



BUILDING TRUST



PRODUCT DATA SHEET

Davcoflex 777

C2TE one component polymer modified cementitious tile adhesive

DESCRIPTION

Davcoflex 777 is a single component polymer modified cement-based tile adhesive specially designed and formulated for large format fully vitrified tiles and homogeneous porcelain tiles.

USES

Davcoflex 777 is suitable to bond the following type of tiles:

- Ceramic tiles, vitrified tiles, homogeneous porcelain tiles, marble and granites
- Quarry and natural stone surfaces
- Large format tiles

Davcoflex 777 can be used on substrates such as:

- Concrete, cement-sand screed & render
- Light weight concrete blocks (to be primed with Davco Bonding Agent)
- Plastered walls

PRODUCT INFORMATION

Packaging	20 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)
	Heat ageing	$\geq 1.0 \text{ N/mm}^2$	
	Water immersion	$\geq 1.0 \text{ N/mm}^2$	
Slip resistance	$\leq 0.5 \text{ mm}$	(EN 12004-2: 2017, 8.2)	

APPLICATION INFORMATION

Product Data Sheet
Davcoflex 777
January 2021, Version 01.01
021710102000000601

Mixing ratio	4.8–5.6 L of water per 20 kg bag													
Consumption	<p>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).</p> <p>As a guide, in kilogram of powder per m² on flat surfaces:</p> <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> <p>The consumption above may only serve as a guide. It is highly recommended to carry-out trials on site to determine the actual coverage.</p>		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
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												
Open Time	≥ 0.5 N/mm ² at 30 minutes	(EN 12004-2: 2017, 8.1)												
	Open time is approximately 30 minutes under normal temperature and humidity conditions. Under unfavourable conditions, the open time might be shorter.													
Adjustability time	Once the tiles are placed onto the adhesive, they should be adjusted within the open time limit, ~30 minutes (at +20 °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.

IMPORTANT CONSIDERATIONS

- For areas with high movement or vibration, C2 type of tile adhesive with additional S1 or S2 properties is recommended to absorb vibration, shrinkage and deflection of substrates.
- Expansion joints coinciding with joints in the substrate should be incorporated at the design stage at a maximum of 5 m spacing and must be tiled over.
- Movement joints must be incorporated where necessary in accordance with the general principles stated in BS 5385: Part 1-4.
- In extreme ambient conditions, the skin-over of the adhesive may occur after 5–10 minutes. Therefore special precaution have to be taken, such as applying the adhesive in small areas that can be covered with tiles within this time limit.
- 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 or lay ceramic glazed tiles, ceramic vitrified tiles, stones and mosaic within 15 minutes of applying the adhesive and check the coverage by occasionally lifting the tiles.

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.

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 adhesive.

Weak concrete and/or cement laitance must be removed. Repairs to the substrate, filling of blowholes / voids, etc. must be carried out using appropriate repair material from the SikaTop®, Sikafloor®, SikaWall® 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 tilling and have a wood float finish.

Old rendered/screeded surface must be thoroughly cleaned prior to tilling 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 tilling.

Old concrete surface must be thoroughly cleaned prior to tilling. 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 tiles are laid. Please refer to BS 5385 or MS 1294.

Ensure screed/render level is plumb to achieve optimum adhesive bed thickness.

Non-absorbent surfaces can be easily prepared for tiling using Davco Bonding Agent. Refer to Davco Bonding Agent product data sheet for more details. Release powders at back of porcelain tiles must be removed by washing with clean water.

MIXING

Pour clean water into a mixing container. Then, slowly add Davcoflex 777 while mixing 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. Re-mix for another 15 to 30 seconds. Davcoflex 777 is ready to be applied.

APPLICATION

Davcoflex 777 is spread onto the substrate using a proper and suitable notched trowel. The choice of trowel shall 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 adhesive onto the receiving surface at approximately 1 m². Then, use the notched side of the trowel to determine the required amount of adhesive in one direction.

Press the tile in a perpendicular motion and tapped in to position to ensure full contact with the adhesive.

Adjust within the open time limit, ~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 good bonding and complete coverage between the adhesive and tile so that proper adhesion and support takes place.

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 of the adhesive at any one time. Fix the tiles within 15 minutes of applying the adhesive and check the contact by occasionally lifting the tiles.

Ensure there are no excessive voids under the tiles. At

the perimeters, leave adequate wall and floor joints. For external tiling, 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 equipment with clean water immediately after use. Hardened or cured material can only be removed mechanically.

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.

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
e-mail: info@my.sika.com
Website: www.sika.com.my



Product Data Sheet

Davcoflex 777

January 2021, Version 01.01
02171010200000601

Davcoflex777-en-MYDAVCO-(01-2021)-1-1.pdf

