

# PRODUCT DATA SHEET

## SikaCeram<sup>®</sup>-118

HIGH PERFORMANCE, LATEX CONTAINING, WATER RESISTANT,  
CEMENTITIOUS TILE ADHESIVE FOR THIN BED APPLICATION



### DESCRIPTION

SikaCeram<sup>®</sup>-118 is a high performance, C1 TE class, one-pack, polymer - latex containing, water resistant, premixed adhesive. Consisting of high resistance cements, selected silicon / quartz mineral charges and specific additives, used as thin bed tile adhesive for permanent fixing of ceramic tiles. Suitable for use in hot and tropical climatic conditions.

### USES

- Suitable for bonding of high absorption ceramic tiles, earthenware, extruded and refined porcelain tiles (only indoor)
- Industrial environment, wet areas (bathrooms, kitchens, balconies, terraces, etc.)
- Suitable for indoor floor and wall applications, as well as external floor applications.
- Suitable for moisture tolerant natural stone
- Suitable for application above concrete, mortar, bricks and plaster

### PRODUCT INFORMATION

<b>Composition</b>	Portland cement, selected aggregates and latex polymers	
<b>Packaging</b>	25 kg and 40 kg bag	
<b>Shelf life</b>	12 months minimum from date of production	
<b>Storage conditions</b>	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between 5 °C and 35 °C. Protect from direct sunlight, heat and moisture.	
<b>Appearance and colour</b>	Grey or white powder	
<b>Maximum grain size</b>	~0.5 mm	
<b>Volatile organic compound (VOC) content</b>	<1 g/l	(US EPA 24)

### CHARACTERISTICS / ADVANTAGES

- Very good adhesion
- Easy to mix and use
- Excellent workability and thixotropic consistency
- Water and weather resistant
- Single component system

### SUSTAINABILITY

- SikaCeram<sup>®</sup>-118 is certified according "Low Emitting Materials as per Al Sa'fat - Dubai Green Building Evaluation System" by Dubai Central Laboratory (DCL), certificate No. CL17020432
- California Department of Public Health (CDPH) Method - VOC emission test: PASS

### APPROVALS / CERTIFICATES

SikaCeram<sup>®</sup>-118 follows the main requirements of EN 12004 class C1 TE and ANSI 118.4 for shear strength.

## TECHNICAL INFORMATION

Tensile adhesion strength	<b>grey w/p = 0.22</b>	<b>Value</b>	<b>Requirements EN 12004-2)</b>
	<b>white w/p = 0.23</b>		
	Initial	≥ 0.7 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>
	After water immersion	≥ 0.5 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>
	After heat ageing	≥ 0.5 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>
Slip resistance	<b>Value</b>	<b>Requirements</b>	<b>EN 12004-1, class T</b>
	<b>w/p=0.22</b>		
	≤ 0.5 mm	≤ 0.5 mm	

## SYSTEM INFORMATION

System structure	In normal conditions on cement based substrate, no primer is required. However, for very high absorbent substrates (e.g. drywalls) or non-absorbent substrates, please contact Sika Technical Department for recommendation.
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## APPLICATION INFORMATION

