



BUILDING TRUST



PRODUCT DATA SHEET

DAVCOFLEX 669

C2TE single component polymer modified cement-based tile adhesive

DESCRIPTION

DAVCOFLEX 669 is a single component polymer modified cementitious tile adhesive for bonding homogeneous vitrified tiles and ceramic glazed tiles on both internal and external area.

USES

DAVCOFLEX 669 is suitable to bond the following type of tile:

- Homogeneous vitrified tiles, ceramic glazed tiles
- All type of low and high absorption tiles

DAVCOFLEX 669 can be used on substrates including:

- Concrete
- Cement-sand screed & render
- Light weight concrete blocks (to be primed with Davco Bonding Agent)
- Fibre-cement boards (seek advice from manufacturer)

PRODUCT INFORMATION

Packaging	25 kg bag
Appearance / Colour	Grey powder
Shelf life	6 months from date of production
Storage conditions	Store properly in dry conditions, in undamaged and unopened, original sealed packaging. Keep away from direct sunlight, rain, water and moisture.

TECHNICAL INFORMATION

Tensile adhesion strength	Standard Condition	$\geq 1.0 \text{ N/mm}^2$	(EN 12004-2:2017, 8.3)
	Water Immersion	$\geq 1.0 \text{ N/mm}^2$	
	Heat Ageing	$\geq 1.0 \text{ N/mm}^2$	
Slip resistance	$\leq 0.5 \text{ mm}$		(EN 12004-2:2017, 8.2)

APPLICATION INFORMATION

Mixing ratio	5.75–6.50 L of water per 25 kg bag													
Consumption	This depends on the level, profile and surface roughness of the substrate, the size of the tiles and the technique of placing (simple placing or "back"-buttering). As a guide, in kilogram of powder per m ² on flat surfaces: <table border="1"><thead><tr><th>Tiles size</th><th>Coverage</th><th>Trowel size</th></tr></thead><tbody><tr><td>Mosaics and small tiles</td><td>~2.0–3.0 kg/m²</td><td>3 mm x 3 mm notched trowel</td></tr><tr><td>Normal size tiles (20 cm x 20 cm)</td><td>~5.0–5.5 kg/m²</td><td>6 mm x 6 mm notched trowel</td></tr><tr><td>Large size tiles up to 3 600 cm² (internal floors) and 2 100 cm² (external floors)</td><td>~10.0–11.0 kg/m²</td><td>12 mm x 12 mm notched trowel</td></tr></tbody></table> The consumption above may only serve as a guide. It is highly recommended to carry-out trials on site to determine the actual coverage.		Tiles size	Coverage	Trowel size	Mosaics and small tiles	~2.0–3.0 kg/m ²	3 mm x 3 mm notched trowel	Normal size tiles (20 cm x 20 cm)	~5.0–5.5 kg/m ²	6 mm x 6 mm notched trowel	Large size tiles up to 3 600 cm ² (internal floors) and 2 100 cm ² (external floors)	~10.0–11.0 kg/m ²	12 mm x 12 mm notched trowel
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Open Time	≥ 0.5 N/mm ² at 30 minutes (at 23 °C)	(EN 12004–2:2017, 8.1)												
	Under unfavourable conditions (direct sun, high ambient temperature and strong wind), the open time may be shorter.													
Adjustability time	~15 minutes at 25 °C													
Curing time	24 hours													

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- All surfaces must be structurally sound, dry, clean and free from movement, oil, grease, wax, curing compound and any other loose or contaminating materials.
- Dusty concrete or masonry should be swept clean and dampened with water prior to the application of the adhesive.
- Weak concrete and/or cement laitance must be removed. Repairs to the substrate, filling of blowholes / voids, etc. must be carried out using SikaTop® or Sika® MonoTop® range of products
- Painted surface must be scabbled / abraded to expose the original substrate. Newly rendered / screeded surface must be thoroughly cleaned prior to tiling and have a wood float finish.
- Old rendered / screeded surface must be thoroughly cleaned prior to tiling and have a wood float finish.
- New concrete must be allowed to cure for at least 1 month and have a wood float finish. Steel trowel finished concrete must be mechanically abraded prior to tiling.
- Old concrete surface must be thoroughly cleaned prior to tiling. Make sure all release agents are removed from concrete surfaces, especially on tilt-up slabs.
- Screeds should be allowed to dry out as slowly as practicable after curing to reduce the risk of curling. Cement-sand and fine concrete levelling screeds should be cured for at least 7 days and be subjected to continuous air drying after curing for at least 2 weeks before the tiles are laid. Please refer to BS

5385 or MS 1294.

