

PRODUCT DATA SHEET

SikaCeram[®]-105 Porcelain KE

High performance polymer-modified, Tile Adhesive

DESCRIPTION

SikaCeram[®]-105 Porcelain KE is a polymer modified, cement based, improved adhesive for ceramic and porcelain tiles. It can be used in layers up to 5 mm thick and is suitable for all kind of tiles for inside and outside application for residential and medium load areas

USES

- Suitable for bonding of high absorption ceramic tiles, earthenware, extruded and refined porcelain tiles
- Suitable for bonding of large size tiles used in industrial environment, wet areas, swimming pools, facades
- Suitable for bathrooms, kitchens, balconies, terraces, etc
- Indoor and outdoor application over concrete, cement mortars, bricks and plaster
- For horizontal and vertical areas Suitable for moisture tolerant natural stone Suitable to tile directly on various Sika waterproofing products

CHARACTERISTICS / ADVANTAGES

- Very good adhesion
- Easy to use with excellent workability and thixotropic consistency
- Good bond strengths
- Non-Toxic
- No vertical slip, high slump resistance and grab
- Suitable for all types of Ceramic and Porcelain tiles

APPROVALS / CERTIFICATES

- C1T classified according to EN 12004
- ISO 13007-1:2014 Ceramic tiles - Grouts and adhesives

PRODUCT INFORMATION

Composition	High quality cementitious mortar modified with polymers.
Packaging	20 Kg bag
Appearance / Colour	Grey Powder
Shelf life	12 months minimum from date of production if stored properly in original unopened, sealed and undamaged packaging
Storage conditions	Undamaged original sealed packaging, in dry cool conditions
Density	Aprox. 1.8 Kg/L
Maximum grain size	0.4 mm

TECHNICAL INFORMATION

Tensile adhesion strength	> 0.5 N/mm ² (at 28 Days - EN 1348)
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APPLICATION INFORMATION

Mixing ratio	Add about 5.80 - 6.00 liters clean potable water to a 20 kg bag. Mix mechanically using a forced action mixer or slow speed drill (< 500 rpm) and mixing paddle for at least 3 minutes until a homogeneous mix, free of lumps is achieved. Do NOT use a normal free fall concrete mixer. Do not mix more material than can be used within the open time. Leave material to stand in mixing container until the majority of bubbles have dispersed (minimum 10 minutes). Then remix the material for 15 seconds – the product is now ready for use. If open time is exceeded or the adhesive dries prematurely, remove tiles and re-apply using fresh material
Consumption	The consumption depends on the surface profile and roughness of the substrate and the placing technique (simple placing or back-back-“buttering”). One 20 kg bag will cover approximately 5 – 7 m ²
Layer thickness	Minimum 2 mm Maximum 5 mm
Ambient air temperature	Minimum: +8°C Maximum: +40°C
Substrate temperature	Minimum: +8°C Maximum: +35°C
Open Time	25 Minutes
Curing time	Before jointing / grouting works - Min 8 hours Before opening to light foot traffic - Min 24 hours Before opening to full traffic - Min 14 days
Adjustability time	Once the tiles are set into the mortar, they can be adjusted for up to approximately 30 minutes (at +25°C)

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.

FURTHER INFORMATION

- Cementitious substrates must be strong enough for application of the tiles and the substrates should not continue to shrink after the installation of the tile.
- Do not exceed the recommended water dosage. Apply only to sound, prepared substrates.
- Do not exceed maximum layer thicknesses. If additional waterproofing underneath the tiles is required, then the following products can be used: Sika Top® Seal-107, Sika Cemflex, etc. Refer to the relevant product data sheet for more information.
- Protect freshly applied material from rapid drying due to heat, wind etc. and from contact with water or other liquids before the mortar has hardened

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, please refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety related data

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

- Substrates must be properly cured, structurally sound, free of any loose or friable particles, clean, dry and free of any contaminants such as dust, dirt, oil, grease, cement laitance or efflorescence.
- Depending on the substrate condition and contaminants to be removed from the surface, perform adequate preparation techniques, such as water-jet washing or blastcleaning, in order to remove all traces of any materials that could reduce the product's adhesion to the substrate.
- Any small surface defects and variations in level, profile, or around exposed aggregates for example, can be prefilled and levelled with an additional layer of SikaCeram®-105 Porcelain KE, to a maximum thickness of 10 mm, applied at least 24 h before the ceramic tiling is laid.
- For larger and thicker areas of surface reprofiling and making good, appropriate mortars from the Sika MonoTop® or Sikafloor® Level range should be used.
- Cracks in substrates must be identified and sealed appropriately e.g. with Sikadur epoxy resins.
- When laying tiles on non-absorbent or substrates with limited absorbency, such as existing ceramic tiles, painted surfaces etc., check to confirm that these surfaces are all firmly and securely bonded and stable, then use suitable degreasing/descaling

products to thoroughly and completely clean the surface.

- For applications in hot climates / environments and / or on absorbent substrates, thoroughly pre-dampen the surface immediately prior to the product application, but avoid any ponding / standing water on the surface, which must not be damp to touch and not with a dark-matt / wet surface appearance i.e. it must be saturated surface dry (SSD).
- For tiling in frequently damp or wet rooms, then a suitable Sika® waterproofing product / system should be applied before the tiling.

APPLICATION

APPLICATION METHOD / TOOLS

- Apply SikaCeram®-105 Porcelain KE at 1.5 - 5 mm thickness directly to the concrete substrate, using a notched trowel and spread the mortar evenly over the area to be tiled.
- Cover only an area that can be tiled within 15 - 30 minutes.
- Apply with 3mm “V”-notched trowels for small tiles(5cm by 5cm). 6mm “V”-notched trowels for normal tiles(Less than 200cm by 200 cm).
- Apply with 9mm square notched trowel for bigger tiles.
- And for tile larger than 300 cm by 300 cm or highest performance requirements, back-buttering technique for bedding should be used.
- Press tiles firmly into the mortar with a twisting action to ensure optimum adhesion.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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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Product Data Sheet

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