

MITCHEBOND EP

Epoxy Bonding Agent For Structural Concrete

DESCRIPTION

MITCHEBOND EP is an epoxy resin structural bonding agent used for ensuring monolithic bond between old and new concrete and highly recommended for structural repair works.

ADVANTAGES

- **Ideal for structural repairs**
- **Monolithic bond**
- **Capable of transmitting very high stresses**
- **Excellent water & alkali resistance**
- **Can be applied on dry as well as damp surfaces**
- **Can be cured under moist / wet conditions**

FUNCTION

In epoxy modified systems, cement hydration and epoxy polymerization occur simultaneously. The hardened resin forms thin layers on the cement hydrate and binds the hydrates to form a network in which the epoxy phase interweaves through the cement hydrate phase. The epoxy system thus develops high strength and adhesion and has low permeability, good water resistance and chemical resistance.

USES

MITCHEBOND EP is highly useful for bonding fresh concrete to old concrete that is fully cured.

MITCHEBOND EP can be used to bond sprayed concrete/mortar to old concrete surfaces.

MITCHEBOND EP can be used on horizontal and vertical surfaces as a repair ingredient to corroded or spalled concrete.

MITCHEBOND EP is ideally suitable for:

- Jacketing applications for strengthening the existing concrete elements like columns, beams, basements etc.
- As a bonding agent for concrete repairs using cement plaster/screed and for guniting.
- As a waterproof joint in sandwich constructions.

TECHNICAL INFORMATION

Typical Engineering Data @ 70°F (21°C)

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|---|---------------------------------------|
| Compressive Strength (ASTM –C 882) | psi 7000 (50 N/mm²) |
| Tensile Strength (ASTM-C 882) | psi 2900 (20 N/mm²) |
| Flexural Strength (ASTM-C 882) | psi 5000 (35 N/mm²) |
| Shear Bond Strength (ASTM-C 882) | psi 3600 (25 N/mm²) |



OVERLAY TIME : 4-6 hours

POT LIFE : 30-60
Minutes at 35°C

METHOD OF APPLICATION

SURFACE PREPARATION

To obtain good adhesion, it is essential to have a clean and sound substrate. All laitance, oil, grease etc., shall be cleaned either by grinding, wire brushing, chipping, sand blasting or chemical etching.

MIXING AND APPLICATION

The base and hardener in the specified proportion shall be mixed to get a uniform color. The mixed material shall be applied on the prepared concrete surface with stiff bristled brush. The fresh concrete/cement mortar/guniting shall be carried out on a tack free surface which will be achieved within 30-60 minutes of application. The new concrete shall be applied within 4-6 hours' time. For getting best results, the water cement ratio of the new concrete shall be as less as possible.

CURING

Full curing takes around 5-6 days and it is absolutely essential that the repaired surface be cured properly.

COMPATIBILITY

MITCHEBOND EP is compatible with all types of concrete, cement based grouts, polymer modified cement systems etc.

COVERAGE

Depending on the surface condition, 1kg **MITCHEBOND EP** will cover 2 - 2.5m².

SHELF LIFE

12 months in sealed container if stored below 35°C

PACKAGING

Supplied in 5 Kg ready to use