

Technical Data Sheet

Date of Issue: 1st May 2020

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Product Name: RELINFORCE C Fab 450

Carbon Fabric for FRP Structural Strengthening

Description

Unidirectional Carbon fabric of 450 GSM for Structural Reinforcement System

Application Areas

- Structural strengthening, restoration, reconstruction, repair, seismic retrofitting of reinforced concrete/concrete, masonry, metal (Steel), Wood constructions.
- Increasing the load capacity of reinforced concrete/concrete, masonry, metallic and wooden structures (including complex geometric shapes, as well as in confined spaces) without increasing their weight.
- Increased seismic resistance.
- Structural strengthening of bridges.

Features & Benefits

- Wide range of application
- Lightweight, system does not create an additional load on construction
- Corrosion resistance
- Minimum labor and time spent on work
- Low transportation cost
- Ability to perform repair without interrupting the operation of buildings or structures
- No additional costs for further operation

Properties of RELINFORCE C Fab 450

Fiber type	High Strength CF
Width, mm	500
Aerial weight, g/m ²	450 ± 5%
Fiber Direction	0°
Weaving style	plain
Warp	12 K / 24 K Carbon
Weft	Glass Fiber (Thermo fixed)
Tensile Strength of Fiber, MPa	≥ 4900
E-Modulus of Fiber, GPa	≥ 250
Elongation of Fiber, %	> 2.1
Fibre Density, gm/cc	1.8 ± 0.05
Tensile Strength composite laminate, MPa [ASTM D3039]	≥ 700*
E-Modulus composite laminate, GPa [ASTM D3039]	> 50*
Consumption of RELINFORCE Fab S (in kg/m ²)	~ 0.45

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** Composite laminate properties obtained on specimens (cured at 23°C, 7 days) of 1 layer of carbon fabric impregnated by RELINFORCE Fab S epoxy resin.*

Packaging Size

RELINFORCE C Fab 450 is supplied in 50M Roll Length in 1 cardboard box

Shelf Life

NA

Precaution

Precaution to be taken that it is kept in roll form only.

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