

## Chelfix Plate

### Carbon Fiber Plate



**Product Description** A form of epoxy-impregnated carbon fiber strip, cured in unidirectional term and packed in a roll.

#### Areas of Usage

- In slabs, girders and bridges where the carrying capacity is to be increased,
- In the column strengthening,
- In the sagged upholstery,
- In bridges with load increments,
- In the seaming beams and balconies,
- In the colonies that lack access,
- In the repair of damaged building elements,
- It is used for repairing cut slabs.

#### Features and Benefits

- The application is very easy and fast, the possibility of workmanship is very low.
- Sold as 100 meter ready-made rolls.
- The tin plate or spiral can be used to cut it as far as necessary.
- It is very thin, it does not increase the section if it is too thin.
- It has very high tensile strength.
- The modulus of elasticity is too high.
- The chemical resistance is excellent.
- It has excellent fatigue strength.

#### Application Instructions

**Surface Quality:** The surface of the application should be free from all kinds of dust, dirt, weak and volatile particles, cement grout residues, oil and dirt and be dry. Concrete bottom surface should be clean, strong and have sufficient compressive strength (at least 25 N/mm<sup>2</sup>), its pull-off strength should be at least 1.5 N/mm<sup>2</sup>. Concrete should be strong and have sufficient strength.

**Surface Preparation:** The application surface should be cleaned using methods such as applying compressed air to maintain maximum adhesion strength. Weak concrete parts should be repaired and restored with high strength repair mortar. CHELFIX PLATE's adhesive part of the concrete is gently wiped with Tekno Thinner. There should be no thinner damp on the plate.

**Application Method / Equipment:** Prepared mixture is applied to both concrete and CHELFIX PLATE with a spatula. In CHELFIX PLATE (carbon plate) applications, the material is glued so that there is no air gap after the material is expected to attract itself for a while. Flat rollers or rolls are used over carbon fiber to ensure good adhesion. The epoxies on the surface are cleaned.

Carbon fibers do not burn but epoxy can ignite after a certain temperature. Because of this reason, very thin epoxy is applied on the carbon plate, then the sand is spread in dry condition and plaster is applied on it. Spreading sand provides adherence between the carbon plate and the plaster to be built.

#### Application Notes / Restrictions

- The material only runs in the fiber length direction. There is no resistance side by side.
- The product may irritate skin. Work clothes, protective gloves, masks and glasses must be used. Before starting to work, hand protection cream can be applied. In case of grout contact with eyes, eyes should be washed immediately with warm water and consult a doctor.

- Before the application, the design of the reinforcement project must be done by a civil engineer.
- The application should be made by experienced and competent persons.
- The final check of the application should be performed by the universities / independent testing organizations / inspectors.
- Immediately after application, before hardened, the equipment should be cleaned with THINN ER. The hardened epoxy mortar can only be mechanically cleaned.

## Technical Data

General Information	
Color	Black
The	5 cm and 10 cm
Height	100 m roll
Thickness	1.2 mm -1.4 mm
Density	1,50 kg/lt
Shelf Life	Unlimited in Dry Storage Conditions
Flash Point	180 °C
Tensile Strength	≥ 2,800 MPa
Modulus of Elasticity	≥ 165,000 MPa at rupture
Elongation at Break	1.4%