Flo-Grout ST

Free flowing non-shrink grout for sonic tubes



DESCRIPTION

Flo-Grout ST is a pre-packed, pre-mixed, hydrogen and chloride free grout consisting of selected cement, admixtures and expansive material. It is designed to give excellent flow properties, shrinkage compensation, and high compressive strength.

Flo-Grout ST reduces the water demand at the desired flow, producing high strength grout with low permeability and excellent bond to steel. The low permeability grout produced will reduce the ingress of harmful agents and will protect the steel from corrosion.

APPLICATIONS

Flo-Grout ST is ideally designed as free flow grouting in:

- Sonic tubes, rock bolt anchoring, cable anchors, grouting micropiles and forepoles.
- » Post tensioned cables used in bridges, deck ducts, etc.
- » Pre-stressed structural elements.

ADVANTAGES

- » A non-shrink hydrogen free-expansion system to prevent steel corrosion.
- » Low permeability grout at low water to cement ratio.
- » High bond to steel.
- » High initial and ultimate strength.
- » Chloride and hydrogen free.

METHOD OF USE

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. High shear vane mixer is required when mixing large quantities.

50 kg of Flo-Grout ST should be added slowly to 14.75 - 15.25 litre of water and mixed continuously for 5 minutes until a uniform consistency is obtained.

Note: For optimum flow, Flo-Grout ST may need conditioning before mixing in very hot or cold climate conditions, also chilled or warm water is recommended to be used for mixing depending on the ambient temperature. (consult DCP Technical department for more information).

TECHNICAL PROPERTIES:

Colour: Grey

Flow:

ASTM C939

Initial 23 ± 2 sec

@ 30 min after (re-mixing) 27 ± 2 sec

≥ 20 MPa @ 1 day

Compressive strength: ASTM C109/109M

≥ 35 MPa @ 7 days ≥ 55 MPa @ 28 days

Fresh wet density: $2.0 \pm 0.1 \text{ g/cm}^3$

Bleeding:

ASTM C940

Nil

Working time: 30 min

(Re-mixing is required to achieve the needed flow directly before the application)

Initial setting time:

ASTM C191 4 - 8 hr

Note: Typical properties @ 14.85 litre per 50 kg @ 25°C. Compressive strength @ 1 day is under restrain. Compressive strength @ 7 & 28 days is under wet cure @ 25°C.

PLACING AND FINISHING

Sufficient materials should be available on site to ensure continuous grouting. Application of the mixed grout should be started from the bottom of the sonic tube to avoid air entrapment.

The mixed grout should be placed using a suitable pump during the flowability time to gain the full benefit of the expansion process. The grout hose should be connected to the pump at one side and the other end is to be placed at the bottom of the sonic tube.

Start the pump and allow the mixed grout to flow slowly and continuously into the sonic tubes through the hose. While grouting, the hose should be pulled up slowly as the grout flows along the tube length. Care should be taken to keep the unrestrained surface areas of the grout to the minimum.

Please contact your local DCP Technical Representative for further information on the placement of grout, depending on the area of application.



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CURING

Only exposed areas should be properly cured with water.

CLEANING

All tools should be cleaned immediately after application using fresh water. Hardened materials must be cleaned mechanically.

PACKAGING

Flo-Grout ST is available in 50 kg bags.

YIELD

Approximately 32.4 litre of mixed grout is obtained when mixing 50 kg Flo-Grout ST with 14.85 litre water.

STORAGE

Flo-Grout ST has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C in original unopened bags.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

CAUTIONS

HEALTH AND SAFETY

Flo-Grout ST contains Portland cement, Flo-Grout ST may cause irritation to skin or eyes.

In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advise if necessary.

For further information refer to the Material Safety Data Sheet.

FIRE

Flo-Grout ST is nonflammable.

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- » Surface treatments
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- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- Structural strengthening.

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Note

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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