EPO BOND CF

Epoxy Special Development Steel, Metal & Carbon Fiber Adhesive

DESCRIPTION

This is a reinforcement system used for wrapping, strength increasing and flexure control. System components: Carbon fiber woven **EPO CARBOSHEET** and epoxy based saturation resin **EPO BOND CF**.

TYPICAL APPLICATIONS

- Used in the following cases to increase bending and sliding resistance of reinforced and amass structures
- Provides an increase in load bearing capacity
- The purpose of the building may be changed
- Repair of structural damages
- Preventing the damages after an earthquake
- Reinforcement of structures according to alterations in standards and specifications

ADVANATAGES

- Provides an increase in ductility under seismic loading Versatile use as reinforcement bar against bending or sliding
- Easy use of the thixotropic and no-solvent containing saturation resin Flexible surface geometry (beams, columns, stacks, piles, walls)
- Provides higher strength against dynamic loading and impact stresses
- Reduces flexures due to service loads (increase in rigidity)
- Resistance against chemical and environmental conditions (no corrosion risk)
- Roll size of required width for an easy application Thin lining even if woven layers are laid on one another (3 layers may be applied in bending section reinforcement)
- Fiber direction can be adjusted according to need

PRODUCT DATA

Form	Epoxy Resin
Colour	Grey
Packing	10 Kg (A+B) - (A) 8 Kg ,(B) 2 Kg
Consumption	2 Kg/m² (1-2 mm thickness)
Shelf Life	12months, indoor storing non-open packaging under controlled condition

TECHNICAL SPECIFICATION

Test Name	Average Result
Density	1.72 Kg/Ltr
Bending Strength 7 days @ 23^{0}C	30 N/mm²
Compressive Strength BS EN 12190 7 days @ 23^{0}C	45.3 MPa
Adhering onto Concrete BS EN 1542	3.98 N/mm²
Adherence on steel BS EN 12188	17.4 N/mm²
Tensile Strength	20 N/mm²

APPLICATION PROCEDURE

SURFACE PREPARATION

Surface preparation is performed by means of sanding and mechanical methods, until intact concrete is reached. Measuring the concrete surface strength and pH, sufficient adherence preliminary conditions are determined. The dust, loose particles etc. on the surface should be cleaned using vacuum dust cleaning machines. The surface should be clean and free of oil, burrs, paint and plaster and dry (maximum humidity of the surface is 4%).Right after surface cleaning, application should be started.

Application Cutting: **EPO CARBOSHEET** can be cut using a very sharp special scissors or knives. It never should be folded nor should it be stored under sunlight or humid environments. The surface of adhesion should be level. Form signs should not be more than 0.5mm. Larger surface corruptions are leveled using **EPO BOND FD**.

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Ver 01/18

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Minimum tensile strength of the surface to be reinforced should be 1 N/mm^2. The 90^0 corners should be rounded so that their minimum radius is 10 mm. This operation should be performed using a diamond disk tool, without damaging the concrete.

MIXING

First, mix the two components of the material in their own containers. Then add the component B into component A using a spatula. With an electrical mixer, mix for 3 minutes until obtaining a homogenous mixture. Pour the entire mixture into another clean container and mix for about 1 minute at low speed, keeping air drag at minimum.

At low temperatures, working period is longer, while it is shorter at higher temperatures. Larger the quantity of material mixed, less the working time. In order to obtain a longer working period at higher temperatures, the mixed materials can be divided into small parts or both components can be cooled before mixing.

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