

CEMCRETE CABLE FLOW

Free Flow Non-shrink Grout for Post Tensioned Cables

Description:

CEMCRETE CABLE FLOW is a high performance, expanding, non-shrinkage, flowable anchoring cementitious grout. It is formulated to be mixed with a reduced amount of water to give the designed flow required. The addition of expansive and super plasticizer additives produce a fluid, non-blending, non-shrink expansive grout with extended working time. The mix also contains corrosion inhibiting additive to provide corrosion protection for post tension steel cables, anchorage and rods. Its fluid characteristics allow the product to be pumped through small openings over long distances and placed into relatively inaccessible areas.

Uses:

CEMCRETE CABLE FLOW was designed with characteristics of free flow, no bleeding, non-shrinkage, high strength grouting, to be used when complete encapsulation of the reinforcing and protection from corrosion are required. Some of the applications include:

- In post tensioned cables where no segregation or plastic settlement shrinkage, high strength and resistance to chloride penetration are required.
- Bridges, deck ducts, etc. It is also suitable for use in cable ducts and pre-stressed structural elements.
- Grouting of post tensioning cable ducts in bridges and high rise buildings.
- Pumping grout through small opening over long distances.
- Grouting cable anchorages for pre-stressed reinforcing steel in structural element.

Advantages:

- Ready to use, requires only the addition of specified amount of water.
- Shrinkage and settlement compensated grout.
- Low permeability grout at low water /cement ratio
- Reduces the ingress of harmful substances.
- High bond to steel with excellent cohesive properties.
- No bleeding of grout while casting.
- High initial and final strength.

- Chloride free.
- Easy to pump or pour, even in narrow and long ducts.
- Flowable grout with controlled expansion factor.
- Improved resistance to sulphate attack.

Instructions for Use:

Surface Preparation:

To prepare for placement of CEMCRETE CABLE FLOW, ensure sufficient material available on site to ensure continuous grouting. All post tensioned cables should be carefully cleaned with water prior to grouting process. Any free water must be drained out after cleaning. Cable anchorage should be sealed prior to duct grouting.

Mixing:

CEMCRETE CABLE FLOW must be mixed mechanically with low speed drill mixer 200-300 rpm fitted with suitable paddle. For large quantities use proper grout vane mixer. Add the contents of the 20 kg powder bag to a container filled with 6.5-7 liters of clean water. Mix for a minimum of 3-4 minutes till obtaining a homogeneous lump free mix.

Application:

In case of pumping, a suitable pump must be used. Screw and piston pump may also be suitable. Place CEMCRETE CABLE FLOW by pouring or pumping the mix into the area to be grouted in a continuous manner. The mixed grout should be pumped from one point only, to eliminate air entrapment. The placing should also be completed within maximum 20 minutes of mixing in order to get the benefit of the expansion process. CEMCRETE CABLE FLOW can be placed to fill gaps up to 75 mm thick. After completing the job, clean the used tools immediately with clean water before the grout dries out.

Standards:

- ASTM C1107-02, C 580
- BS 8110, Part 1, Sec. 8, BS 4551
- EN 445, 446 & 447
- UNI 8147

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TECHNICAL PROPERTIES	
Appearance	Grey Powder
Density	2.0 ± 0.03 kg/lit
Volumetric Change (ASTM C827)	Positive expansion up to 4%
Potlife time @25°C	>45 minutes
Compressive Strength (ASTM C109)	>42 N/mm ² @ 7 days >50 N/mm ² @ 28 days
Flexural Strength (ASTM C580)	5.5 N/mm ² @ 7days 7.0 N/mm ² @ 28 days
Bleeding (BSEN 445)	0.0 - 0.03 max
Chloride Content (ASTM C1202)	NIL
Fluidity (BSEN 445)	Initial: 15-20 sec 20-25 sec at 30 min
Initial Setting	5 hours
Final Setting	7 hours

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

Yield:

CEMCRETE CABLE FLOW achieves 13.5 liters of wet grout.

Packaging:

CEMCRETE CABLE FLOW is available in 20 kg high quality recyclable paper bags.

Storage:

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

Shelf Life:

CEMCRETE CABLE FLOW can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

Cleaning:

Clean tools and equipment with water before material hardens. Hardened material can only be removed mechanically.

Remarks:

- For application during summer season, it is recommended to shade the working area. Use cold water for mixing the grout, and keep the tools in shade.
- Try to eliminate application during the peak temperature of the day.
- Mix enough grout that can be produced during the open time.
- Store unused material in an unopened bags under a covered area in a dry place.

Health and Safety:

Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapour or spray mist.

FIRST AID:

- Eyes: In the event of accidental splashes, flush with warm water and seek medical advice.
- Skin: Wash skin thoroughly with soap and water
- Inhalation: Remove to fresh air, keep patient rested
- Ingestion: Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer to CEMCRETE CABLE FLOW Material Safety Data Sheet.

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