

EPO CARBOPLAK

Carbon Fiber Plate



DESCRIPTION

100% single direction carbon fiber reinforced plate, condensed with epoxy resin. **EPO CARBOPLAK**, our carbon fiber reinforced product, is a structural reinforcement system which should be used with **EPO BOND SC** epoxy based adhesive mortar.

STANDARD PRODUCT TYPES

High resistance, Very high resistance, density tensile resistance, stress module, yielding elongation, shear strength, thermal expansion

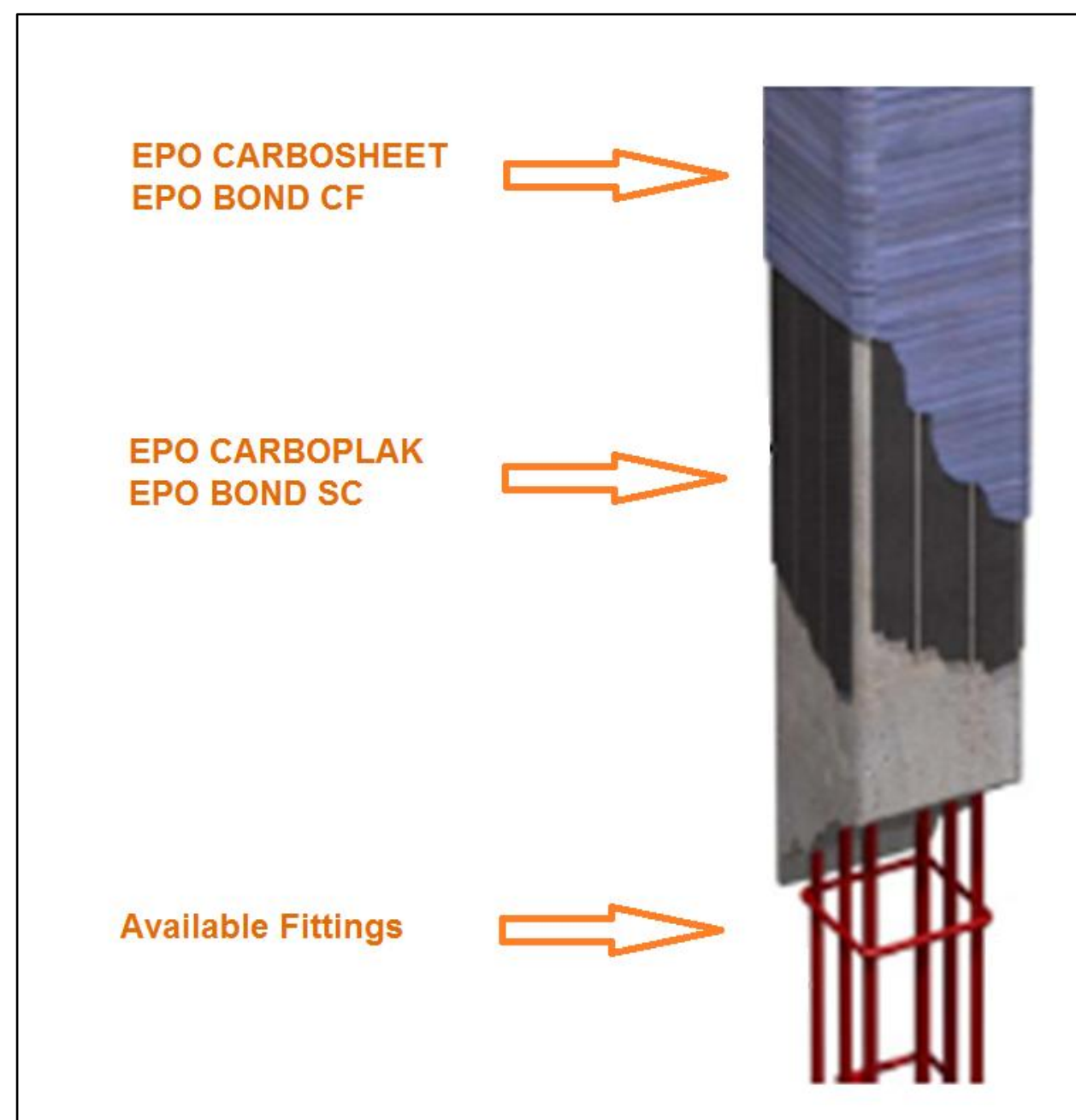
TYPICAL APPLICATIONS

EPO CARBOPLAK is used at the carbon fiber reinforced plates, any reinforced concrete structural components that is required in reinforcement design, section reinforcement and component support capacity increases, reinforced concrete building and bridge beams, for the purpose of increasing bending and breaking strength, and for the supporting section longitudinal and shear to the lower section of the beam component under tensile forces, with **EPO CARBOPLAK L** angle plates, laying in the form of bandage. In reinforced concrete and circular silos, serving as the circular bandage reinforcement, wrapping over the silo surface, or if required by the design, as the longitudinal reinforcement addition.



PRODUCT DATA

Standard Plate Type	Width (mm)	Thickness (mm)	Minimum Section (mm ²)	Weight (gm/m)
HA 2000, HR 2500 THR 3000, HM 200, HM 250	50	1.2	60	97
	80	1.2	96	155
	100	1.4	140	226
	120	1.4	168	270
	150	1.4	210	368
THM 300, THM 400	50	2	100	182
	100	2	200	364
	100	4	400	728
	140	4	560	1014



TECHNICAL SPECIFICATION

Test Name	Unit	HR 2000	HR 2500	THR 3000	HM 200	HM 250	THM 300	THM 400
Density	gr/cm ³	1.54	1.61	1.61	1.56	1.61	1.8	1.82
Tensile Strength	MPa	2000	2500	3100	3300	2500	1500	1500
Stress Module	GPa	155	165	170	200	260	310	450
Breakage Elongation	%	1.3	1.5	1.9	1.65	0.95	0.48	0.34
Sheer Strength	MPa	81	77	77	79	79	65	65
Thermal expansion	m/m/c ⁰	0.6x10 ⁻⁶	0.6x10 ⁻⁶	0.6x10 ⁻⁶	-0.4x10 ⁻⁶	-0.4x10 ⁻⁶	-0.4x10 ⁻⁶	-0.4x10 ⁻⁶

