

EUNIGROUT HPG

HIGH PERFORMANCE CEMENTITIOUS NON-SHRINK GROUT

DESCRIPTION

EUNIGROUT HPG is a high cementitious non-shrink grout with a unique two-stage shrinkage compensating mechanism. It is a non-metallic grout that is chloride-free. Formulated with a special blend of shrinkage-reducing and plasticizing/water-reducing agents, EUNIGROUT HPG also incorporates specially graded natural aggregate to enhance its strength properties.

USES

EUNIGROUT HPG offers a range of uses in projects. It is commonly employed for equipment baseplates, precast concrete panels, beams and columns. With its ability to achieve high compressive strengths of up to 100 MPa, it is well-suited for applications requiring exceptional strength. This versatile non-shrink grout is also ideal for grouting thick pour applications, static load grouting and bridge bearing pads. Its multiple uses make it a reliable choice for a variety of construction needs.

ADVANTAGES

- Suitable for machine application.
- High strength.
- Easy to apply.
- Good self levelling and smooth surface.
- Non-shrinkage.
- Chloride free.

TYPICAL PROPERTIES

Appearance: Grey granular powder

Specific Gravity: 2.3 g/cm³ - 2.4 g/cm³

Maximum Grain Size: 3 mm

Approx. Water Requirement (per 25 kg): 2.75 L - 3.38 L

Compressive Strength (BS 6319, Part 2):

3 days: ≥ 50 MPa

7 days: ≥ 70 MPa

28 days: ≥ 100 MPa

Note: Above results are based on 50 mm x 50 mm cube at 3.38 liters of water per 25 kg powder.

MIXING

It is recommended to use a mechanical grout mixer for optimal dispersion and workability when preparing the grout. Conventional or hand mixing methods may result in reduced workability. It is important not to exceed the maximum water content, as it can lead to a loss of desired properties. To prepare the grout, begin by mixing the dry powder (Component A) and adding 2.75 - 3.25 liters of water per 25 kg of powder gradually over 1 - 2 minutes. Then, incorporate the liquid bottle (Component B) into the mixture and continue mixing until a homogeneous mix is achieved.

APPLICATION

Surface Preparation

Ensure that all surfaces are clean and in good condition. Remove any surface laitance by either acid etching or grinding. Before starting the application, it is important to thoroughly wet all surfaces and maintain a moist condition during the placement process. Any excess surface water should be removed prior to applying the grout.

Application Instructions

EUNIGROUT HPG can be placed either by gravity flow or by using a pump. It is crucial to practice proper placement techniques on the job site to ensure a smooth and problem-free process. Sufficient labor, grout and equipment must be available to enable continuous placement.

1. Gravity

In the case of gravity flow, the mixed grout should be poured from one side of the void to avoid trapping air. It is recommended to pour the grout over short distances to ensure proper flow. Using a suitable header box and maintaining a consistent grout head will ensure continuous flow. To achieve effective grout compaction and ensure contact with the top plate, rodding, tamping, or flexible strapping can be employed in short strokes. It is important not to vibrate the grout as it may cause segregation. Additionally, any nearby machinery or equipment causing vibration should be temporarily shut down until the initial set of the grout (approximately 3 hours).

2. Pumping

When pumping EUNIGROUT HPG, it is important to use a pump that is suitable for the grout consistency as well as the distance and height required for pumping. A positive displacement pump is recommended for this purpose. During the pumping process, start by placing the grout into the farthest corner and gradually fill the space. It is crucial to ensure that no air is trapped under the base plate, as this can affect the performance of the grout.

CURING

Proper curing is crucial for all exposed surfaces, especially under dry and sunny conditions. Failure to adequately cure the surfaces can result in reduced bond, strength and durability. Fortunately, alternative methods of curing can be employed, such as water ponding, mist spraying, or using wet hessian. These methods help maintain the necessary moisture levels for optimal curing and ensure the desired performance and longevity of the material.

PACKAGING

EUNIGROUT HPG is supplied in 25 kg bags (Component A) and 200 g liquid bottles (Component B).

STORAGE

EUNIGROUT HPG should be stored and maintained in dry and cool conditions at temperatures between 2°C and 40°C.

The shelf life of EUNIGROUT HPG is 12 months from the date of production.

HEALTH AND SAFETY

For more information, please check the Material Safety Data Sheet.

CONTACT

Al-Faiha for Engineering Products is the exclusive licensee manufacturer for ECA.

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