

MONNELI ESPANSIL CABLE FLOW*

Non Shrinkage Grout for Filling Cable Ducts

Product Description

A high performance, expanding, shrinkage compensated anchoring grout. It is formulated to produce a fluid, non-bleeding, non-shrink grout with extended working time. It contains migratory corrosion inhibitors to provide corrosion protection for highly stressed steel cables, anchorage and rods. Its fluid characteristics allows the product to be pumped through small openings over long distances and placed into relatively inaccessible areas.

Uses

ESPANSIL CABLE FLOW* is specially designed for uses where high fluidity, extended working time, no bleeding, segregation or plastic settlement shrinkage, high strength and resistance to chloride penetration are required. Applications include:

- Grouting of post tensioning cables or bar where complete encapsulation of the reinforcing and protection from corrosion are required
- Pumping grout through small opening over long distances
- Grouting cable anchorages for highly stressed reinforcing steel

Advantages

- Ready to use, requires only the addition of specified amount of water
- Easy to pump or pour
- Controlled expansion
- Non-shrink performance provides excellent bearing
- Flowable and self-leveling
- High strength
- Excellent cohesive properties
- Resistant to water washout and dilution by water in wet ground conditions

- Thixotropic properties reduce material loss in fractured ground
- Reduced bleeding
- Improved resistance to Sulphate attack
- Very low permeability

Instructions for Use

Surface Preparation

The area/duct to be grouted should be cleaned with water before the application of grout. Any free water must be drained out. Cable anchorages should be sealed before the duct grouting is carried out.

Mixing

Add one 50kg bag of ESPANSIL CABLE FLOW* into 16.25 to 17.5 Liters of potable water. For mixing small quantity use a slow speed drill fitted with a suitable paddle at 200-300 rpm. For mixing large quantity, it is recommended to use proper grout vane mixer. Adding more water than the specified limits will result in loss of properties. Mix for 5 minutes till obtaining a homogeneous product, free from lumps.

Application

Place ESPANSIL CABLE FLOW* by pouring or pumping into the area to be grouted in a continuous manner and do not allow air pockets to develop. The placing should be within maximum 20 minutes of mixing to gain benefit of the expansion process.

Ensure proper evacuation of air, filling process has to be started from one side till the grout flows at the other side.

ESPANSIL CABLE FLOW* can be placed in annular gaps of up to 60 mm in thickness.

Cleaning

All used tools should be cleaned with water before the product cures. Cured materials should be mechanically removed.

Recommendations

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

- Use cold water (20-23°C) for mixing the grout
- Try to eliminate application during the peak temperature of the day. Mix enough grout that can be produced during the workable time
- Store unused materials in a covered dry place
- It is recommended to shade the working area during mixing and pumping the grout.

Consumption

50kg bag. ESPANSIL CABLE FLOW* yields approximately 33.0 Liters of grout when mixed with specified amount of water.

Packaging

ESPANSIL CABLE FLOW* is supplied in 50kg paper bags.

Applicable Standards

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

Technical Data

Properties	Results
Appearance	Grey granular powder
Dry density at 25°C	1.42 kg/L
Wet density at 25°C	1.90 kg/L
VOC	10 g/L
Compressive strength at 7 days at 28 days (ASTM C579)	42 N / mm ² > 50 N / mm ²
Flexural strength at 7 days at 28 days (ASTM C580)	6.5 N / mm ² 7.0 N / mm ²
Chloride content	Nil
Nitrate content	Nil
Fluidity Initial After 30 minutes	10-20 seconds < 20 seconds
Volume change	Positive expansion up to 4%

All values are subject to 5-10 % tolerance

Storage

Keep in a sheltered and dry place in closed packaging. In these conditions, the product maintains its stability for at least 12 months.

Health & Safety

ESPANSIL CABLE FLOW* can be harmful to skin as it contains cement powders which may release alkalis when mixed with water.

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

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