

PRODUCT DATA SHEET

SikaGrout®-180

(formerly Davco® Grout 180 ECO)

HIGH FLUIDITY NON-SHRINK GROUT



DESCRIPTION

SikaGrout®-180 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. SikaGrout®-180 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

SikaGrout®-180 can be used in all grouting situation where shrinkage is undesirable.

Primary uses are:

- bedding
- filling & grouting applications
- 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
- crane rail assembly

CHARACTERISTICS / ADVANTAGES

- It is free of bleeding and settlement
- Consistently good performance as all ingredients are premixed in the factory.
- Compensates shrinkage during curing thus eliminates cracking
- Increased strength when restrained

APPROVALS / STANDARDS

Singapore Green Building Product (Leader) Cert. No. SGBP 3617

PRODUCT INFORMATION

Reinforcing Material	Graded Sand
Packaging	25 kg/bag
Appearance / Colour	Grey Powder
Shelf Life	12 months from the date of production
Storage Conditions	Store properly in original, unopened and undamaged sealed packaging in dry conditions. Keep away from direct sunlight and frost.
Density	~ 2,000 ± 100 kg/m ³ (Wet)

TECHNICAL INFORMATION

Compressive Strength	≥ 40 N/mm ²	(ASTM C942 : 2015)
Tensile Strength in Flexure	> 9 N/mm ²	(BS EN 1015-11:1999)
Shrinkage	0 % at 28 days	(ASTM C940:2016)
Expansion	≤ 0.4 % at 3 days	(ASTM C940:2016)
Flow Rate	10 - 30 sec	(ASTM C939:2016)
Bleeding	0	(ASTM C940:2016)

APPLICATION INFORMATION

Mixing Ratio	Flowable consistency	4.0 ltr - 5.0 ltr water per bag
	Plastic consistency	3.2 ltr - 3.5 ltr water per bag
Yield	~ 0.013 m ³	
Pot Life	30 to 45 min	
Initial Set Time	≥ 1 hr	(ASTM C953 : 2010)
Final Set Time	≤ 10 hrs	(ASTM C953 : 2010)

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.

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

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 SikaGrout®-180. Ensure that the mixer is free of standing water. Add the premeasured quantity of water. Slowly add the SikaGrout®-180, mixing continuously for at least five minutes until a homogeneous consistent grout is achieved.

APPLICATION

Underplate

Check that the formwork is sealed against grout leakage and that a minimum hydrostatic head of 100 mm 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.

APPLICATION METHOD / TOOLS

Grouting Large Volumes

For grouting thickness greater than 50 mm, the addition of clean well-graded aggregates (e.g. 10mm) is recommended to reduce temperature rise. Conventional concrete pan mixers and pumps can be used for mixing and placement. Trials using different ratios of aggregates and SikaGrout®-180 should be conducted on site to determine the appropriate amount and size of aggregates to add.

Pumping

SikaGrout®-180 may be placed using piston, ram or diaphragm type grout pumps fitted with ball valves.

CURING TREATMENT

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

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 (Singapore) Pte Ltd.

28 Tuas South Ave 8

Singapore 637648

Phone: +65 6861 0632

Fax: +65 6862 3915

Email: sales@sg.sika.com

www.sika.com.sg



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