

# eile CARBOFRP

## Carbon Fiber Plates for Structural Reinforcement

### Description

High-strength, lightweight carbon fiber plates used for structural strengthening.

### Areas of Use

- Increasing the load-bearing capacity of floors and beams
- In cases of load increases, such as the installation of heavy machinery or changes in the building's use
- Reducing stresses in steel reinforcement when structural elements are damaged
- Reducing crack widths and improving conditions
- Addressing structural changes, specification updates, or design and construction flaws, such as insufficient reinforcement

### Product Features

- High strength and durability
- Lightweight and manufactured in unlimited lengths, eliminating the need for joints
- High resistance to alkalis
- Easy to install across intersections of plates
- Easy to mount, can be applied in layers
- Available in various combinations of high strength and elasticity modulus

### Range of Products

Product name	Width ( mm )	Thickness ( mm )
C-01	100	1,4
C-02	100	1,2
C-03	50	1,4
C-04	50	1,2

### Packaging

Supplied as plates cut to the desired length.

### Storage

Store in dry environments, away from direct sunlight.

### Shelf Life

3 years.

### Application

#### Surface Preparation

**Concrete and Masonry:** The surface should be solid, dry, and clean, free of grease, ice, oils, old coatings, curing compounds, and all loose materials. The concrete should be cleaned, and any surface contamination removed, ensuring an open-pore, cement slurry-free surface.

**Wood Surfaces:** The surface should be smoothed using methods such as sanding or sandblasting. Dust should be removed using a vacuum.

**Steel Surfaces:** The surface should be cleaned using sandblasting at SA 2.5 grade to remove oils, rust, and other contaminants that could reduce adhesion. The material should be applied with a spatula onto pre-prepared carbon fiber plates in a thickness of 1-1.5 mm. Then, the adhesive-backed carbon fiber polymer plates should be slightly tensioned in the fiber direction and fixed to the surface. After this, press the plates in the fiber direction to ensure there are no gaps between the carbon plates and the concrete surface. The second layer should be applied within 1 hour, or after waiting 12 hours.

NOTE: The amount of material required varies depending on the plate width, the smoothness of the surface, and the intersection points of the plates.

### Consumption

Plate width	eile EPX 33
50 mm	0,35 kg/m <sup>2</sup>
100 mm	0,80 kg/m <sup>2</sup>

### Technical Specifications

**Appearance:** Polymer reinforced with carbon fiber within an epoxy matrix

**Colour** : Black

**Tensile strength** : 3100 Mpa

**Tensile module** : 165 Gpa

**Elongation at break min.:** % 1,5

**Density** : 1,5 gr/cm<sup>3</sup>

**Thermal resistance** : > 150 °C

**Volumetric fiber content** : > % 68

# **eile CARBOFRP**

**Safety Recommendations:** Please wear the coveralls, protective gloves, glasses and mask suitable for occupational health and safety. Make sure that it does not contact the skin and the eyes; in case it does, wash with plenty of water. In case swallowed, contact the closest health care institution immediately. Keep out of the reach of children. Keep food and drinks away from the application areas.

**Responsibility:** In case the recommendations and application conditions specified above are not conformed, the applications (misuse) do not fall under the responsibility of **POMZA EXPORT A.Ş., the producer of eile POMEX branded products**. The user is responsible for whether the product is used in accordance with its purpose, as well as the validity of application conditions and forms. **eile Pomex Construction Chemicals** does not accept any indemnity claim concerning the results, work accidents, direct or indirect damages or losses due to the misapplication of the products.

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