

## PRODUCT DATA SHEET

# SikaCeram<sup>®</sup>-277 Flexible Standard Set

Standard setting adhesive with extended open time.

### PRODUCT DESCRIPTION

SikaCeram<sup>®</sup>-277 Flexible Standard Set is a standard setting, thin-bed, wall and floor tile adhesive. This product's long working pot-life and extended open time is designed for applications where extensive cutting is required during application.

SikaCeram<sup>®</sup>-277 Flexible Standard Set can be used to fix all types of ceramic and porcelain tiles, including natural stone, mosaics, porcelain, and vitrified tiles, with the white adhesive particularly recommended when fixing light coloured natural stone such as marble and travertine.

### USES

- Suitable for use:
- With Underfloor heating
  - Concrete
  - Sand/cement screeds
  - Tile backer boards
  - Cement faced fibre boards
  - Plaster
  - Plasterboard
  - Internally and Externally
  - On Walls & Floors

### CHARACTERISTICS / ADVANTAGES

- Withstands slight movement and stress.
- For areas which are frequently wet or fully immersed in water.
- Applications where extensive cutting is required or extended open time is desired.
- Remains workable for up to 4 hours depending on absorbency of substrate and temperature.

### APPROVALS / STANDARDS

EN12004 Class C2 TE S1

### PRODUCT INFORMATION

<b>Chemical Base</b>	Cement, mixed aggregates and special additives.
<b>Packaging</b>	20 kg Bag.
<b>Shelf Life</b>	12 months from date of manufacture when stored as directed.
<b>Storage Conditions</b>	This product must be stored in unopened bags clear of the ground in cool dry conditions and protected from excessive draught. The use of this product after the end of declared storage period may increase the risk of an allergic reaction.
<b>Appearance / Colour</b>	Grey, White Powder.

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	By volume: 1 Part water to 3 parts powder By Mass: 1 part water to 4 parts powder (5 L water to 20 kg bag powder)
<b>Consumption</b>	Approximately 4 kg/m <sup>2</sup> when applied as directed
<b>Pot Life</b>	4 hours dependant on temperature and site conditions.
<b>Curing Time</b>	24 hours dependant on temperature and site conditions.

## VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LIMITATIONS

- Always mix with clean fresh water and always prime/bond surfaces as directed.
- Never exceed the quantity of water stated. This will dramatically reduce strength and cause failure.
- Do not mix this tile adhesive when air or ground temperatures are forecast to be below 5 °C or above 35 °C during the first 24 hours after application.
- Do not apply to damp surfaces or when ambient temperature is persistently below 15 °C as this will increase drying process by several days.
- Do not mix more SikaCeram®-277 Flexible Standard Set than can be laid in approximately 4 hours and never try to reconstitute once the product has set.
- Floors must be prepared as directed and free of all obvious movement before tiling.
- Existing concrete sub floors must be a minimum of 4 weeks old before overlaying with this product.
- Cannot be used directly on to unsealed gypsum plaster, see "application Instructions" for priming instructions.
- Do not use on painted surfaces. Remove paint first.
- Do not use over metal.
- Do not walk on floors until adhesive has fully set (approximately 24 hours normally).
- On substrates where under floor heating is in place, switch off the heating for 24 hours before, and for 24 hours after, application.
- When used externally, do not apply when rain is imminent and protect from rain for at least 24 hours.
- Not recommended for application directly onto tongue and groove timber floorboards or floating plywood floors.
- Do not allow adhesive residues to set on the tile face.

As the manufacturer cannot know all the uses

their products may be put to, it is the user's responsibility to determine suitability for use. If in doubt, contact Technical Services Department.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

All surfaces must be clean, firm and free of dust, dirt, oil and loose flaking coatings. They must also be structurally sound and able to withstand the expected traffic loading. Worn or porous substrates should be primed with SikaBond® SBR+.

#### **Concrete/Scree/renders/unskimmed plaster-board/block work**

Surfaces such as tamped concrete and masonry block-work, that are rough or uneven, should be prepared with a suitable Sikafloor® Self Levelling compound and allowed to fully cure for at least 24-48 hours before application.

Allow fresh concrete etc to dry for at least 4 weeks before tiling.

Ensure floors are free from rising damp. Prime surfaces with SikaBond® SBR+ diluted 3 parts water to 1 part SBR Bond and allow to dry.

#### **Timber / Wood Based Floors**

Suitable for interior timber floors only. Ensure adequate ventilation beneath floors. Cover wooden floors with moisture resistant exterior grade (marine) plywood, which must be at least 12 mm thick. Secure with screws, not nails, at 300 mm centres. All boards must be level, showing no edge protrusions and be fixed in place with a 0.5 - 1 mm gap to avoid expansion stresses between boards and around perimeters.

Floors must be structurally sound and braced securely to support expected traffic loading. We recommend all wood-based surfaces to be dry and primed with a diluted mix of 1 part SikaBond® SBR+ and 3 parts clean water and allowed to dry. Alternatively use cement backer-board to cover wooden floors following manufacturers guidance then treat as concrete.

#### **Existing tiling**

Ensure tiles are securely bonded to wall or floor.

Roughen surface of glazed tiles with sander. Apply a bonding coat of neat SikaBond® SBR+. Apply mixed adhesive whilst bonding coat is still tacky.

### Gypsum plaster or Anhydrite

Prime with two coats of SikaBond® SBR+ before use on bare unsealed gypsum or anhydrite floor. The first coat with a 1:1 dilution, and the second coat neat.

### MIXING

SikaCeram®-277 Flexible Standard Set should be added to clean water. Mix approximately 1 part water to 3 parts powder by volume (20 kg powder to approximately 5 L of clean water) and mix to a slump free mortar. Never add further water once the adhesive has started to go off. This will destroy the bond strength. Always add powder to water

### APPLICATION

All surfaces should be clean, dry and free of dust and loose material before commencing. Refer to above for specific surface preparation.

Use a notched trowel to give a ribbed mortar bed on the substrate, to which the tiles should be firmly bedded with a twist and slide action to ensure full contact.

- Use a 3 mm x 3 mm notch at 6 mm centres for mosaics and thin flat backed wall tiling.
- Use a 5 mm x 5 mm notch at 10 mm centres for general wall tiling.
- Use 10 mm x 10 mm notch at 16 mm centres for general floor tiling.

SikaCeram®-277 Flexible Standard Set will remain workable for up to 4 hours depending on absorbency of substrate and temperature. Lightly touch the adhesive periodically and, if a skin has formed, remove the adhesive and apply a new layer. It is good practice to periodically remove a tile and check that the adhesive covers a minimum of 75 % of the tile.

All surplus adhesive must be removed whilst the adhesive is still wet using a dampened cloth or sponge, particularly along the grout lines.

Grouting may proceed as soon as the tile bed is sufficiently firm, which will be around 24 hours at room temperature. This period will, however, be extended in cold conditions.

When the adhesive is fully set, wall and floor joints can be grouted using SikaCeram® CleanGrout.

### Subfloor Heating

Fixing over a heated sub-floor requires adhesive to cure for at least 2 to 3 weeks before switching on the heating and gradually raising the set temperature by 2 °C per day until the floor is at its required operating temperature.

### CLEANING OF TOOLS

Clean tools in water after use. Wash hands immediately after using this product.

### 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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