



# HIGH PRECISION GROUT



# **Vetogrout GA514**

Cable grout additive

#### Uses

- For post-tensioned bridge deck ducts.
- For prestressed structural element cable ducts.
- For slip-form silo tendon ducts.

# **Product Description**

Vetogrout GA514 is a pre-blended powder admixture that contains expansive agents to perform a controlled expansion (in the plastic state) while 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 & reduced permeability.
- Compatibility with ordinary Portland cement.

# Standards Compliance

- ASTM C1107
- EN 447
- EN 934-4

### **Design Considerations**

Vetogrout GA514 is tested using 50 mm cubes. The mixture design should be based on the following to achieve optimal results:

- 6 Kg of Vetogrout GA514.
- 30 to 35 Liters of clean water.
- 100 Kg of ordinary portland cement.

### Technical Data

Vetogrout GA514	Typical Values
Color	White Powder
Compressive Strength (EN 455) (N/mm²) @ 1 Days @ 7 Days @ 28 Days	> 20 > 40 > 50
Fresh Wet Density (kg/ltr)	2
Expansion (EN 445) (%)	Up to 4
Bleeding (EN 445) (%) (Hours)	< 1 after 3
Adhesion Strength to Concrete (MPa)	> 2
Fluidity (Final) (EN 445 Flow Cone)	20 Seconds after 30 Minutes

# Usage Instructions

### **Surface Preparation**

Flood the area with fresh water several hours before grouting. Immediately before grouting takes place, remove any remaining free water.

Clean all cable ducts thoroughly . Flush all ducts formed without metal sheaths with water; after that, remove all surplus water. Seal cable anchorages before the duct grouting begins.



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### Mixing

For best results, use a mechanically powered grout mixer. 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 to provide sufficient mixing capacity and labor onsite. Use a grout holding tank (It's essential to gently agitate the grout when required).

For a 6 kg bag of Vetogrout GA514, add 30 to 35 liters of clean water (depending on the nature of cement) to 100 kg of cement to achieve the correct consistency.

Accurately measure the water into the mixer. Slowly add the Vetogrout GA514 bag's entire contents with the cement and mix continuously for 5 minutes. This will ensure that the grout has a smooth, even consistency.

#### **Placing**

Place the Vetogrout GA514 mix within 20 minutes of mixing in annular gaps that are up to 60 mm thick. If needed, use a screw feeding pump (such as a PFT ZP3 booster pump or equivalent).

### Curing

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

#### Cleaning

Clean tools and equipment with fresh water. Remove hardened material 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:

- Select a full and unopened bag of Vetogrout GA514 from the batch allocated for site use and dispatch it to the testing laboratory.
- 2. Mix the Vetogrout GA514 in the laboratory following the instructions listed on the product data-sheet.
- 3. All sampling shall be conducted using 50 mm cube molds; any other size is not permissible
- 4. When mixed, pour the Vetogrout GA514 into 50 mm cube molds, treated with a release agent, in two lifts of 25 mm each with a 60-second interval between pours. The Vetogrout GA514 shall not be tapped, but you can gently tap the cube mold to promote air release.
- 5. Fill three 50 mm cube molds with the Vetogrout GA514

for each curing time interval specified. (Mold filling should be completed within 15 minutes of the end of the mixing cycle. The filled molds should be stacked three high on top of each other to provide conditions of restraint. Restrain the top mold either with a weighted metal plate or an empty cube mold.)

- Store the cubes at a 20°C + 2°C temperature for 24 hours in the laboratory. After 24 hours, place the cubes in a water curing tank maintained at a 20°C + 2°C temperature. Cure the cubes following the standard curing practices.
- 7. Crush the cubes in a calibrated compression testing apparatus with a loading rate not exceeding 0.2 0.4 N/mm² per-second. Types of cube fractures 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

Stated consumption data are for general guidance. Actual consumption depends on the nature of substrate, method of application, and wastage.

#### Shelf Life & Storage

The 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 your skin and eyes. Avoid inhalation of dust during mixing. Gloves, goggles and dust masks should be worn. If contact with skin occurs, wash with water. Wash splashes to your eyes immediately with plenty of clean water and seek medical advice. Vetogrout GA514 is non-flammable.

### **Additional Information**

Saveto manufactures a wide range of construction chemicals and specialty products for various applications.

For further information on these products and systems kindly check our website or contact your local Saveto representative.

Saveto also provides various technical information such as CAD details, detailed method statements, specification clauses, application manuals, product selectors and technical support both in contractors and consultants offices as well as construction sites.

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