

POLY BOND EP

Epoxy Resin Concrete Bonding Agent

PRODUCT DESCRIPTION

POLY BOND EP is two component solvent-free, medium viscosity, bonding agent, based on high strength epoxy resin and selected curing agents. **POLY BOND EP** produce a permanent bond between old and new concrete, stronger than cohesion forces within concrete.

TYPICAL APPLICATIONS

- **POLY BOND EP** provides a bond greater than the tensile strength of the concrete substrate between new and existing concrete.
- It forms a reliable glue line for permanent bonding stronger than the surrounding concrete.
- It can be used as a bonding agent on: concrete, mortars, bricks, steel etc.
- It can be used on both horizontal and vertical surfaces.

PRODUCT FEATURES

- Easy to mix and to apply.
- Solventfree.
- 100 % solids.
- Non-shrink.
- High bond and tensile strength.
- Excellent positive adhesion to the concrete and masonry surfaces.
- Moisture insensitive bonds well to dry and damp surfaces.
- Cures to a waterproof state, the cured film is impermeable to water.
- Medium viscosity forms a reliable glue line for bonding.
- Resistant to chemical attack.
- Formulated to be suitable for the Middle East conditions.

STANDARDS

POLY BOND EP complies with the requirements of ASTM C -881 Type II Grade 2 Class B and C.

PROPERTIES

Appearance

Grey liquid (mixed materials)

Specific Gravity

1.40 @ 20°C

Viscosity (mixed materials)

60 Poise @ 20°C

35 Poise @ 35°C

Pot Life

5 - 6 hours @ 20°C

3 hours @ 35°C

Full Cure

7 days @ 20°C

Flash Point

93°C

Physical Properties

Tensile Strength

28 N/mm² (ASTM D-638)

Elongation at break

3.7 % (ASTM D- 638)

Hardness, Shore D

83 (ASTM D- 2240)

Bond Strength (mean shear slant)

Cured 14 days

- On dry concrete

41.3N/mm² (ASTM C-882)

-On wet concrete

24.1N/mm² (ASTM C-882)

Linear Coefficient of shrinkage

0.005cm / cm (ASTM C-844)

Shear Strength

35 N /mm² (ASTM D-732)

Flexural Strength

45 N /mm² (ASTM D-790)

Compressive Strength

80 N /mm² (ASTM C- 579)

Water Absorption

(14 days curing and 24 hours immersion in water)

0.3% after 1 day (ASTM D-570)

Note

The data shown is based on controlled Laboratory conditions.

GUIDE FOR APPLICATION

Surface Preparation

All surfaces should be sound, clean and free from dust, oil & grease and the other contaminants, which may affect the bond between the substrate and the product. Cement laitance should be removed and the surfaces to be treated should be mechanically roughened.

MIXING

The contents of curing agents (Component B) should be emptied carefully into the resin (Component A) container mixed thoroughly till a uniform colour and consistency is achieved. Partial mixing is not recommended.

APPLICATIONS

After mixing, apply directly to the prepared substrate by brush or roller. On damp surfaces, ensure that it is brushed on. Pour new concrete within the specified time, while the materials is still tacky. Do not place concrete over **POLY BOND EP** dried layer, surface should be recoated.

CLEANING

Epoxy Materials are very difficult to remove when set.

Clean tools and equipment immediately after use with SOLVENT

PACKAGING

POLY BOND EP is supplied in two pre-weighted packs of 2.5kg - 5.0Kg total.

COVERAGE

It will be influenced by the porosity of the substrate but approximately 3 - 5 m²/kg.

STORAGE

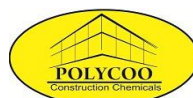
POLY BOND EP should be kept in dry warehouse away from extreme temperatures.

SHELF LIFE

12 months if stored as recommended in original container

HEALTH AND SAFETY

- Epoxy resins contain irritants, especially to the skin, eyes and respiratory system.
- Persons handling these materials should use appropriate protective clothing, including rubber or plastic gloves.
- If any epoxy resin contact the skin, it should be removed immediately with dry cloth or paper towel, and the area of contact washed thoroughly with soap and water.



Under technical collaboration with

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