

CEMCRETE CABLE FLOW NS

Shrinkage Control, High Strength Grout Admixture

Description:

CEMCRETE CABLE FLOW is a high strength, highly fluid, non-shrink powder grout admixture. It is a specially formulated powder designed with a set of synergistic admixtures, when added at the rate of 6% by weight of cement will produce a pumpable, shrinkage controlled, non-segregating, extremely flowable grout. It provides corrosion protection for highly stressed steel cables, rods and many other systems.

Advantages:

- Superior early strength gain, allowing early tensioning of anchors.
- Precision, non-shrink performance provides excellent bearing.
- Has limited expansion (approx.0.1%)
- High fluidity, easy to pump or pour.
- High strength.
- Dose not contain any added chloride ions
- Dynamic load stability.
- Excellent cohesive properties.
- No bleeding.
- Improved resistance to sulphate attack.
- Very low permeability.

Uses:

Grout contains CEMCRETE CABLE FLOW NS admixture is used in:

- Grouting of cable ducts, voids and fine fissures.
- Support of cable anchor plates and ground anchors.
- To provide bearing or contact between structural elements.
- Grouting behind shafts and tunnel linings.
- Underpinning, loose floor and road slabs.

Instructions for Use:

Surface Preparation:

Clean all cables and rods of oxidation, oil and dirt. Pressure flushing may be required. If flushing is required use only those cleaners that will not promote oxidation. All cable ducts must be thoroughly cleaned. Sufficient head should always be provided by positive pump pressure to ensure grout flow along or upwards in the cable ducts. Site trials may be carried out to confirm that suitable equipment is available and an appropriate water/powder ratio is chosen.

Mixing:

Locate the mixing equipment (a paddle-type mortar mixer) as close to the area to be grouted as possible. Prior to mixing the first batch of grout, wash out the mixer and determine the number of bags to be mixed at one time. Mix only the amount of grout that can be placed within maximum 30 minutes.

Place into the mixer approximately 50 litres of clean water per 200 Kg of fresh cement. Start mixing with adding the total content of CEMCRETE CABLE FLOW NS bag. followed by cement. Mix the grout to a doughy state being careful not to overload the mixer to the point of stalling. After approximately 3 minutes and all lumps have disappeared, add the remaining water (approximately 24-26 liters) and mix for a further 2 minutes or to uniform consistency. In case of using a high-speed mixer (about 1500 r.p.m), the total mixing time can be reduced to 3 minutes. The total amount of mixing water should be in the range of minimum 34 to maximum 36% of the weight of cement and CEMCRETE CABLE FLOW NS powder.

Placing:

Where grout will be pumped into place the grout pump should be of the positive displacement type capable of generating at least 10 bars pressure. Up to 40 bars may be required to fill particularly long or high upward running ducts. The rate and continuity of

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placing should be controlled to encourage good penetration of grout into the voids within the duct and the expulsion of air from the duct. Do not disturb once grouting has been completed before the grout has hardened. Cable grout may be placed at temperature between 5 C⁰ and 40 C⁰. For placing temperature outside this range contact the technical service department in MATEX.

For application during summer season, the following precautions should be considered:

- Use cold water for mixing. Water should be accurately measured.
- Try to eliminate application during the peak temperature of the day.
- Mix enough grout that can be produced during the open time.
- Store unused materials in covered dry place.
- It is recommended to shade the working area during mixing and pumping the grout.
- Grouting operation should be carried out continuously. Sufficient mixing capacity and labour are essential.

Curing:

After grouting has been completed, or when the formwork is removed, any exposed grout must be cured immediately with one of Curing products.

TECHNICAL PROPERTIES	
Appearance	Brownish grey powder
Wet Density	2.0 ± 0.03 kg/lit
Compressive Strength	
1 day	26 MPa
3 days	37 MPa
7 days	48 MPa
28 days	60 MPa
Expansion	500 um/m
Flow	10-25 seconds
Water Bleeding (% by volume)	<0.1%
Volume Change	From 0 up to 3%

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

Packaging:

CEMCRETE CABLE FLOW NS is supplied in 12 Kg paper bags.

Storage:

Keep material covered from rain, clear of the ground, out of direct sunlight. Limit your compaction to a minimum. Avoid using if the packaging is broken or has been opened for longer than a month. The product or packaging may prematurely deteriorate if the required storage conditions are not followed.

Yield:

By mixing 200 Kg of cement, 12 Kg of CEMCRETE CABLE FLOW NS and 76 liters of water, approximately 144 liters of highly flowable grout are obtained.

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 NS Material Safety Data Sheet.

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