Mixing ratio	5.5 to 5.75 L of water per 25 kg bag, 8.8 to 9.2 L of water per 40 kg bag						
Consumption	<p>Powder consumption and coverage depends on the surface profile and roughness of the substrate, size and reverse profile of the tiles and the placing technique (simple placing "floating" or back to back "buttering-floating").</p> <p>As a guide: For 1 mm thickness over 1 m<sup>2</sup> area approximately 1.4 kg of powder is required. For small sized tiles (side ≤30 cm), use small squared notch size trowel (4-6 mm) and progressively increases for medium tiles (side ≤45 cm, trowel 6-8mm) or large tiles (side ≤60 cm, trowel 8-10 mm)</p> <p>This figure is 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>						
Layer thickness	Min. 2 mm Max. 5 mm (locally up to 12 mm thickness possible, for leveling purpose)						
Ambient air temperature	+5 °C min. / +35 °C max.						
Substrate temperature	+5 °C min. / +35 °C max.						
Pot Life	~5 h (23 °C)						
Open Time	~20 min. (23 °C) (EN 12004-2)						
Adjustability time	~40 min. (23 °C)						
Applied product ready for use	<table><tr><td>Floor tiles can be grouted</td><td>After 24 - 36 h</td></tr><tr><td>Wall tiles can be grouted</td><td>After 4 - 6 h</td></tr><tr><td>Surface can be used after</td><td>After 14 d</td></tr></table> <p>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.</p>	Floor tiles can be grouted	After 24 - 36 h	Wall tiles can be grouted	After 4 - 6 h	Surface can be used after	After 14 d
Floor tiles can be grouted	After 24 - 36 h						
Wall tiles can be grouted	After 4 - 6 h						
Surface can be used after	After 14 d						

## 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.

## IMPORTANT CONSIDERATIONS

- Protect from adverse weather conditions, such as extremely high or low temperatures, rain, direct exposure to sun, wind, etc. for at least 24 hours from application.
- Avoid application in direct sunlight and/or strong wind / draughts.
- Make a test area prior to carrying out any work with natural stones.
- White version of tile adhesive is recommended for translucent natural stone tiles.
- It is not usually necessary to pre-dampen the tiles.
- For gypsum board substrate, primer needs to be applied, please contact Sika Technical Department.
- For application above waterproofing layers, please contact Sika Technical Department.

SikaCeram®-118 shall not be applied on the following cases:

- On metal surfaces and wood
- On old ceramic tiles
- On water immersed areas for example swimming pools.
- For stone wares and porcelain tiles in large size (side > 60 cm)
- For external walls

## 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

### 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®-118 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.
- For any repairs of the substrate materials of SikaRep® or Sika MonoTop® range should be used, applied at least 24 hours before laying the ceramic tiles.
- Identify cracks in the substrate and seal appropriately with Sikadur® epoxy resins.
- For applications in hot climates / environments, or on absorbent substrates, thoroughly pre-dampen (saturate) the substrate 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.
- The substrate must be perfectly flat, tight and free from easily removable parts, non-deformable and correctly aged.

## MIXING

- Mix a 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.
- Use a blender at 500 rpm maximum; do not mix at faster rate because of mechanical strength decay of the cured product.
- After blending, leave the product curing for 5 minutes in the mixing container and then briefly stir the mix prior to application.
- Always start with minimum recommended quantity of water (water/powder ratio), only if required, gradually add water to desired consistency. Do not exceed maximum allowed limit of water per bag weight.
- The obtained mix results should be very creamy, easily spreadable and thixotropic.
- Do not mix more material than can be used within 60 minutes.

## APPLICATION

SikaCeram®-118 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 already applied adhesive with water, as it may negatively affect its properties.

Note: For tiles > 900 cm<sup>2</sup> (30 x 30 cm), the double spreading ("buttering") technique is always recommended.

### Adhesive application

1. Apply sufficient adhesive to the prepared fixing surfaces with the notched trowel to the required bed thickness.
2. Adjust tiles if required.
3. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### CLEANING OF EQUIPMENT

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

## 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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ISO 9001: Sika UAE LLC,  
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Sika International Chemicals LLC  
ISO 14001: Sika UAE LLC,  
Sika Gulf B.S.C. (C),  
Sika Saudi Arabia Limited,  
Sika International Chemicals LLC,  
ISO 45001: Sika UAE LLC,  
Sika Gulf B.S.C. (C),  
Sika International Chemicals LLC.

All products are supplied under  
a management system certified  
to conform to the requirements  
of the quality, environmental  
and occupational health &  
safety standards: ISO 9001,  
ISO 14001 and ISO 45001.

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