EUNIGROUT 500

CEMENTITIOUS NON-SHRINK GROUT

DESCRIPTION

EUNIGROUT 500 is a premixed cementitious non-shrink grout that delivers exceptional performance at different consistencies. EUNIGROUT 500 is characterized by being non-gaseous, non-corrosive, non-oxidizing and free from chlorides and nitrates.

USES

EUNIGROUT 500 is suitable for a wide range of grouting applications where shrinkage is undesirable:

- Underplate grouting
- Machine beds
- Filling of shutter tie rod openings
- Precast concrete
- Effective for bedding bearing plates
- Anchor bolt fixing
- Cable grouting and crane rail assembly

ADVANTAGES

- Non-gaseous grout, free of bleeding, settlement and shrinkage, with long stability over a wide range oF temperatures and humidities
- Factory-blended and packed to eliminate site variations and errors
- Extremely fluid consistency for easy application in difficult access areas
- Excellent flow retention and long usable life, even at high ambient temperatures
- High, non-corrosive bonding to steel and concrete
- Excellent ultimate strength, even at fluid consistency
- Non-shrinkage characteristics

STANDARAD

Formulated to meet ASTM C 1107 and CRD C621 standards.

TYPICAL PROPERTIES	
Colour	Grey
Specific Gravity	2.1 - 2.3 g/cm3, Dependent on Consistency
Coefficient of Thermal Expansion	1.3 x 10 ^-5 ($°C^{-1}$)
Compressive Strength BS 6319, part 2, @ 20	≥ 27 MPa @ 1 day ≥ 40 MPa @ 3 days ≥ 42 MPa @ 7 days ≥ 48 MPa @ 28 days
Tensile Strength BS 6319, part 7	4.5 MPa
Bond Strength BS 6319, part 4	45.5 MPa
Flexural Strength BS 6319, part 4	≥ 7.5 MPa
Freeze/Thaw	50 Cycle - No weight loss
Restrained Expansion	+ 0.6% @28 Days
Water Absorption, Age	1 Hour : + 0.5%
Initial set (hours)	9
Final set (hours)	14

Note: Flexural strength and compressive strength results are obtained using a mixing ratio of 4.5 to 5 liters.

APPLICATION

Surface Preparation

Prior to application, it is important to ensure that all surfaces are clean and in good condition. Remove any surface Laitance by using acid etching or grinding methods.

It is recommended to thoroughly wet all surfaces 6 - 24 hours before starting the application and maintain a moist condition during the placing process. Any excess surface water should be removed prior to applying the product. This preparation ensures optimal bonding and performance of the material.

MIXING

For optimum dispersion and workability, mechanical grout mixers should be used. Adjust the water quantity based on the desired consistency; 3 liters for a thicker texture suitable for trowelling, or 4.5 - 5 liters for a more fluid consistency suitable for flowing.

Start by mixing the dry powder and gradually add the water over a span of 1 - 2 minutes.

Continue mixing for an additional 2 - 3 minutes until the mixture is smooth and cohesive. It is advisable to maintain consistent timings for each operation to achieve consistent results whenever possible.

Application Instructions

1. Under-plate grouting

Before starting to mix the grout ensure that the form-work is properly sealed to prevent grout leakage.

Sufficient material should be available to complete the entire task and achieve a continuous fill.

Its important to pour the grout from one side only so as to avoid air entrapment. make sure not to vibrate the grout, but rods, straps and chains can be use to assist the complete filling.

2. Patching floor/repair applications

Grout can be used for floor repair, the desired consistency can be achieved by adding 2.5 to 3 liters of water to the 25 Kg grout, to enhance the bonding between the substrate and the grout its recommended to use a bonding agent such as EURIPARE BA3, and the mixture is as below:

EUNIGROUT 500 : 50 Kg

EURIPARE BA3 : 4 Liters

WATER : 5 Liters

There is another mixture suggestion if you have large repairing area; you can up to 3mm gravel or granite chips to the 505 Kg grout, this will not affect the mechanical properties of the mixture.

Note:

When dealing with grout thickness exceeding 75 mm, it is advisable to add washed well-graded 10 mm aggregates into the mixture. This addition helps to reduce temperature rise during curing. The recommended ratio is a maximum of one part aggregate to one part grout by weight. Typical compressive strengths for this mixture is greater than 50 MPa @28Days**.**

3. Thin bed mortar

For meeting ANSI standards and for floor topping or leveling applications, it is recommended to combine EUNIGROUT 500 with EURIPARE BA9 bonding agent.

Here is an example of a suitable mixture:

EUNIGROUT 500: 50 kg

SAND (MEDIUM): 30 kg

EURIPARE BA9: 6 liters

WATER: 6 - 8 liters

Yielding: approximately 0.042 cubic meters of non-shrink polymer mortar.

CURING

Proper curing is crucial for exposed surfaces, especially in dry, sunny conditions. Failure to cure can reduce bond, strength and durability. Use alternative curing methods like water ponding, mist spraying, or wet hesian, ensuring maintenance for at least 7 days. Take special car e to cure in hot climates for maximum properties and service life. Keep the grout temperature above 8°C during application. The shelf life of EUNIGROUT 500 is 12 months from the date of production.

PACKAGING

EUNIGROUT 500 is supplied in 25 kg bags.

STORAGE

EUNIGROUT 500 should be stored and maintained in a dry area, free from moisture contact.

HEALTH AND SAFETY

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

CONTACT

For information regarding the licensee or manufacturer for ECA, please contact us at techsupport@alfaihaengineering.com.

DISCLAIMER

ECA aims to ensure the accuracy of information and recommendations in the product literature. However, due to variations in materials, substrates, and site conditions, and without control over product application, storage, weather, and usage conditions, ECA cannot be held liable for any resulting issues.