NANOPUL SERIES - Carbon Laminate Products

Pultruded carbon fiber plates for structural strengthening applications;

Our laminates are high strength carbon fiber reinforced polymer (CFRP) plates designed for strengthening concrete, timber and masonry structures.

Where to use:

To strengthen structures for:

Load increase:
Increasing the capacity of floor slabs and beams
Increasing the capacity of bridges to accommodate increase axle loads
Installation of heavier machinery
Stabilising vibrating structures
Changes of building use

Damage to structural elements:
Deterioration of original construction materials
Steel reinforcement corrosion
Vehicle impact
Fire
Earthquakes

Service improvements:
Reduced deflection
Stress reduction in steel reinforcement
Crack width reduction
Reduced fatigue

Change in structural system:
Removal of walls or columns
Removal of slab sections for openings

Change of specification:
Earthquakes
Changed design philosophy

Design or construction defects:
Insufficient / inadequate reinforcement
Insufficient / inadequate structural depth

Istanbul Technical University Technopark, Student Automation Building, -1 Floor, No.2-2, Sarıyer, 34469, Istanbul / TURKEY

Tel: +90 533 433 75 48 **Fax:** +90 212 285 34 27 **E-mail:** info@nanokomp.com.tr

Properties:

Our laminate products have provided an outstanding combination of properties such as;

- Lightweight
- Superior Mechanical Properties (Combinations of high strength and modulus)
- Non Corrosive
- Excellent durability
- High Fatigue Resistance
- High Alkali Resistance
- Ability of Long Length Production
- Easy handling
- Easy installation
- Cost Effective Repair

Types of Product:

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

* Supplied in rolls of 50, 100 and 250 m.

Storage and Shelf Life:

Do not expose direct sunlight.
Dry storage recommended.
3 years.

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Technical Data:

Property	
Fiber Type	Carbon
Matrix Resin Type	Epoxy
Fiber Volume Fraction	73 %
Tensile Strength (MPa)*	3100
Tensile Modulus (GPa)	183
Ultimate Elongation (%)	1,69
Density (g/cm^3)	1,64
Colour	Black

*Tensile tests were performed at Istanbul Technical University according to the ASTM D3039/3039M-08 standard.

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