FRP STRENGTHENING SYSTEM WITH CARBON FIBER

C-BAR

fka Ruredil X Bar

Pultruded carbon fiber bar with improved adhesion for FRP structural strengthening

C-BAR is a connection system consisting of pultruded bars in improved carbon fiber, obtained by sandblasting, with differentiated diameters to meet different structural needs.
It is especially used in shear and bending reinforcements of concrete or masonry structures.
It guarantees an effective and safe anchorage to any type of substrate, allowing the rigidity of the structure to be increased to the service loads and increasing the load-bearing capacity of the reinforced structure.

THE SYSTEM IS MADE UP OF:

C-BAR

Pultruded carbon bar with improved adhesion available in the following versions

- Ø 7,5 mm (3 m bar);
- Ø 10 mm (3 m bar);

C-RESIN JOINT

Special epoxy resin with high adhesive power for the application of C-BAR bars.

TECHNICAL CHARACTERISTICS

PROPERTIES OF THE PULTRUDED CARBON BARS	C-BAR 7,5	C-BAR 10,0
Nominal diameter (mm)	7,5	10,0
Minimum guaranteed section (mm^2)	44	78
Fiber section (mm^2)	26	47
Tensile strength (MPa)	1800	1800
Tensile modulus (GPa)	130	130

PROPERTIES OF THE ADHESIVE	C-RESIN JOINT
Catalysis ratio (A:B)	2:1
Specific weight (A + B)	0,90 - 0,96 kg/liter
Workability (EN ISO 9514) at 23°C	25 minutes (on 150g mass)
Compressive strength (ASTM D965)	≥ 50 MPa
Adherence/bond strength (EN 12188)	≥ 16 MPa
Reaction to fire (EN 13501-1)	Euroclass E
Glass transition temperature (DSC ISO 11357-2)	+45 °C
SPECIFICATIONS FOR THE SUPPLY	
Resin package	4 + 2 kg buckets (A + B)
Consumption	Approx. 1.5 kg/liter of volume to be filled