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APPLICATION PROCEDURE

PREPARATION

The most critical safety issue as for the functionality of the carbon plate application is the cleanness of the plate surface prior to application. In the other carbon fiber reinforced plate products available in the market, plate surface cleanness is performed by wiping the surface of the plate with conventional methods. The **EPO CARBOPLAK** plates do not need any cleaning. The **EPO CARBOPLAK** is manufactured with the protective film layers that protect it from outer influences and preserve its cleanness since it was produced. These both provide a saving of labor and excellent adhesion of the plate surface on the concrete surface.

Furthermore, since the **EPO CARBOPLAK** plate surface has been roughened in the process of manufacturing after taking off the film layer, the plate adheres on the concrete surface with very much strength. The protective film layer on the surface of the **EPO CARBOPLAK** plate is taken off prior to application thereby keeping the plate surface clean prior to application even at very dirty environment. The protective film layer on the outer surface of the **EPO CARBOPLAK** plate adhered to the concrete surface provides cleanness of the first plate layer which is already adhered to the concrete until application of other plate layers and it is taken off prior to application.

For the designs where second or third layers are not required, the protective film layer on the plate may be left after application of the **EPO CARBOPLAK** layer to the concrete surface for the purpose of reducing damage of any impact.

SAFETY PRECAUTIONS

As with all construction chemical products, adequate precautions and care must be taken during usage and storage. Avoid direct contact with foodstuff, eyes, skin, and mouth. Keep away from children and animals. Any direct contact with skin, eyes, etc. should be washed thoroughly with clean running water and soap. Use proper safety wear, goggles, and mask, etc.