

Flo-Add C

Free flow non-shrink grout additive for post tensioned cables



Description

Flo-Add C is a pre-packed powder consisting of selected admixtures and expansive material. The addition of Flo-Add C to grout mixes produces a high flow, non-shrink, and non-segregated grout. Flo-Add C 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 with the aid of Flo-Add C will reduce the ingress of harmful agents and will protect the cables from corrosion.

Applications

Flo-Add C is ideally designed for free flow grouting in post tensioned cables used in bridges, deck ducts, etc. It is also suitable for use in cable ducts and pre-stressed structural elements.

Advantages

- ▲ Will produce a non-shrink grout which is compensated for shrinkage and settlement in the plastic stage.
- ▲ Will produce a high flow grout without water bleeding.
- ▲ Will produce an extremely low permeability grout at low water to cement ratio.
- ▲ Reduces the ingress of harmful substances.
- ▲ High bond to steel.
- ▲ High initial and ultimate strength.
- ▲ Chloride free.

Standards

The use of Flo-Add C enables grout mixes to comply with ASTM C1107, Type A.

Method of Use

- ▲ Sufficient materials should be available on site to ensure continuous grouting.
- ▲ Cables should be carefully cleaned prior to grouting.
- ▲ Cable anchorage should be sealed prior to duct grouting.

Mixing

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

Technical Properties:

Colour:	Grey
Compressive strength: ASTM C109/109M-11	≥ 20 MPa @ 1 day ≥ 45 MPa @ 7 days ≥ 55 MPa @ 28 days
Expansion characteristics: ASTM C827/C827M-10	Up to 4%
Fresh wet density:	2.1 ± 0.1 g/cm ³
Flow characteristics: ASTM C939-87 within 30 min from mixing. Re-mixing may be needed to keep the needed flow	< 32 sec
Addition rate:	6 kg Flo-Add C : 100 kg cement: 34 - 36 litre clean water (variable depending on cement type and source)
VOC:	< 10 g/ltr

*Notes: These results were obtained when ordinary portland cement that complies with ASTM C150-02a is used, and having a compressive strength @ 28 days > 42.5 MPa.
Compressive strength @ 1 days is under restraint.
Compressive strength @ 7 & 28 days is under wet cure.*

- ▲ While mixing, 6 kg of Flo-Add C and 100 kg cement should be added to 35 ± 2 litre of water and mixed continuously for 5 minutes until a uniform consistency is obtained.

Placing and Finishing

In case of pumping, a suitable diaphragm pump must be used (screw and piston pump may also be suitable). The mixed grout should be pumped from one point only to eliminate air entrapment. The mixed grout should be pumped within 30 minutes of mixing.

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Flo-Add C

Curing

Only exposed areas should be properly cured with water.

Cleaning

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

Packaging

Flo-Add C is available in 6 kg bags.

Yield

Approximately 68 litre of mixed grout is obtained when mixing 6 kg Flo-Add C, 100 kg cement and 34 litre water.

Storage

Flo-Add C 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-Add C is alkaline and should not come into contact with eyes and skin.

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-Add C is nonflammable.

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Note:

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