



# HIGH GRADE GROUT ECO

## NON SHRINK GROUT FOR PRESSURE GROUTING



ECO FRIENDLY



HIGH STRENGTH



NON SHRINK

### DESCRIPTION

Davco High Grade Grout ECO is an environmentally friendly, cementitious high strength grout with non-shrink properties. It has a lower embodied carbon footprint, and classifies as a sustainable building material under the Singapore Green Label Scheme. Davco High Grade Grout ECO has high fluidity and is ideal for pressure grouting. It is easy to use and needs only on-site addition of water to provide a non-shrink free-flowing grout with good performance. It is carefully premixed in factory to ensure consistent product quality on-site.

### USES

Use Davco High Grade Grout ECO in applications needing high compressive strength and where shrinkage is undesirable.

Primary uses are for bedding, filling and grouting applications needing high strength, and non-shrink material. It can be use for under plate grouting, repairs to precast concrete, bedding bearing plates, anchor bolt fixing, cable grouting and crane rail assembly.

### ADVANTAGES

- Non gaseous grout, free of bleeding, settlement and shrinkage.
- Consistent good performance as factory premixes all ingredients.
- No shrinkage in both plastic and hardened phases.
- Increased strength when fully restrained.
- Superior workability.

### TECHNICAL DATA

Appearance	: Grey powder
Water Required	: 3.9 - 4.75 litres / 25 kg bag for flowable consistency : 2.7 - 3.5 litres / 25 kg bag for plastic consistency
Flow Consistency ASTM C939 : 2016a	: 10 - 30 sec
Filler	: Graded Sand
Yield per bag	: Around 0.012m <sup>3</sup>
Shrinkage ASTM C940:2016	: 0% @ 28 days
Expansion ASTM C940:2016	: ≤ 0.4% @ 3 days
Compressive Strength ASTM C942 : 2015	: ≥70 N/mm <sup>2</sup> @ 28 days
Setting Time ASTM C953 : 2010	
- Initial	: ≥ 1 hr
- Final	: ≤ 10 hours
Pot life	: 30 to 45 min depend on weather condition
Holding Pressure	: 10 psi / min or site requirement

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





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## SURFACE PREPARATION

Clean off oil, dust, dirt, paint, curing compound and thoroughly damp the surface before application.

## MIXING

Dampen the electric mixer blades with water before mixing the first batch of Davco High Grade Grout ECO. Ensure the mixing pail is free of standing water.

Recommended amount of water:  
Flowable consistency: 3.9 to 4.75 litres  
Plastic consistency: 2.7 to 3.5 litres

Measure the recommended amount of water for the 25kg bag of product. To get flowable consistency, first pour 80% of the required water into the mixing pail and slowly add powder to the water while mixing continuously. Add more amount of water and continue to mix until the desired consistency is achieved and then discard balance water. Mix for 3 to 5 minutes to achieve a homogeneous consistent grout.

To achieve plastic consistency, first pour 60% of the required water into the mixing pail and slowly add powder to water while mixing continuously. Continue to add more amount of water while mixing, to get the desired consistency. Discard balance water.

## APPLICATION

Underplate:

Seal the formwork to get a minimum hydrostatic head of 100mm. Ensure enough material is available to complete the work. Keep a continuous fill, pouring from one side to avoid air entrapment, and keep a head on the grout to promote flow. Do not vibrate, instead use rods, straps and chains to aid filling.

Preplaced Aggregate Grout:

Pump or pour grout into place. The concrete compressive strength will be slightly lower when compared to flowing grouts.

## APPLICATION (CON'T)

Grouting Large Volumes:

For grouting thickness greater than 75mm, mix a maximum of 15kg well-graded 10mm aggregate to one bag of grout to reduce temperature rise. Use conventional concrete pan mixers and pumps for mixing and placement.

Semi-precast Plastic Grout Applications:

For applications needing pasty grout, use about 2.7 to 3.5 litres of water to 25kg bag of grout.

When placing grout over a large area, it is important to maintain a continuous flow throughout. Work sequence must be properly organised to ensure an uninterrupted flow.

## Pumping

Use piston, ram or diaphragm type grout pumps fitted with ball valves to place Davco High Grade Grout ECO.

## Curing

Thoroughly cure all exposed area with water, or curing compound, immediately after finishing.

## PACKAGING

Davco High Grade Grout ECO is available in 25 kg bag.

## SHELF LIFE

When stored in a cool and dry place, product shelf life is up to 12 months from the date of manufacture.

## HEALTH & SAFETY

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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