

Teknowrap 300

300 gr/m² Unidirectional Carbon Fiber Fabric



Product Description	Carbon fibers are one of the most stongest materials known in the world. Although carbon fibers in fabric fineness is 14 times stronger than the STL steel against tensile, its weight is around one fifth of steel. The fibers, which are normally in yarn softness, are easily brought to the desired shape and become rigid when laminated with special epoxy resin (TEKNOBOND 300 TIX).	
Areas of Usage	 Repair of medium and lightly damaged columns and beams, Corrosion damaged, repairing bridge, viaduct, column and beams. In the repair of historical monuments, mosque dome and minarets. Used in function changes. Places where there is a problem in concrete quality are used after the static project is done. 	
Features and Benefits	 When it's wrapped around the stirrup tightening areas of the column, it acts an additional stirrup. Increase the cutting capacity of the column. Increases vertical transport capacity when wrapped around circular columns. It prevents the wall from being scattered in any kind of wall, in the face of impact and explosion. When the column is completely wrapped, the stretchability of the column increases in great extent, so there is no breakage in the columns even at larger oscillations. The most obvious advantage of the carbon fiber repair method is that it can achieve a multiple of the robustness achieved with conventional methods, even though it adds only a few millimeters of thickness. Stronger than steel but much more lightweight, no corrosion problem. It can easily take shape. 	
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 ²), its pull-off strength should be at least 1.5 N/mm ² . 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. The plaster on the construction element must be removed, the surface must be cleaned, and necessary repairs should be made. TEKNOWRAP 300 is cut and made ready for application. The prepared TEKNOBOND 300 TIX is rubbed to concrete. It is then brought onto the TEKNOWRAP 300 to ensure that the epoxy is adhered to the carbon by hand. In adhesion process, the underlying epoxy is ensured to come out with a slight knurled roller. If the epoxy is insufficient, the TEKNOBOND 300 TIX is again used to fill the carbon fibers with epoxy. 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 carbon fiber and plaster.	



Application Notes / Restrictions	TEKNOWRAP 300 systems should be implemented by specialist practitioners Prior to application, the design of the strengthening project must be made by a civil engineer It must be projected and held accountable. Final check of the application must be made by universities / independent testing organizations
	/inspectors.

Technical Data

General Information		
Color	Black	
Structure of Material	Carbon	
Unit Weight	300 g/m ²	
Package	50 cm x 100 m roll	
Shelf Life	Unlimited in Dry Storage Conditions	
Nominal Wall Thickness	0.17 mm	
Performance Information		
Tensile Strength	≥ 4,900 MPa	
Modulus of Elasticity	≥ 230,000 Mpa	
Elongation at Break	2.1%	