



SG Grout

Non-Shrink Structural Grout

Pack Size
25Kgs & 5Kgs

TDS
Technical Data Sheet



Description

SG-Grout is an advanced, high-strength, cementitious structural grout. It is formulated with a blend of Portland cement, graded aggregates, and additives. SG-Grout is versatile and can be mixed to achieve flowable or pumpable consistency by adjusting the amount of water added. This grout is suitable for use in gap widths as narrow as 10mm.

Uses

SG-Grout is ideal for precision grouting of heavy machinery base plates, compressors, generators, and other equipment requiring high-strength properties. It is also suitable for grouting anchor bolts, prefabricated concrete panels, bore packing, and void filling.

Features

Controlled expansion ensures a rigid bond between the base plate and the concrete foundation. Versatile and can be prepared to flowable or pumpable consistency. Chloride-free and non-corrosive. High compressive strength. Suitable for grouting operations with gap widths of 10mm to 100mm.

Physical Properties

SG-Grout @27±1°C

Water/Powder Ratio	Pourable consistency: 0.16 Flowable consistency: 0.17 Free flow consistency: 0.18
Flow:	190-220mm
Time for expansion:	Start: 15 minutes Finish: 2 hours
Fresh wet density:	Approximately 2280kg/m ³ depending on actual consistency used
Expansion characteristics	An expansion of 2-4% overcomes plastic settlement in the unset material
VOC Content	5.85 g/L
Water/Powder Ratio:	0.18

Compressive Strength BS: 6319 (Part 2)	1 day: 25.0 N/mm ² 3 days: 47.0 N/mm ² 7 days: 58.0 N/mm ² 28 days: 66.0 N/mm ²
Flexural Strength BS: 6319 (Part 3)	1 day: 3.0 N/mm ² 3 days: 6.0 N/mm ² 7 days: 7.0 N/mm ² 28 days: 10.0 N/mm ²
Tensile Strength BS: 6319 (Part 7)	28 days: 3.7 N/mm ²
Pull Out Bond Strength	7 days: 17.0 N/mm ² 28 days: 24.0 N/mm ²
Modulus of Elasticity	ASTM C 469-94: 40,000 N/mm ²

Yield

Approximately 13 liters per 25kg bag (Free flow consistency)

Note:

These figures are theoretical, and practical coverage figures may be reduced due to wastages and the variety/nature of substrates.

Application Instructions

Substrate Preparation

The substrate must be hard, sound, and free of dust, dirt, and other loose material. The underside of the base plate should be free of rust, oil, grease, or other contaminants that could hinder the bond. The minimum gap width of 10mm should be maintained between the base plate and the foundation. Ensure soaking of the prepared surface with clean water for a minimum of 24 hours before starting the grouting operation. Prior to grouting, remove all standing water using a high-powered blower, taking care to blow out water from the bolt holes and pockets.

Formwork

Formwork fitted around the base plate should be rigid and watertight to prevent grout loss. The top of the formwork should be a minimum of 25mm above the bottom level of the base plate. On the pouring side, the formwork should be at least 150mm high to allow a head of grout to build up. The grout head must be maintained at all times during the grouting operation to eliminate air pockets. Ensure continuous grouting operation without stoppage. Generally, the gap width between the base plate and the formwork is maintained at 100-150mm on the pouring side and 50mm on the opposite side. Whenever possible, avoid gaps between the base plate and formwork at the shoulders, as unrestrained grouts tend to crack.

Mixing

Add 90% of the pre-measured mixing water into a clean container and slowly add SG-Grout. Mix thoroughly for 3 minutes using a heavy-duty slow-speed drill (400-600 rpm). Then add the remaining 10% of water and continue mixing for another 2 minutes to ensure a smooth, even consistency of the grout. Place the grout immediately after mixing. It is recommended to keep the water temperature below 25°C for a longer working time of the grout.

Pourable consistency @ w/p ratio of 0.16

Flowable consistency @ w/p ratio of 0.17

Free flow consistency @ w/p ratio of 0.18

Placing of Grout

Ensure that sufficient grout mix is prepared and ready for the work. The bolt pockets must be grouted first before grouting between the base plate and the substrate. Continuous grout flow is essential to ensure no air pockets are formed. Ensure that the grout reaches the other end of the formwork and overflows to release any trapped air.

Curing

Upon completion of the grouting operation, exposed areas should be thoroughly cured either with wet hessian or with a curing compound.

Storage and Shelf Life

SG-Grout has a shelf life of 6 months if kept in a dry, clean store between 5°C and 30°C in the original unopened containers. The product should be protected from frost, away from direct sunlight, and sources of heat.

Precautions

Avoid contact with eyes and prolonged contact with the skin. Care should be taken to avoid inhalation or ingestion of dust and prevent contact with the eyes. In case of contact with eyes, flush with a large amount of clean water and seek medical advice if necessary.

Disposal/Spillage

Spillage of the product should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

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Data Reliability

All technical data provided in this document are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Regional Compliance

Product specifications may vary based on local regulations. Please refer to the local Product Data Sheet for precise information.

Legal Disclaimer

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