CP 4000

Go to TDS

Mortars

CARBON PLATES FOR STRUCTURAL STRENGTHENING.

PRODUCT DESCRIPTION

Prefabricated tiles that consist of 100% one-way carbon fiber, found in an epoxy resin matrix - In combination with CP 40 forms a composite material - Strengthening of concrete structural elements - Allows vapor diffusion - Ensures high tensile and flexural forces.

LIMITATIONS

· Not be used on wet surfaces.
· Not be used on dirty or crumbling surfaces.

FIELD OF APPLICATION

Carbon tiles CP 4000 are used as external reinforcement, for outdoor adhesion and bonding of structural elements with the epoxy resin CP 40, for the increase of mechanical forces of beams and concrete columns, for the improvement of the connection of columns by: Strengthening structures with high resistances to seismic movements - Protecting and strengthening concrete elements from corrosion. - Increasing cargos, until the change of usage destination - Repairing concrete structures after damage from earthquakes. Strengthening with composite materials can be applied to concrete, wood and steel elements and retaining walls.

APPLICATION PROCEDURE

A) Preparation of the support
The surface must be free of detached parts, plaster, paint, oil or grease. After thorough cleaning, the surface is roughened by a metallic brush. - Existing cracks in the concrete should be repaired by injections with EPOINJECT products. - External corners must be rounded to a radius of 10 - 30 mm. - Surface should be as flat as possible. Any superficial defects should be repaired using Epo Primer ST.

B) Applying the product
Firstly, apply CP 40 on the surface which will be treated. Then, CP 4000 is put carefully on the surface. Tiles are slowly applied by a special plastic roller in order to achieve a better contact with the surface, complete impregnation and removal of air bubbles. Tile direction should follow the direction of elastic forces and its fibers should be as straight as possible.
• If more than one layer of application is

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needed, the above-mentioned process is repeated. In this case, the previous layer should not be completely dry; otherwise, you should roughen the surface again.
• Following that, the fabric layer is covered on the outside wit CP 40 and then, quartz sand is poured on the layer, as long as it is still fresh, in order to apply later a protective, cement-based layer (plaster).
• If more than one layer of fabric is specified, repeat the above-mentioned process. In this case the previous layer should not be completely dry otherwise rubbing is necessary before starting the new application.
• Then, the last fabric layer is brushed off from the outside with CP 40 and then quartz sand is placed on the resin layer which is still wet, so as later to apply a protective, cement-based layer (plaster).

SHELF LIFE

Original sealed bags of this product are guaranteed to be of first quality for 24 months if stored off of the ground in a dry area. High humidity will reduce the shelf life of the bagged product.

SAFETY INSTRUCTION

CP 40 is an article referring to the current European regulations (Reg. 1906/2007/CE - REACH) that does not require the preparation of the Safety Data Sheet. During the use, it is recommended to wear gloves and goggles and follow the safety requirements of the workplace. PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA	
Product identity	
Tensile strength (MPa)	2800
Modulus of elasticity (GPa)	163
Ultimate strain (%)	1,60
Density (g/cm3)	1,60

EMISSION CLASS FOR BUILDING MATERIAL
M1

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