

POLY GROUT EP ANCHOR

Epoxy Resin Adhesive for Anchoring

Product Description

POLY GROUT EP ANCHOR is three component, solvent free (100 % solids), non-shrink, and corrosion resistant epoxy resin adhesive mortar. It is based on a combination of carefully selected high strength epoxy resin, well-selected curing agents and special filler. It is supplied as pre-weighed three component pack, which after mixing will produce non-shrink, excellent adhesion to concrete and masonry surfaces, chemical resistant, and high mechanical & physical epoxy bonding mortar.

Typical Application

POLY GROUT EP ANCHOR has been designed for successful application of

- Anchoring of bolts and bars into concrete, rocks and masonry.
- Structural bonding of carbon fibers & glass-fibers reinforcements to concrete, steel plates to concrete, concrete elements and bridge segments.
- Bedding bridge beams or steel bridge bearings.
- To fill bolt pockets (vertical & overhead).
- In repair of damaged concrete in areas subject to chemical attack.
- Bedding tiles, anti-acid tiles, and slip bricks to concrete .

Product Features

- Easy to mix and to apply.
- Solvent-free, odorless.
- Moisture insensitive.
- Non-sag in vertical & overhead applications.
- Shrink-free curing.
- Minimum creep.
- Chemical resistant,
- High strength & mechanical properties.
- Excellent adhesion to most substrates.
- High abrasion resistant, Impact resistant, and shock resistant.
- Formulated to be suitable for the Middle East Climates

Standards

POLY GROUT EP ANCHOR

complies with the requirements of ASTM C 881 : "Epoxy Resin Base Bonding Systems for concrete" Type IV Grade 3 Class B & C.

Properties

Appearance

Thyrotrophic grey viscous liquid (mixed materials)

Mixed Density

1.85+0.05 kg /liter

Pot Life

100 minutes @25 °C

Flash Point

> 150°C

Chemical Resistant

POLY GROUT EP ANCHOR is resistant to most of the common chemical reagents including water, sea water chlorides & sulphate and other corrosive salts, inorganic & organic acids, alkalis, petrol, oil, kerosene, etc.

For more details about specific Chemical reagent, consult **POLYCOO** Technical Support

Compressive strength

83 N/mm² (ASTM D-2566)

Tensile strength

25 N/mm² (ASTM D-638)

Flexural strength

40 N/mm²

The above typical results for samples cured after 7days@ 25⁰C

Bond strength, after 14 days cure

* To concrete (ASTM C-882)

14 N/mm² (concrete failure)

* To steel (ASTM C-882)

20 N/mm²

Water absorption, (24 hours),

0.2 % (ASTM D-570)

Elongation at Brea

2 % (ASTM D-638)

Linear Coefficient of shrinkage

0.005 cm / cm (ASTM C-844)

Heat Deflection Temperature,

50⁰C(ASTM D-648)

Coefficient of Thermal Expansion

43 x i&6 C (ASTM C580)

(Temperature range -20 to +60 C)

Note: The above tests are carried out under controlled laboratory conditions.

Guide for Applications

Surface Preparation

All surfaces shall be sound, clean, free from water, Oil & grease and other contaminants, which may affect the bond between **POLY GROUT EP ANCHOR** and the substrate.

Primer is not required. Steel bars should be free from rust and the metal surfaces should be treated to SA 2 ½

Mixing

Stir each component well before mixing to ensure that all the materials are dispersed. Pour the contents of Component B (Curing agents) to the container of Component A (Resin) and mix well until homogenous colour and consistency is achieved. Gradually add component C (filler) while mixing till homogeneous paste is achieved

(A mechanical mixer can be used with 400 - 500 rpm.)

Applications

If **POLY GROUT EP ANCHOR** is used for anchoring bolts or steel reinforcements, the mixed materials shall be injected to the rear of the hole avoiding air-entrapment. The thyrrotrophic nature of the mixed materials will prevent flowing out from the hole.

Cleaning

Clean all the tools and equipment with **POLYSOLVENT EP 20** immediately after use.

Storage

It should be kept in dry warehouse away from any extreme temperature.

Shelf Life

One year when stored as recommended.



Under technical collaboration with

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