

## PRODUCT DATA SHEET

# SikaCeram<sup>®</sup>-100 Basic

### POWDER TILE ADHESIVE TO LAY CERAMIC TILES

#### DESCRIPTION

SikaCeram<sup>®</sup>-100 Basic is a cementitious adhesive for laying absorbent tiles on absorbent substrates by residential areas. Class c1 according to EN 12004.

#### USES

Bonding the following types of tiles:

- Ceramic
- Earthenware

Bonding tiles for the following applications:

- Balconies
- Bathrooms
- Kitchens
- Residential environments
- Terraces
- Wet areas
- Spot-fixing indoor insulating panels

SikaCeram<sup>®</sup>-100 Basic mixed with SikaCeram<sup>®</sup> T Latex is used for:

Bonding the following types of tiles:

- Ceramic
- Gres porcelain
- Earthenware
- Glazed
- Porcelain
- Stoneware
- Terrazzo
- Unglazed

Bonding tiles for the following applications:

- Balconies
- Bathrooms
- Commercial / Residential environments
- Heating floors
- Kitchens
- Swimming pools
- Terraces
- Wet areas
- Overlaying existing indoor firmly fixed ceramic tiles or stones
- Interior and exterior use

#### CHARACTERISTICS / ADVANTAGES

- Bonding floor and wall tiles
- Frost resistant
- Smooth application
- Layer thickness: 6.0 mm
- Suitable for absorbent ceramic tiles

#### APPROVALS / CERTIFICATES

CE Marking and Declaration of Performance to EN 12004 - Adhesives for Tiles - C1

## PRODUCT INFORMATION

Product declaration	EN 12004: C1
Composition	Portland cement, selected aggregates, water retention additives, re-dispersible polymer
Packaging	25 kg bag Refer to current price list for packaging variations.
Shelf life	12 months from date of production
Storage conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.
Appearance and colour	Powder / Grey
Maximum grain size	D <sub>max</sub> : 0.5 mm
Density	~1.5 kg/l (fresh mortar)

## TECHNICAL INFORMATION

Tensile adhesion strength	Initial	$\geq 0.5 \text{ N/mm}^2$	(EN1348)
	Water immersion	$\geq 0.5 \text{ N/mm}^2$	
	Heat ageing	$\geq 0.5 \text{ N/mm}^2$	
	Freeze-Thaw cycles	$\geq 0.5 \text{ N/mm}^2$	

## SYSTEM INFORMATION

## APPLICATION INFORMATION

Mixing ratio	~6.6 litres of water per 25 kg bag (26.5 % ± 1 %)												
Consumption	<p>Consumption is dependent on the substrate, surface profile, roughness, size of the tiles, the joints between them and application technique (i.e. single spreading / floating method or double spreading / buttering method).</p> <p>As a guide for a single adhesive layer:</p> <table><thead><tr><th>Size of tiles</th><th>Notched* trowel size</th><th>Consumption</th></tr></thead><tbody><tr><td>Small</td><td>6 mm</td><td>~2–3 kg/m<sup>2</sup></td></tr><tr><td>Medium</td><td>8 mm</td><td>~3–4 Kg/m<sup>2</sup></td></tr><tr><td>Large</td><td>10 mm</td><td>~5–7 Kg/m<sup>2</sup></td></tr></tbody></table> <p>*Square notched</p> <p>These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.</p>	Size of tiles	Notched* trowel size	Consumption	Small	6 mm	~2–3 kg/m <sup>2</sup>	Medium	8 mm	~3–4 Kg/m <sup>2</sup>	Large	10 mm	~5–7 Kg/m <sup>2</sup>
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Layer thickness	6 mm max.												
Ambient air temperature	+5 °C min. / +35 °C max.												
Substrate temperature	+5 °C min. / +35 °C max.												
Maturing time	~3 minutes												
Pot Life	~6 hours												
Open Time	$\geq 0.5 \text{ N/mm}^2$ after 20 minutes (EN 1346)												
Adjustability time	~40 minutes												

## Applied product ready for use

Use	Waiting time
Grouting - floors including foot traffic	24–36 hours
Grouting- walls	4–6 hours
Full traffic exposure	~14 days
Water immersion (mixed with latex)	~21 days

Values determined in laboratory conditions: +23 °C ± 2 °C, R.H. 50 % ± 5 %. Higher temperatures will reduce the indicated waiting times, lower temperatures increase waiting time.

