Non shrink cementitious bearing pads precision grout



Description

Flo-Grout BP800 is a pre-mixed, pre-packed, high strength, chloride and hydrogen free cementitious grout. Flo-Grout BP800 is compound of cement, selected additives, well graded fillers, and non-reactive aggregates designed to give excellent flow properties, shrinkage compensation, and high compressive strength.

Applications

Flo-Grout BP800 is ideally designed for grouting areas beneath bridge bearing pads, pile caps treatment, heavy stanchion bases and base plates where high strength grout is required.

Advantages

- ▲ Non-shrink grout.
- ▲ Suitable for use in hot climates.
- ▲ Extremely dense and low permeability.
- ▲ High initial and ultimate strength allowing for rapid installation.
- ▲ Good flow can be poured or pumped into variable thicknesses down to 10 mm.
- ▲ Easy to apply, single component, requires only addition of water.
- ▲ Hydrogen and chloride free.
- ▲ Non-shrink grout that has dual expansion properties to compensate for shrinkage in both the plastic and hardened stages.

Standards

Flo-Grout BP800 complies with U.S. Corps of Engineers Specifications CRD—C588-79 and CRD — C621 and ASTM C1107, Grade C.

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.

Technical Properties:

Compressive strength: 30 MPa @ 1 day 60 MPa @7 days 80 MPa @ 28 days

Flexural strength: > 10 MPa @ 28 days

Colour: Grey

Plastic-expansion charac-

teristics: Up to 2%

ASTM C827/C827M-10

Bleeding: ASTM C940

Hardening stage expan-

sion: Up to 0.3% @ 28 days

ASTM C1090

Fresh wet density: $\approx 2.0 \text{ gm/cm}^3$

Note: Typical properties for Flo-Grout BP800 are obtained @ 3.75 litres/ 25 kg @ 25°C.

Compressive strength @ 1 day is under restrain.

Mixing

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

Depending on the consistency required, 4.5 litres (Fluid) or 3.75 litres (Flowable) of clean water should be added to a clean container. The 25 kg powder is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm).

Mixing time should be continued for 4 to 5 minutes until a uniform consistency is obtained. Where the first 2 minutes of mixing the mixture will be stiff. The mixed grout shall be poured immediately after mixing, the grouting operation must be carried out continuously.

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 100mm to 250 mm high should be erected and used to build the required.

Formwork:

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

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 BP800.

Curing

As Flo-Grout BP800 is a cementitious material, it should be cured conventional means.

Curing can be conducted using a good concrete curing compound such as Setseal 44.

Notes:

- ▲ 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 BP800 is available in 25 kg bags.

Thicknesses and Size Limitations

Flo-Grout BP800 can be applied in a single layer at thickness between 10-180 mm. For greater thicknesses, Flo-Grout BP800 (WWA) should be used.

Flo-Grout BP800 (WWA) contains 8 – 12 mm well graded washed aggregates to minimize exothermic or 14 kg of washed aggregates should be added to 25 kg of Flo-Grout BP800.

Yield

Approximately 14 - 15 litres/ 25 kg bag depending on consistency.

Storage

Flo-Grout BP800 has a shelf life of 12 months 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 BP800 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 BP800 is non-flammable.

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Note

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