

Flo-Grout WT

Ultra-high strength non-shrink cementitious precision grouts for extremely heavy duty applications



Description

Flo-Grout WT is a pre-mixed, shrinkage compensated chloride and hydrogen free precision grout that consists of unique composition of cement, well graded aggregate and special additives which when mixed with water produces a highly flowable grout with exceptional early and ultimate strength.

Applications

Flo-Grout WT is specially designed for heavy duty structural grouting applications such as:

- ▲ Wind turbine installation.
- ▲ Machinery and equipment under high loads.
- ▲ Bridge bearing pads and plinths.
- ▲ Anchoring of bolts, bars and stressing cables.
- ▲ Pile caps treatment.

Advantages

- ▲ Exceptional compressive and flexural strengths.
- ▲ Very high early strength development allowing for rapid installation.
- ▲ Shrinkage controlled cementitious grout to eliminate any potential cracks.
- ▲ Extremely dense and low permeability.
- ▲ High fatigue resistance.
- ▲ High flow characteristics, can be easily poured or pumped into variable gap widths down to 10 mm.
- ▲ Easy to apply, single component which requires only addition of water.
- ▲ Chloride and hydrogen free.

Method of Use

Substrate Preparation

The substrate should be sound, clean and free from contamination. Surface laitance should be removed by suitable mechanical means.

All surfaces should be pre-soaked with clean water for a minimum period of 4 hours prior to grouting.

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used.

Technical Properties @ 25°C:

Colour:	Grey
Fresh wet density:	2.4 ± 0.1 g/cm ³
Compressive strength: ASTM C109/109M	≥ 55 MPa @ 1 day ≥ 85 MPa @ 7 days ≥ 95 MPa @ 28 days ≥ 102 MPa @ 56 days
Flexural strength: ASTM C348	≥ 12 MPa @ 28 days
Bleeding: ASTM C940	Nil
Length change of hardened grout: ASTM C157	+0.4% @ 56 days
Recommended application temperature:	5 to 35°C
Working time:	30 min

Note: Typical properties @ 2.75 litre/25 kg @ 25°C. Compressive and flexural strengths specimen should be kept under retrained conditions for the first 24 hours, followed by wet curing conditions.

2.75 liters of clean water should be added to clean container for each 25 kg bag, the powder is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm).

Mixing should be continued for 3 minutes until a uniform consistency is obtained.

Placing and Finishing

Enough material should be available to achieve continuous fill and to complete the work. Pouring of the mixed grout should be started from one side only to avoid air entrapment.

To obtain maximum flow distance, a side shutter feed between 100 mm to 250 mm high should be erected and used to build the required. For large installation areas, Flo-Grout WT can be pumped.

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Formwork:

As the mixed grout possesses high fluidity characteristics, all formworks and shutters should be watertight.

This can be obtained by sealing underneath the formwork and at the joints by using appropriate mastic. The unrestrained areas should be kept to a minimum due to the expansion nature of Flo-Grout WT.

Curing

Since Flo-Grout WT is a cementitious material, it should be cured in a similar manner to concrete.

All exposed areas should be cured either by using concrete curing compound such as Setseal 22/33/44 or by using wet hessian sheets and polyethylene.

Notes:

- ▲ Do not vibrate Flo-Grout WT.
- ▲ At low temperatures (below 8°C), warm water is recommended to achieve the early strength. Form work striking is to be delayed as necessary.
- ▲ At high temperatures (35°C and above), cold water (less than 20°C) must be used for mixing. Materials shall be stored in a cool shaded area prior to mixing, avoid application shall commence in early morning hours or after sunset where temperature is falling.

Cleaning

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

Packaging

Flo-Grout WT is available in 25 kg bags.

Thicknesses and Size Limitations

Flo-Grout WT can be applied in a single layer at thickness between 10 - 150 mm. For greater thicknesses please contact DCP Technical Department for advice.

Yield

Approximately 11 - 12 litres per 25 kg bag.

Storage

Flo-Grout WT has a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 40°C in original unopened bags.

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

Cautions

Health and Safety

Flo-Grout WT 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 advice if necessary.

For further information refer to the Material Safety Data sheet.

Fire

Flo-Grout WT is nonflammable.

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- ▲ Surface treatments
- ▲ Grouts and anchors.
- ▲ Concrete repair.
- ▲ Flooring systems.
- ▲ Protective coatings.
- ▲ Sealants.
- ▲ Waterproofing.
- ▲ Adhesives.
- ▲ Tile adhesives and grouts.
- ▲ Building products.
- ▲ Structural strengthening.

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.