BUILDING TRUST

PRODUCT DATA SHEET

SikaCeram® FLX 24 T

High-performance cementitious tile adhesive

DESCRIPTION

SikaCeram® FLX 24 T is a one-part, high-performance, slip-resistant, deformable, and extended open-time multipurpose cementitious tile adhesive. It complies with the requirements of the C2TE class (EN 12004-1).

USES

- Suitable for installing various types of ceramic tiles, including large-format grès porcelain, granites, marbles, natural stones, glass mosaics, and press bricks.
- Ideal for walls and floors, both indoors and outdoors, including heated flooring systems.
- Allows tile-over-tile installation on existing surfaces.
- Suitable for high-performance applications such as swimming pools, industrial areas, and heavy-traffic floors.

FEATURES

- Easy to mix and apply with a creamy consistency
- Non-slip formulation
- Extended open time
- Strong adhesive properties
- Designed for high-performance applications

CERTIFICATES AND TEST REPORTS

- CE Marking and Declaration of Performance to EN 12004 - Adhesives for ceramic tiles

PRODUCT INFORMATION

Composition	Cementitious, polymer-modified mortar
Packaging	25 kg bag
Appearance and colour	Grey/White powder
Shelf life	12 months under proper storage conditions after production date
Storage conditions	Store in original, unopened, sealed and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight and freezing

TECHNICAL INFORMATION

Tensile adhesion strength	Initial: ≥ 1.00 N/mm² Water immersion: ≥ 1.00 N/mm² Heat ageing: ≥ 1.00 N/mm² Freeze-thaw cycles: ≥ 1.00 N/mm²	(EN 12004) (EN 12004) (EN 12004) (EN 12004)
Slip resistance	≤ 0.5 mm	(EN 12004)

APPLICATION INFORMATION

Mixing ratio	6.75 - 7.25 liters of water for 25 kg bag (Grey/White)
Consumption	Powder consumption and coverage depend on the surface profile and roughness of the substrate, the size and reverse profile of the tiles, and the placing technique (simple "floating" or "back-to-back buttering-floating"). **As a guide for solid bed application:** For 1 mm thickness over a 1 m² area, approximately 1 kg of powder is required. This figure is theoretical and does not account for additional material due to surface porosity, surface profile, level variations, wastage, or other factors. It is recommended to apply the product to a test area to calculate the exact consumption based on specific substrate conditions and the proposed application equipment. The above consumption indications refer to the installation of slightly profiled, non-vitrified, or vitrified tiles on a flat substrate, such as render or cement screed. For small-sized tiles (side ≤ 30 cm), use a small square-notch trowel (4–6 mm). Progressively increase the trowel size for medium tiles (side ≤ 45 cm, trowel 6–8 mm) or large tiles (side ≤ 60 cm, trowel 8–10 mm).
Layer thickness	max. 8 mm (Locally, up to 10 mm thickness is possible for small-area leveling purpose)
Ambient air temperature	min.: +5 °C, max.: +35 °C
Substrate temperature	min.: +5 °C, max.: +35 °C
Maturing time	~ 4 minutes
Pot Life	~ 120 minutes (at +23 °C, 50% RH)
Open Time	~ 30 minutes (at +23 °C, 50% RH)
Applied product ready for use	~ 24 hours (light foot traffic) ~ 7 days (for exposure to foot traffic)
Adjustability time	~ 20 minutes (at +23°C, 50% RH)

SYSTEM INFORMATION

System structure

For very absorbent substrate and in the following cases it is necessary to use a primer:

Substrate	Primer
Gypsum plaster or anhydrite screed	SikaCeram® Primer 300
Existing ceramic tiles or other non-absorbent surfaces	SikaCeram® Primer 303

Application and consumption details of the primers are given in the respective Product Data Sheet.

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

Cementitious substrates must be at least 28 days old.
Do not exceed the recommended water dosage. Apply only to sound, prepared substrate
Do not exceed the maximum layer thickness.
Plaster substrates must have a minimum thickness of 10 mm and a maximum moisture content of ≤ 0.5% CM for anhydrite or gypsum screed, and ≤ 4% CM for cement screed.
Protect from adverse weather conditions, such as high or low (< +5 °C) temperatures, rain, draft, direct exposure to sun, for at least 24 - 48 hours from application.

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

The substrate must be perfectly flat, solid, dimensionally stable, and free of any loose or friable particles. It should also be non-deformable, clean, dry, and free of contaminants such as dust, dirt, oil, grease, cement laitance, efflorescence, old coatings, or other surface treatments.
Depending on the substrate condition and the contaminants to be removed, employ appropriate preparation techniques, such as water-jet washing or blast cleaning, to eliminate all traces of materials that could reduce the product's adhesion to the substrate.
Any small surface defects, level variations, or exposed aggregate areas can be prefilled and leveled with an additional layer of SikaCeram® FLX 24 T. This layer should not exceed a maximum thickness of 5 mm and must be applied at least 24 hours before laying the ceramic tiles.
For larger and thicker areas requiring surface reprofiling, use appropriate mortars from the Sika MonoTop®, SikaEmaco®, or Sikafloor® Level range. Cracks in the substrate must be identified and sealed appropriately, e.g., using Sikadur® epoxy resins.
When laying tiles on non-absorbent substrates or those with limited absorbency, such as existing ceramic tiles or painted surfaces, check to confirm that these surfaces are firmly and securely bonded and stable. Then, use suitable degreasing/descaling products to thoroughly clean the surface. It is recommended to use the primer SikaCeram® Primer 303.
For applications in hot climates/environments and/or on absorbent substrates, thoroughly pre-dampen the surface immediately prior to product application, but avoid any ponding or standing water. The surface must not feel damp to the touch or have a dark-matt/wet appearance; it must instead be saturated surface-dry (SSD).
For tiling in frequently damp or wet rooms, a suitable Sika® waterproofing product/system should be applied before tiling.

MIXING

Fill a clean mixing bucket with the specified amount of water using a water gauge. Gradually add the SikaCeram® FLX 24 T powder to the water while stirring slowly. Mix thoroughly using a low-speed (~400–600 rpm) electric mixer for 4 minutes until a completely homogeneous and lump-free mix is achieved. After mixing, allow the material to stand and ‘mature’ for 4 minutes, then briefly stir again immediately prior to application. The resulting mix will have a very creamy consistency and be easy to apply and spread.

APPLICATION

SikaCeram® FLX 24 T is applied using a notched trowel. The amount of product used should be sufficient to ensure complete wetting of the backs of the tiles. Begin by applying a thin scratch coat to the substrate using the straight edge of a steel trowel. Then, use a notched trowel to spread and comb the mortar evenly over the fresh scratch coat, ensuring that the mortar bed is combed in a single direction whenever possible. Apply only as much mortar as can be covered with tiles within the specified open time, checking the open time by lightly touching the mortar with your fingertip. Place the tiles into the mortar bed using a twisting and sliding motion to ensure proper adhesion, and adjust them to their final position as needed. For larger tiles or situations with demanding requirements, such as exposure to heavy loads, the 'buttering' technique is recommended. This method involves applying mortar to both the substrate and the back of the tiles to create a stronger bond.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Once hardened or cured, the 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 recommenda-

tions. 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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