



# GROUT 180 ECO

## NON-SHRINKING REPAIR MORTAR - HIGH FLUIDITY GROUT



ECO FRIENDLY



HIGH STRENGTH



NON SHRINK

### DESCRIPTION

Davco Grout 180 ECO is a cementitious non-shrink grout which is specially formulated to have a lower embodied carbon foot print and is approved by the Singapore Eco-labelling authority as a sustainable building material. Davco Grout 180 ECO has high fluidity and is ideal for pressure grouting, requiring only on-site addition of water to provide a non-shrink free flowing grout.

### USES

Davco Grout 180 ECO can be used in all grouting situation where shrinkage is undesirable. Primary uses are: bedding, filling and grouting applications where complete filling of voids with a high strength non-shrink material is required. It can be used for under-plate grouting, repairs to precast concrete, bedding bearing plates, anchor bolt fixing, cable grouting and crane rail assembly.

### ADVANTAGES

- Davco Grout 180 ECO is an environmentally friendly product.
- It is non gaseous, free of bleeding, settlement and shrinkage.
- Consistent good performance as all ingredients are premixed in the factory.
- High early and ultimate strength.
- Eliminates shrinkage in both plastic and hardened phases.
- Increased strength when fully restrained.

### TECHNICAL DATA

Appearance	: Grey powder
Flow Consistency ASTM C939:2016	: 10 - 30 sec
Filler	: Graded Sand
Yield per bag	: Around 0.013m <sup>3</sup>
Shrinkage - ASTM C940 ASTM C940:2016	: 0% @ 28 days
Expansion - ASTM C940 ASTM C940:2016	: ≤ 0.4% @ 3 days
Compressive Strength ASTM C942 : 2015	: ≥ 40 N/mm <sup>2</sup>
Setting Time ASTM C953 : 2010	:
Initial	: ≥ 1 hr
Final	: ≤ 10 hrs
Flexural Strength BS EN 1015-11:1999	: > 9 N/mm <sup>2</sup>
Volume Change ASTM C821:2001a (2005)	: 0-3%
Bleeding ASTM C940:2016	: 0
Bond Strength @ 28 days BS EN 12615:1999	: >1.5N/mm <sup>2</sup>
Wet Density	: Approx. 2000 kg/m <sup>3</sup>
Pot life	: 30 to 45 min depend on weather condition

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.



BUILDING TRUST





# GROUT 180 ECO

## SURFACE PREPARATION

All surfaces must be cleaned and free of oil, dust, paint, curing compound etc. Thoroughly damp all surfaces before starting and keep in a moist condition during placing.

## MIXING

Damp the grout mixer with water prior to mixing the initial batch of Davco Grout 180 ECO. Ensure that the mixer is free of standing water. Add the pre-measured quantity of water. Slowly add the Davco Grout 180 ECO, mixing continuously for at least five minutes until a homogeneous consistent grout is achieved. Use 4.0 litres - 5.0 litres water per bag (for flowable consistency) or 3.2 litres - 3.5 litres water per bag (for plastic consistency).

## APPLICATION

Underplate:

Check that the formwork is sealed against grout leakage and that a minimum hydrostatic head of 100mm can be maintained. Ensure sufficient material is available to complete the work and obtain a continuous fill. Pour from one side only to avoid air entrapment, keeping a head on the grout to promote flow. DO NOT vibrate, but rods, straps and chains can be used to aid complete filling.

Preplaced Aggregate Grout:

Grout should be pumped or poured into place. Compressive strength development and ultimate strength of the concrete are reduced slightly compared with flowing grouts.

## Grouting Large Volumes:

For grouting thickness greater than 75mm, the addition of clean well-graded 10mm aggregates is recommended to reduce temperature rise. Use a 2.5 part of grout by weight to maximum of one part aggregate. Conventional concrete pan mixers and pumps can be used for mixing and placement.

Typical compressive strengths for a 2.5 : 1 mix of Davco Grout 180 ECO and 10mm gravel at flowing consistency are:

1 Day 15 N/mm<sup>2</sup>  
7 Days 30 N/mm<sup>2</sup>  
28 Days 45 N/mm<sup>2</sup>

## Pumping

Davco Grout 180 ECO may be placed using piston, ram or diaphragm type grout pumps fitted with ball valves.

## Curing

Immediately after finishing, exposed area should be thoroughly cured with water or curing compound.

## PACKAGING

Davco Grout 180 ECO is available in 25 kg bag.

## SHELF LIFE

Shelf life of up to 12 months from the date of manufacture. Store in a dry place free from moisture contact.

## HEALTH & SAFETY

Davco Grout 180 ECO is non-hazardous. In case of eye contact, wash with plenty of water. If irritation persists, seek immediate medical attention. 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](http://www.sika.com.sg)

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