# 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.
- 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.

## **TECHNICAL PROPERTIES:**

Colour: Grey

Compressive strength:  $\geq$  20 MPa @ 1 day ASTM C109/109M-11  $\geq$  45 MPa @ 7 days

≥ 55 MPa @ 28 days

Expansion

characteristics: ASTM C827/

Up to 4%

C827M-10

Addition rate:

Fresh wet density:  $2.1 \pm 0.1 \text{ g/cm}^3$ 

Flow characteristics: < 32 sec

ASTM C939-87 within 30 min from mixing. Remixing may be needed to keep the needed flow

6 kg Flo-Add C:100

kg cement:  $35 \pm 2$  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 restrain. Compressive strength @ 7 & 28 days is under wet cure.

## **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.

#### **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, contact DCP Technical Department for advice.

## **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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Flo-Add C

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