BUILDING TRUST

PRODUCT DATA SHEET

SikaGrout®-180 Reno

(formerly Davco® Reno Grout 180)

PUMPABLE HIGH FLUIDITY SHRINKAGE-COMPENSATED CEMENTITIOUS GROUT

DESCRIPTION

SikaGrout®-180 Reno 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 Reno 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 Reno 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.

CHARACTERISTICS / ADVANTAGES

- Formulated with recycled material to reduce environmental impact.
- It is non gaseous, free of bleeding, settlement and shrinkage.
- Consistently good quality as all ingredients are premixed in the factory.
- High early and ultimate strengths.
- Increased strength when fully restrained.

APPROVALS / STANDARDS

Singapore Green Building Product (Leader) Cert. No. SGBP 4912

PRODUCT INFORMATION

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 kg/m³	(Wet)
Consistency	10 - 30 sec	(ASTM C939:2016)

TECHNICAL INFORMATION

Compressive Strength	≥ 40 N/mm²	(ASTM C942 : 2015)

Shrinkage	0% @ 28 days	(ASTM C940 : 2016)
Expansion	≤ 0.4% @ 3 days	(ASTM C940 : 2016)
Bleeding	0	(ASTM C940 : 2016)

APPLICATION INFORMATION

Mixing Ratio	Flowable Consisitency	4.0 - 5.0 litres water per bag
	Plastic Consistency	3.0 - 3.2 litres water per bag
Yield	Around 0.013 m³	
Pot Life	30 to 45 min depend on weather condition	
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.

LIMITATIONS OF USE

- At temperatures below + 20 °C, setting time and strength development will be slower.
- Non-shrink grout contains additives which expand either during the plastic stage and / or the hardening stage to compensate for the shrinkage of the cementitious matrix. However, this 'non-shrink' property will be effective only if the material is not subjected to water loss.
- This is confirmed by a note in the ASTM C 1107 Standard Specification for packaged dry, hydraulic cement grout (non-shrinkable), which clarifies the behaviour of the non-shrink grout when subjected to some drying: "Note 1: Since all conditions of use cannot be anticipated, this specification requires non-shrink grout to exhibit no shrinkage when tested in a laboratory controlled moist-cured environment, and requires only the reporting of the observed height change, usually shrinkage, when test specimens are subject to some degree of drying."

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

APPLICATION

Grouting Large Volumes
For grouting thickness greater than 50 mm, the addition of clean well-graded 10 mm aggregates is recommended to reduce temperature rise. Use a maximum of one part aggregate to one part of grout by weight. Conventional concrete pan mixers and pumps can be used for mixing and placement.

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. 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.

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.

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