

Techno Bond EP

Epoxy Resin based Concrete Bonding Agent

Product Description

Techno Bond EP is based on solvent free epoxy resins containing pigments and fine fillers. It is supplied as a two part material in pre-weighed quantities for ready onsite mixing and use. Coloured components - white base and green hardener - provide visual evidence that adequate mixing is achieved.

Uses

Techno Bond EPis used for bonding new cementitious materials to old cementitious surfaces. For use on horizontal and on vertical surfaces where mortar or concrete can be supported by formwork. Ideal for extensions and repairs to structural concrete in buildings, loading bays, bridges, roads, bonded or granolithic floor toppings etc. Recommended for cold joints in Concrete especially in basement raft and roof applications.

Advantages

- More overlay time: Enables to place the concrete upto 6hrs after applying Techno Bond EP, without risk of delamination
- High bond strength : Bond strength is more than the tensile strength of good quality concrete
- Barrier coat : Acts as a 'barrier coat' to the migration of chloride ions from host concrete.

Properties

Specific Gravity	1.15 - 1.2g/cc	
	at 20 ⁰ C	at 30°C
Pot Life	4hrs	
Full Cure	7days	5days
Overlay time	10hrs	6hrs
Compressive Strength BS 6319 Pt 2	@7days	50N/mm ²
Flexural Strength BS 6319 Pt 3	@7days	35N/mm²
Tensile Strength BS 6319 Pt 7	@7days	20N/mm²
Shear Strength BS 6319 Pt 4	@7days	10N/mm²

Adhesive strength to concrete: In general, the bond strength will always exceed the tensile strength of M30 concrete.

Design/Specification

Techno Bond EP is designed with an overlay time of 4hours at 30°C making it more suitable for use where additional steel reinforcement and formwork has to be fitted or where temperature is high. The minimum application temperature for Techno Bond EP is 10°C.

The bonding agent shall be Techno Bond EP an epoxy based two component resin system prepacked in distinct colours to give visual evidence for proper mixing. The bonding agent should remain in tacky state after application for a minimum period of 6 hours at 30 $^{\circ}$ C. There shall not be bond failure of the specimen when tested by slant shear method according to BS 6319 Pt 4, with M30 concrete.

Application Instructions

Preparation

All surfaces to be treated must be firm, dust free and clean. All laintence should be removed by etching with Techno Bar Treat RR and wire-brushing. In some cases, the existing concrete must be chipped to a sound substrate. Where surfaces are contaminated with oil or grease, this should be removed by using a strong industrial detergent or organic degreaser. Surface should be washed thoroughly with water and dried before the application of Techno Bond EP.

Priming

The entire contents of the hardener can should be poured into the resin container and the two materials thoroughly mixed until a uniform colour is obtained. To facilitate application at temperatures below 10 $\,^{0}\mathrm{C}$ the separate components should be warmed in hot water to a maximum of 25 $\,^{0}\mathrm{C}$ before mixing.

Coating

Mixed Techno Bond EP should be brush applied to the prepared surface. The new concrete should be placed within 6 hours at 30°C to the Techno Bond EP coated substrate, when it is in a tacky state.

Coverage

Approximately 2 - 2.2sqm/kg. Actual coverage will depend upon the texture and porosity of the substrate being covered.

Estimating

Packaging

Available in 1kg & 4kgs industrial packs.

Precautions & Limitations

Techno Bond EP should not be applied when the temperature is below 10 0 C. If any doubts arise concerning temperature or substrate conditions.

Health & Safety

Techno Bond EPsystem is non-toxic but alkaline in nature. Gloves and goggles should be worn while handling. Any splashes on the skin or eyes should be washed off with clean water. In the event of prolonged irritation, medical advice should be sought.

Fire

Techno Bond EP system is flammable. No naked flame should be allowed near the site. Do not smoke during use.

Shelf Life

18 months if stored under normal warehouse conditions below 35 °C, in unopened containers.

Important: Technokem products are guaranteed against defective materials and are sold subject to its standard terms and conditions of sale. It is the Customer's responsibility to satisfy themselves by checking with the Company whether the information is still current at the time of use. The customer must be satisfied that the product is suitable for the use intended. All products comply with the properties shown on current Technical Literatures. However, Technokem does not warranty or guarantee the installation of the products as it does not have any control over installation or end use of the product. All information and particularly the recommendation relating to application and end use are given in good faith.

For Complaints/Suggestions:
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