



VetogROUT GA514

Cable Grout Additive

Uses

- Post tensioned bridge deck ducts.
- Pre-stressed structural element cables ducts.
- Slip form silo tendon ducts.

Product Description

VetogROUT GA514 is a pre-blended powder admixture containing expansive agents which impart controlled expansion in the plastic state whilst minimizing water demand. The material is designed to allow uniform mixing, and eliminates unwanted segregation and bleeding.

Advantages

- Plastic state shrinkage compensation.
- High early strength promotion.
- Increased concrete durability and permeability reduction.
- Compatibility with ordinary Portland cement.

Standards Compliance

- BS EN 445.
- BS EN 196.

Design Considerations

VetogROUT GA514 is tested using 50 mm cubes. The mixture design shall be based on the following to achieve required results:

- 6 Kg of VetogROUT GA514.
- 33 to 38 Liters of clean water.
- 100 Kg of Ordinary portland cement.

Technical Data

VetogROUT GA514	Typical Values
Compressive Strength based on EN196	>20 N/mm ² @ 1 day >40 N/mm ² @ 7 Days >55 N/mm ² @ 28 days
Fresh wet density	2 Kg/Liter
Expansion (EN 445)	up to 4%
Bleeding (EN 445)	<1% after 3 hours
Adhesion Strength to Concrete	>2 MPa
Fluidity (final) (EN 445 flow cone)	20 seconds after 30 minutes

Usage Instructions

Preparation

Several hours prior to grouting, the area should be flooded with fresh water. Immediately before grouting takes place any free water should be removed.

All cable ducts must be thoroughly cleaned. Those ducts formed without metal sheaths should be flushed with water after which all surplus water must be removed. Cable anchorages should be sealed before the duct grouting is carried out.

Mixing

For best results a mechanically powered grout mixer should be used. Do not use a colloidal impeller mixer, if sands/aggregates are being used. To enable the grouting operation to be carried out continuously, it is essential that sufficient mixing capacity and labour are available. The use of a grout holding tank with provision to gently agitate the grout may be required.

33 to 38 liters of clean water (depending on nature of cement) and 100 kg of cement are required to be added per 6 kg bag to achieve the correct consistency.

The water should be accurately measured into the mixer. The total contents of the VetogROUT GA514 bag should be slowly added with the cement and continuous mixing should take place for 5 minutes. This will ensure that the grout has a smooth even consistency.

Placing

Place VetogROUT GA514 mix within 20 minutes of mixing in annular gaps of up to 60 mm thick. A screw feeding pump such as PFT ZP3 booster pump or equivalent can be used.

Curing

Use standard curing practices as per ACI recommendation to cure any exposed surfaces of the placed mix but use of a curing compound such as Vetocure XT425.

Cleaning

Tools and equipment can be cleaned with fresh water. Hardened material needs to be removed mechanically.

Sampling Procedure

All sampling procedures for VetogROUT GA514 are to be conducted within the confines of a temperature controlled laboratory. The reactive agents within VetogROUT GA514 do not permit site sampling and transport. The procedure for sampling is to be as follows:

1. A full and unopened bag of VetogROUT GA514 to be selected from the batch allocated for site use and dispatched to the testing laboratory.
2. The VetogROUT GA514 shall be mixed in the laboratory following the instructions listed on the product data sheet.
3. All sampling shall be conducted using 50 mm cube moulds, any other size is not permissible.

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4. When mixed, the VetogROUT GA514 shall be poured into 50 mm cube moulds, treated with release agent, in two lifts of 25 mm each with a 60 second interval between pours. The VetogROUT GA514 shall not be tamped, but gentle tapping of the cube mould is permitted to promote the release of air.
5. Fill three 50 mm cube moulds with the VetogROUT GA514 for each curing time interval specified. Mould filling should be completed within 15 minutes of the end of the mixing cycle. The filled moulds should be stacked three high on top of each other to provide conditions of restraint. The top mould should be restrained either with a weighted metal plate or an empty cube mould.
6. The cubes should be stored at a 20°C + 2°C temperature for 24 hours in the laboratory. After 24 hours the cubes are to be de-moulded and placed in a water curing tank maintained at a 20°C + 2°C temperature. The cubes are then to be cured in accordance with standard curing practices.
7. Cubes are to be crushed in calibrated compression testing apparatus with a rate of loading not exceeding 0.2 - 0.4 N/mm² per-second. Types of cube fracture are to be recorded. Three cubes are to be crushed for each curing time interval specified. Results are to be calculated and issued as an average.

Packaging & Coverage

Product	Pack Size	Yield
VetogROUT GA514	24 kg Bag	Refer to mix design.

Shelf Life & Storage

Original sealed bag of VetogROUT GA514 has a shelf life of 12 months provided it is stored clear of ground in a dry and shaded place.

Health & Safety

VetogROUT GA514 is alkaline and should not come into contact with skin and eyes. Avoid inhalation of dust during mixing. Gloves, goggles and dust mask should be worn. If contact with skin occurs, wash with water. Splashes to eyes should be washed immediately with plenty of clean water and medical advice sought. VetogROUT GA514 is non-flammable.