## 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 and anhydrite screed substrates must have a maximum moisture content of 0.5 %.
- If a waterproofing layer under tiles is required, cement-based and acrylic based products are suitable.
- Avoid application in direct sunlight and/or strong wind / draughts.
- Protect freshly applied material from freezing conditions, rain and any other conditions that could affect the product.
- Do not apply on metal or wood surfaces
- Do not add anything to the product that is not specified in this Product Data Sheet.
- Do not use for any 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

### EQUIPMENT

Select the most appropriate equipment required for the project:

#### Substrate preparation equipment

- Grinding equipment
- Abrading equipment
- Power washing equipment
- Sandblasting equipment

#### Mixing equipment

- Low speed electric single or double paddle mixer (300–400 rpm) with a spiral mixing paddle.

#### Application equipment

- Notched trowel

### SUBSTRATE QUALITY / PRE-TREATMENT

- Cementitious substrates must be sufficiently cured and dried (2–6 weeks).
- All substrates must be structurally sound, able to support the weight of the new tiling and provide a firm and securely fixed background.
- Substrates must be clean, dry, free of any loose or friable particles, contaminants such as dust, dirt, oil, wax polish, grease, cement laitance or efflorescence.
- Use adequate mechanical preparation techniques to remove from the substrate, all traces of any materials that could reduce the product's adhesion to the substrate.
- Smooth surfaces must be roughened lightly to improve adhesion.
- To confirm adequate surface preparation and adhesion, carry out a small trial before full application.

- Any small surface defects and variations in level, profile, or around exposed aggregates. Prefill and level with an additional layer of SikaCeram®-100 Basic to a maximum thickness of 5 mm, applied at least 24 hours before full adhesive application.
  - For larger and thicker areas of substrate re-profiling and making good, use suitable mortars from the Sika MonoTop® or Sikafloor® Level range.
  - Identify cracks in the substrate and seal appropriately with Sikadur® epoxy resins.
  - When laying tiles on non-absorbent or substrates with limited absorbency, such as existing ceramic tiles, painted surfaces etc. Check these substrates are all sound, firm and securely bonded. Use suitable degreasing / descaling products to thoroughly and completely clean the substrate.
  - For applications in hot climates / environments, or on absorbent substrates. Thoroughly pre-dampen the substrate immediately before product application. Avoid any ponding / standing water on the substrate. Surface must not be damp to touch.
  - For tiling in constantly damp or wet rooms, a suitable Sika® waterproofing product / systems must be applied to the substrate before tiling.
- strong wind.
- Preferred use of SikaCeram®-100 Basic is for laying absorbent tiles with a size of up to 900 cm<sup>2</sup> (e.g. 30x30 cm).
  - SikaCeram®-100 Basic mixed with SikaCeram® T Latex can be used for laying absorbent and non-absorbent tiles indoor without any size or support limits. Preferred use outdoors is for laying non-absorbent tiles not larger than 10000 cm<sup>2</sup> (e.g. 100x100 cm) for floors, and 7000 cm<sup>2</sup> (e.g. 80x80 cm) for walls without support of mechanical fixing.
  - For laying tiles larger than 900 cm<sup>2</sup> (e.g. 30x30 cm) the double-spreading (buttering) method of application is always recommended.
  - Coverage on the back of the tiles must be 100 %.

#### CLEANING OF EQUIPMENT

Clean all tools and application equipment after use with water. Hardened material can only be removed mechanically.

#### MIXING

##### IMPORTANT

Avoid over-mixing to minimise air entrainment.

Note: Do not mix more material than can be used within 60 minutes

Requirement: Use a low speed electric single or double paddle mixer (600 rpm) with a spiral mixing paddle.

1. Pour the recommended amount of clean cold water into a clean mixing container.
2. Gradually add SikaCeram®-100 Basic powder to the water while mixing.
3. Mix thoroughly until a uniformly coloured, smooth mix is achieved.
4. Do not mix for 2–3 minutes to allow mixed product to 'mature'.
5. Remix for ~30 seconds.

#### APPLICATION

- SikaCeram®-100 Basic is applied using a notched trowel.
- Apply a sufficient amount of product to ensure adequate '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, remove the adhesive layer with the flat part of the spatula and apply a fresh layer of adhesive.
- Avoid application under direct sun exposure and/or

## 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.

## 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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### Product Data Sheet

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