

# PRODUCT DATA SHEET

## Sikadur®-54 Ceramic

### 2-COMPONENT EPOXY GROUT FOR JOINTS 5 TO 20 MM WIDE

#### DESCRIPTION

Sikadur®-54 Ceramic is a 2-component grout, based on epoxy resin and contains quartz aggregates. Suitable for use as a delicate finishing and glossy colours and is ideal for areas that need to be kept perfectly clean.

#### USES

Sikadur®-54 Ceramic may only be used by experienced professionals.

Sikadur®-54 Ceramic is used for rigid, waterproof and chemical resistant sealing of joints in ceramic wall and floor coverings, which are subjected to chemical and mechanical attack.

##### Chemical/acids:

- Laboratories.
- Food and beverage industries.
- Medical and therapeutic rooms.

##### Aggressive water:

- Swimming pools with thermal, mineral or salt water.
- Storage tanks.
- Sewage treatment plants.
- Stables.
- Toilet facilities.
- Steam and water-jet cleaning industrial washing facilities.

#### CHARACTERISTICS / ADVANTAGES

- Easily workable consistency. Trowel and rubber rake application.
- Long pot-life even after application, sufficient time to wash off with warm water.
- Rapid final hardening.
- High mechanical strength.
- Good resistance to chemicals.
- Excellent adhesion to ceramic tiles without primer.

#### PRODUCT INFORMATION

<b>Composition</b>	Epoxy resin, quartz sand and special additives.
<b>Packaging</b>	Pre-measured packs of 5 kg (1 kg A + 4 kg B).
<b>Colour</b>	<b>Available Colours:</b> <ul style="list-style-type: none"> <li>▪ Beige</li> <li>▪ Red Oxide</li> <li>▪ Light Grey</li> <li>▪ RAL 7037 (approx.)</li> <li>▪ RAL 7010 (approx.)</li> </ul>
<b>Shelf life</b>	9 months from date of production.
<b>Storage conditions</b>	Stored in undamaged original sealed packaging, in dry conditions and protected from direct sunlight, freezing and high temperatures (max. 35 °C).
<b>Density</b>	~1,7 kg/l

## TECHNICAL INFORMATION

<b>Compressive Strength</b>	After dry storage: ~ 50 N/mm <sup>2</sup>	(EN 12808-3)																																								
<b>Tensile Strength in Flexure</b>	After dry storage: ~ 30 N/mm <sup>2</sup>	(EN 12808-3)																																								
<b>Tensile Adhesion Strength</b>	> 1,5 N/mm <sup>2</sup> On concrete, depends on relevant concrete tensile strength (Concrete failure).																																									
<b>Chemical Resistance</b>	According to DIN 53168, continuous immersion for 4 weeks (hardening time: 14 days at 20°C): <table><tr><td>Acetic acid 5%</td><td>+</td><td>Lye 10% active chlorine</td><td>+</td></tr><tr><td>Ammonia 25%</td><td>+</td><td>Nitric acid 2%</td><td>+</td></tr><tr><td>Caustic soda 5%</td><td>+</td><td>Phenol 1%</td><td>+</td></tr><tr><td>Citric acid 10%</td><td>+</td><td>Phosphoric acid 10%</td><td>+</td></tr><tr><td>Ethanol 90%</td><td>o</td><td>Phosphoric acid 50%</td><td>+</td></tr><tr><td>Formaldehyde 20%</td><td>+</td><td>Animal fat with 3% cooking salt</td><td>+</td></tr><tr><td>Formic acid 5%</td><td>+</td><td>Sea water</td><td>+</td></tr><tr><td>Formic acid 10%</td><td>o</td><td>Tartaric acid 15%</td><td>+</td></tr><tr><td>Glycerine</td><td>+</td><td>Water, 40°C</td><td>+</td></tr><tr><td>Lactic acid 10%</td><td>+</td><td>Whey</td><td>+</td></tr></table> + Min. resistance 4 weeks. Discolouration and slight softening possible. o Resistance limited in time approximately 3 days.	Acetic acid 5%	+	Lye 10% active chlorine	+	Ammonia 25%	+	Nitric acid 2%	+	Caustic soda 5%	+	Phenol 1%	+	Citric acid 10%	+	Phosphoric acid 10%	+	Ethanol 90%	o	Phosphoric acid 50%	+	Formaldehyde 20%	+	Animal fat with 3% cooking salt	+	Formic acid 5%	+	Sea water	+	Formic acid 10%	o	Tartaric acid 15%	+	Glycerine	+	Water, 40°C	+	Lactic acid 10%	+	Whey	+	
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## APPLICATION INFORMATION

<b>Mixing Ratio</b>	A : B = 1 kg : 4 kg.
<b>Consumption</b>	It can be calculated as follows: $\left( \frac{A + B}{A \times B} \right) \times C \times D \times 1,70 = \text{kg/m}^2$ <p>A - ceramic width (mm) B - length of ceramic (mm) C - thickness of the ceramic (mm) D - joint width (mm)</p> <p>Eg: 30 x 30 cm tiles with 11 mm thickness and a joint between 8 mm tiles: <math>(300 + 300) / (300 \times 300) \times 11 \times 8 \times 1,8 = \sim 1,05 \text{ kg / m}^2</math></p> <p>This consumption is approximate and should be adjusted to each work by performing tests.</p>
<b>Layer Thickness</b>	Gaps from 5 at 20 mm width
<b>Pot Life</b>	~90 minutes at 20 °C.
<b>Open Time</b>	~ 60 minutes at +20 °C.

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

Joints must be dry, sound and free from dust, grease, oil and loosely adhering particles. Any remaining tile adhesive must be removed.

### MIXING

Stir component A prior to batching. Add entire content of component A to component B and mix for at least 3 minutes using a slow speed electric stirrer (maximum 400 r.p.m.) until a uniform colour is achieved.

## APPLICATION METHOD / TOOLS

- Apply Sikadur®-54 Ceramic into the joints using a trowel, or pour Sikadur®-54 Ceramic onto the floor, raking it out in order to fill the joints and, smoothing it off provisionally.
- After half an hour and not later than one hour, remove the surplus material with warm water, using a wet sponge. In vertical joints, add 0,5% parts by weight of Sika Extender-T thixotropic agent to Sikadur®-54 Ceramic and stir thoroughly prior to use.

## CLEANING OF EQUIPMENT

As long as the product has not hardened, use Colma Cleaner for tools and warm water and soap for skin. Hardened material can only be removed mechanically.

## IMPORTANT CONSIDERATIONS

- Protracted contact with acids and oxidants causes colour change
- Do not attempt to use random mixing ratios of the two product components: this might compromise the hardening process
- Do not use the product after it has started to set.
- Prepare a fresh mixture.
- Use suitable protection equipment while handling and applying the product
- Do not use on porous surfaces (e.g. cotto)
- Do not use Sikadur®-54 Ceramic when there is water in the joints
- Do not use dark colour shades of the product on unglazed split tiles
- Do not use for grouts subjected to movements
- Do not wash with acid or strong oxidizing substances during application
- Evaluate the cleanability before use on tiles that have a special nature
- Avoid stagnation of cleaning water on joints recently tiled

## 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.

## 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 the exact product data and uses.

## 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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