PRODUCTDATA SHEET

Davco SAC 28 ECO

C2TE S1 environmentally friendly single component, good bonding & deformable tile adhesive

DESCRIPTION

Davco SAC 28 ECO is a premium grade, single component polymer modified flexible cement-based tile adhesive, supplied ready to use with the addition of water.

USES

Davco SAC 28 ECO is suitable for tiling of large format fully vitrified tiles, marble & granite.
Davco SAC 28 ECO can be used on:

- Cement-sand screed & render
- Existing ceramic, quarry and natural stone surfaces.
- Flexible building boards eg. fibre cement sheet and plasterboard
- Light weight concrete blocks (to be primed with Davco Bonding Agent)
- Fibre-cement boards (to be primed with Davco Bonding Agent)

CHARACTERISTICS / ADVANTAGES

- Environmentally friendly
- High bonding performance and deformability
- Build-in flexibility to absorb vibration, shrinkage and deflection of substrates
- Enhanced adhesion of low-porosity tiles to dense impervious substrates
- No mixing error – just add water

APPROVALS / CERTIFICATES

- Davco SAC 28 ECO is classified as C2TE S1 conforming with EN 12004, without testing for tensile adhesion properties in freeze-thaw condition.
  Davco SAC 28 ECO is a cementitious adhesive (C) with improved adhesion (2), slip resistance (T), extended open time (E), and deformable (S1).
- Singapore Green Label: 022-066-0362 "Eco-Friendly Building Material"

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.

TECHNICAL INFORMATION

Tensile adhesion strength	Standard condition	≥ 1.0 N/mm²	(EN 12004–2:2017, 8.3)
	Water immersion	≥ 1.0 N/mm²	
	Heat aging	≥ 1.0 N/mm²	
Transverse deformation	2.5 mm ≤ S1 Classification ≤ 5.0 mm, Classified as S1		(EN 12004–2:2017, 8.6)

Slip resistance	≤ 0.5 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 m² on flat surfaces:

Tiles size	Coverage	Trowel size
Mosaics and small tiles	~1.5–2.5 kg/m²	3 mm x 3 mm notched trowel
Normal size tiles (20 cm x 20 cm)	~3.0–4.0 kg/m²	6 mm x 6 mm notched trowel
Large size tiles up to 3 600 cm² (internal floors) and 2 100 cm² (external floors)	~7.0–8.0 kg/m²	12 mm x 12 mm notched trowel

The consumption above may only serve as a guide. It is highly recommended to carry-out trials on site to determine the actual coverage.

Open Time	≥ 0.5 N/mm² 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 at 25 °C

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, filing of blowholes / voids, etc. must be carried out using appropriate products from the SikaTop® or Sika® MonoTop® range of material.
- 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 the tiles are laid. Please refer to BS 5385 or MS 1294.
- To ensure screed/render level is plumb to achieve optimum adhesive bed thickness.
- Certain non-absorbent surfaces can be easily prepared for tiling using Davco Bonding Agent. Refer to Davco Bonding Agent data sheet for further details and suitability.
- Wash and remove the release powders at the back of porcelain tiles.

MIXING

- Pour clean water into a mixing container. Then, slowly add Davco SAC 28 ECO. 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

Davco SAC 28 ECO 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 good bonding and adequate coverage 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 tilling. 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 tiles. Ensure there are no voids under the tiles and the edges between the tiles are even (lippage) with a consistent tile joints 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.
- Due to ambient conditions, the skin-over of the adhesive will occur after 5–10 minutes. Therefore, special attention has to be taken to apply 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 the 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.

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