

Carbon Fiber Reinforced Polymer Laminate Product Data Sheet

Material Details

Grade:	CFRP
Description:	Carbon Fiber Reinforced Polymer Laminate
Body Colour:	Carbon Black
Cover Colour:	Carbon Black
Finish:	Satin/Glossy/Matt
Size:	600mm x 600mm, 500mm x 500mm Thickness Range: 0.8mm – 12.00mm

Typical Applications

- Automotive monocoque chassis.
- Wind turbine blades.
- Bicycle frames.
- Drone propellers.
- Prosthetic limbs.
- Surgical instrument handles.
- Train bogies.
- Laptop shells.
- Reinforcement wraps for concrete columns.

General Properties

Property	Unit of measure	Typical Value
Density	g/cm ³	1.585
Moisture Absorption	%	0.477

Mechanical Properties

Property	Unit of measure	Typical Value
Flexural Strength	MPa	730.63
Flexural Strength (after conditioning at 180°C)	MPa	653.47
Tensile Strength	MPa	790.19
Tensile Strength (after conditioning at 180°C)	N/mm ²	823.30
Impact (Notched CHARPY)	kJ/m ²	4
Compressive Strength	MPa	220.46
Compressive Strength (after conditioning at 180°C)	MPa	197.35
Interlaminar Shear Strength (ILSS)	N/mm ²	45.83
Interlaminar Shear Strength (ILSS) (after conditioning at 180°C)	N/mm ²	44.09

Thermal Properties

Property	Unit of measure	Typical Value
Thermal Rating Continuous	°C	100
Thermal Rating Intermittent (short term exposure)	°C	180-250