and reconstituted stone tiles - All type of high absorption ceramic tiles, small and medium size - Sika Ceram® can be used internally on walls and floors, and externally on floors. - Spot-gluing insulating panels made of polystyrene, polyurethane foam, rock or glass wool Sika Ceram® -100 Basic can be used on substrates including: - Concrete and mortar - Bricks and stone Mixed with SikaCeram® T-Latex (7-7.25 L /bag) can be utilized for: ■ Tiling porcelain stoneware in large formats on indoor and outdoor ■ Tiling on facades ■ Tiling natural stone and marble, so long as they are not affected by water or liable to stain ■ Tiling on water- or electric- heated screeds ■ Tiling on swimming pools
Approvals / Standards	White and grey powder adhesive for fixing ceramic tiles. EN12004 class C1. Sika Ceram -100 Basic has been tested as per SCAQMD Rule 1168' Result VOC Content 0 g/L

Product Data

Form	Powder.
Colour	Grey / White.
Packaging	25 kg bags.
Storage Condition	Store in a dry cool place.
Shelf Life	12 months from date of production if stored properly in original unopened packing.

Technical Data

Chemical Base	Portland cement, selected aggregates, water retention additives and re-dispersible polymer.
Density (Bulk)	Fresh mortar density: ~1.5 kg/l.
PH of Mix	Approx. 12 ±1.
Pot Life	60 minutes at 30°C
Adjustability Time	Approx. 30 minutes.

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Open Time	Approx.30 minutes at 25°C (Skinning Wacker Method)

Mechanical / Physical Properties

Bonding Strength	Approx. 1.2 N/mm^2 (after 28 days – ASTM C321) - (> 1.0 N/mm^2 Brick Failure).
Compressive Strength	Approx. 20 N/mm^2 (after 28 days).

Application Conditions / Limitations

Consumption

The consumption is dependent on the surface profile and roughness of the substrate as well as on the size of the tiles and the placing technique (simple placing or back-buttering). Approx. 4.5 – 6.6 m2 at 2 - 3 mm thickness

As a guide, in kg of powder per m²:

Types of tile	Trowel sizes	Consumption
Small tiles	6 mm	~ 2 - 3 kg/m^2
Normal size tiles (20x20cm – 40x40cm)	8 mm	~ 3 - 4 kg/m^2
Large tiles and double spreading	10 mm	~ 5 - 7 kg/m^2

Preparation of Substrate

Concrete surface must be clean, sound, level and uncontaminated by oil or grease. Remove cement laitance, formwork traces and loosely adhering particles by sand blasting or high pressure water jetting. Absorbent substrates must be pre-wetted to saturated surface dry (SSD) conditions.
Any small gradients or bumps or gravel can be leveled and filled with a layer of SikaCeram® -100 Basic, in maximum thickness of 5 mm, applied at least 24 h before laying the ceramic coating. For higher thickness, mortars of Sika® Rep or Sika® Level range should be used.

Application Temperature Range

From 5°C to 35°C.

Application Instruction

Mixing Ratio

~ 6.5 – 7.0 litres of water (26.5% ± 1%) for 25 kg of SikaCeram® -100 Basic.

Mixing

Mix 25 kg bag with the necessary, above mentioned, amount of water, using an electric blender with a suitable mixing spiral at low speed, in a clean bucket, and up to obtain a smooth paste free of lumps. To lay porcelain tile, large formats, on facade, etc. (see Fields of Application) mix the product with SikaCeram® T -Latex at ratio 7-7.25 liters/bag.
Use a blender at 500 rpm max.; do not mix at faster rate because of mechanical strength decay of the cured product.
After blending, leave the product curing for 5-10 min., preferably, and then briefly stir the mix prior to application. The obtained mix results very creamy, easily spreadable, and highly thixotropic.

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Application Method / Tools	SikaCeram® -100 Basic 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 on fresh glue, exerting an adequate pressure to ensure 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 adhesive already applied, it damage the adhesive. The product mixed with SikaCeram® T-Latex can be used to lay absorbing and not-absorbing tiles in sizes preferably not larger than 10000 cm2 (e.g. 60x120 cm) for indoor floors, 7200 cm2 (e.g. 80x80 cm) for outdoor floors, and 3600 cm2 (e.g. 60x60 cm) for indoor walls or in façade without support of mechanical fixing. The use of the product to lay absorbing tiles of maximum size up to 2100 cm2 (e.g. 30x60 cm) indoors, and 900 cm2 (e.g. 30x30 cm) for outdoor paving is preferable. These limits are valid for cementitious, non-heating substrates. For any other kind of substrates, please contact the Technical Service. To lay tiles sized 900 cm2, and over (e.g. 30x30 cm), the double-spreading (buttering) technique of adhesive application is always recommended.
Cleaning of Tools	Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.
Notes on Application / Limitations	Gypsum plaster substrates must have a minimum thickness of 10 mm and a maximum moisture content of 0.5%. - Refer to the relevant product data sheet for more information. - Protect freshly applied material from freezing conditions and rain, etc. - Make a test area prior to carrying out any work with natural stones tiles. - It is not usually necessary to pre-dampen the tiles. SikaCeram® -100 Basic shall not be applied on the following cases: - On precast concrete or helicopter finished surfaces, plasterboard - On metal, old ceramic, wood, rubber, PVC, linoleum floorings. - To realize coats thicker than 5 mm - For large size of tiles - On facades - At temperatures lower than 5°C or higher than 35°C

Curing Details

Applied Product ready for use	Before floor grouting – light foot traffic 24-36 hours* Before wall grouting 4-6 hours* Before opening to full traffic Approx. 14 days.

Safety Instructions

Ecology	Do not dispose of into water or soil but according to local regulations.
Transport	Non-hazardous.
Safety Precautions	Wear gloves and gloves, In contact with eyes or skin product may cause irritation.
Toxicity	Non-Toxic under relevant health and safety codes.

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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