- To ensure the screed/render level is plumb to achieve optimum adhesive bed thickness.
- Certain non-absorbent surfaces can be easily prepared for tiling by using Davco Bonding Agent. Please refer to Davco Bonding Agent product data sheet for further details.
- Wash and remove the release powders at the back of porcelain tiles.

MIXING

Pour clean water into a mixing container. Then, slowly add DAVCOFLEX 669 while mixing. Do not Dump! Mix continuously in a circular motion using a low-speed mechanical mixer until a lump-free, creamy consistency and uniform paste is achieved. Allow the mix to stand for 5 minutes and re-mix prior to use.

APPLICATION

DAVCOFLEX 669 is spread onto the substrate using a proper and suitable notched trowel. The choice of trowel should be governed by the size of the tiles, depth of knobs, grooves or ridges on the back of the tiles and the evenness of the substrate.

Use the flat side of the notched trowel to spread the mix onto the receiving surface at approximately 1 m² at a time. Then, use the notched side of the trowel to apply the required amount of the mix in one direction. Press the tile in a perpendicular motion and tapped into position to ensure positive contact with the adhesive and adjust within 30 minutes.

For tile with grooves or ridges, it is necessary to skim a layer of adhesive / butter coat the back of the tiles.

This is to ensure adequate material and good bonding between the adhesive and tile. Ensure that the adhesive is wet when the tiles are laid. Do not allow the adhesive to skin-over prior to tiling. Should skinning occur, break the skin by re-trowelling the adhesive in the opposite direction. Do not spread more than 1 m² at any one time. Fix tiles within 15 minutes of applying the adhesive and check the contact by occasionally lifting the tiles. Ensure there are no voids under the tiles and the edges between the tiles are even (lippage) with a consistent joint width.

For external areas, protect from direct sunlight and rain by means of a shelter. It is the user's responsibility to determine the condition and suitability of all surfaces prior to application.

Grouting

Tile joint grouting should preferably be carried-out at least 24 hours after completion of tiling or until the adhesive has set and dry sufficiently. Setting may be delayed on dense or impervious surface.

CLEANING OF EQUIPMENT

Clean all tools and application equipments with clean water immediately after use. Hardened or cured material can only be removed mechanically.

IMPORTANT CONSIDERATIONS

- Results shown here are based on laboratory test. Actual field performance will depend on the type of tile/stone used, installation methods and site conditions.
- For area with high movement or vibration, C2 type of tile adhesive with additional S1 or S2 properties is recommended to absorb the stresses between the tile and substrate with no loss or minimum loss of adhesion.
- Expansion joints coinciding with joints in the substrate should be incorporated at the design stage at a maximum space of 5 metres.
- Movement joints must be incorporated where necessary in accordance with the general principles in BS 5385: Part 1-4.
- Due to ambient condition, the skin-over of the adhesive will occur after 5–10 minutes. Therefore special attention have to be taken, such as, applying the adhesive in a small area that can be covered with tiles within this time frame.
- Skin-over can be checked by placing the tip of your index finger lightly to the adhesive bed surface. If the adhesive does not stick to your finger, skin-over has already occurred. To break the skin, re-trowel in the opposite direction. Fix stone, ceramic glazed tiles,

ceramic vitrified tiles, mosaic within 15 minutes of applying the adhesive and check coverage by occasionally lifting the stone / ceramic glazed tiles / ceramic vitrified tiles / mosaic.

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.

LOCAL RESTRICTIONS

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

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.

Sika Kimia Sdn. Bhd.

Lot 689, Nilai Industrial Estate, 71800
Nilai
Negeri Sembilan D.K., Malaysia
Phone: +606-7991762
Fax: +606-7991980
e-mail: info@my.sika.com



ProductData Sheet

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