

# **MORTAFLEX ECO**

## **FLEXIBLE LATEX ADDITIVE**





**DESCRIPTION** Davco Mortaflex ECO is a flexible synthetic latex additive designed for use in preparation of high strength, thick and thin set mortars. Ideal for installing ceramic tiles, marble, slate and naturad stone onto concrete, cement render or rendered brickwork surfaces. Davco Mortaflex ECO is approved by the Eco-labelling authority in Singapore as a sustainable building material.

#### USES

Use with Davco Tilebond ECO as a gauging liquid to produce high performance thin set mortar for installing marbles, granites or homogeneous tiles in heavy traffic areas.

Use with Davco TTB ECO, Davco Dribond Marble ECO to produce 2-part systems for installing heavy marbles and granites.

Use as an additive to improve strength and water resistance in ordinary portland cement and sand render or screed.

- ADVANTAGES

  High shear bond strength reduced shrinkage.
- High bond strength & cohesive strength.
- Resistant to dilute acids and alkalis.
- Non corrosive, non toxic, non-flammable.
- Improved water resistance.
- Not damaged by freezing after placement.

### Technical Performance Davco Mortaflex ECO when used in Davco Dribond Marble ECO PROPERTIES

Toxicity Test SS375 : 2015

Density

Water Absorption (ANSI 118.4)

Tensile Adhesion Bond Strength BS EN 1348 : 2007 - 28 days

- after water immersion - after heat ageing

Open Time @ 25°C

Transverse Deformation @ 28 days BS EN 12002 : 2002

Hardness (ASTM D-2240) 28 days

Service Temperature Service Rating - ASTM C627 - TCA Rating

Flame Contributing Factor

Smoke Contributing Factor

Shock & Impact Resistance

Pot Life

THIN BEDDING/ GROUTING Passed 1,500kg/m<sup>2</sup>

< 4.0%

≥ 1.0 N/mm<sup>2</sup> ≥ 1.0 N/mm<sup>2</sup> ≥ 1.0 N/mm<sup>2</sup>

Up to 20 minutes 2.5 (minimum)

75 Up to 150°C Cycles 1-14 Extra Heavy Zero

Zero

Excellent

Approx. 1 hour

Specifications are subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

#### SURFACE PREPARATION

Generally, all surfaces should be structually sound, dry, clean and free from movement, oil, grease, wax and other contaminants.

ainted surfaces must be scabbled to expose at least 75% of clean surface. Expansion joints coinciding with joints in the substrate should be incorporated at the design stage.



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#### APPLICATION

Thin Bedding and Grouting of Tiles.

Prepacked / Dry Set Mortar Mix 25 kg of Davco Ťilebond ECO 7.50 litres Davco Mortaflex ECO

Coverage (using 6mm x 6mm Notch Trowel) Approx. 3.5kg/m<sup>2</sup>

#### Splash Coat Mix

- 1 part portland cement

- 1 part sand (0.15 - 1mm)

- 1 part neat Davco Mortaflex ECO

Pour the Davco Mortaflex ECO into a clean container, add powder and mix till lump free. i.e. always add powder to liquid.

Apply mixture with a 6mm x 6mm notched trowel. For thicker beds use 10mm x 10mm notched trowel. Press tiles into bed to ensure proper bond. Obtaining full contact, rib-backed tiles may require back buttering a layer of adhesive on back of each tile prior to placing on the mortar bed.

Grouting of tiles shall only commence 24 hours after the tiling operations. Refer Davco Sanitized® Coloured Grout ECO (CFG) datasheet for further instruction

#### RENDER AND SCREED TO RECEIVE TILES

To fix render or tiles bedding over off-form concrete or tiled / painted surface. Dampen the surface then apply on splash coat using a small broom or a brush.

**RENDER / SCREED MIX** 

- 50 kg OPC
- 150 kg washed sand (0.2 2mm)
- 13 litres Davco Mortaflex ECO
- 13 litres Water

Coverage: approx. 9.5m<sup>2</sup> at 13mm thick.

Sand and cement should first be blended and dilute Davco Mortaflex ECO accordingly in a separate clean container. The required amount of liquid mix is then added to the preblended screed / render and mixed to a proper trowelling consistency: smooth plastic, not sloppy.

Renders in excess of 13mm thick should be applied in 2 layers as per BS 5358 Part 2.

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### Technical Performance of Davco Mortaflex ECO when used in Render or Screed to receive tiles

Density	2,100 kg/m <sup>2</sup>
Water Absorption (ANSI 118.4)	< 4.0%
Compressive Strength (ANSI 118.4, ASTM C109-88)	275 kg/cm²
Tensile Strength (ANSI 118.4)	25 kg/cm²
Hardness (ASTM D-2240) 28 days	75
Service Temperature	Up to 150°C
Service Rating – ASTM C627 – TCA Rating	Cycles 1 – 14 Extra Heavy
Flame Contributing Factor	Zero
Smoke Contributing Factor	Zero
Shock & Impact Resistance	Excellent
Coefficient of Expansion	Same as concrete

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#### CLEANING

Excess Davco Mortaflex ECO and tools can be cleaned up with warm water while the Davco Mortaflex ĖCO is still wet.

#### PACKAGING

208 litres drum, 20 litres pail.

#### SHELF LIFE

Shelf life of approximately 12 months in unopened containers when stored in a cool dry elevated place.

#### HEALTH & SAFETY

Protective gloves and goggles should be used when handling this product. In case of eye splashes or excessive skin contact, thoroughly flush with water. If any ill effects should occur, seek medical attention promptly. Refer to safety data sheet.

#### Disclaimer

The use of this product is beyond the manufacturer's control and liability is restricted to the replacement of material proven faulty. The manufacturer is not responsible for any loss or damage arising from incorrect usage. Specifications are subjected to changes without prior notice. Before application, customers and users are requested to check that they have the latest version of this document from our website www.sika.com.sg

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Updated Oct 2022