

Property	Specification / Value	Standard / Note
Product Name	3mm Carbon Fiber Sheet	Also called: 3mm Carbon Fiber Plate / Panel / Laminate
Material Type	100% Carbon Fiber (Toray T300 / T700 grade)	No fillers or fiberglass core unless specified
Resin Matrix	High-performance Epoxy (optional: High Temp / UV resistant)	Thermoset resin system
Weave Pattern	3K Plain Weave / 3K Twill Weave (customizable)	3K = 3,000 filaments per tow
Thickness	3.0 mm $\pm$ 0.15 mm	Custom tolerances on request
Standard Sheet Sizes	200x300 mm, 400x500 mm, 500x600 mm, 1000x1000 mm, 1200x2400 mm	CNC cutting service available
Surface Finish	Glossy / Matte / Textured / Sanded	Single-sided or double-sided finish
Fiber Volume Content	$\geq 60\%$	ASTM D3171
Tensile Strength	≥ 600 MPa	ASTM D3039
Tensile Modulus	≥ 60 GPa	ASTM D3039
Flexural Strength	≥ 500 MPa	ASTM D790
Flexural Modulus	≥ 55 GPa	ASTM D790
Compressive Strength	≥ 450 MPa	ASTM D695
Interlaminar Shear Strength	≥ 60 MPa	ASTM D2344
Density	~ 1.55 g/cm ³	Lightweight & high strength
Glass Transition Temperature	120° C - 180° C	Depends on resin system
Thermal Conductivity	6 - 10 W/m • K (in-plane)	Ideal for heat-sensitive applications
Electrical Conductivity	Conductive in-plane, insulating through-thickness	Suitable for EMI shielding
Coefficient of Thermal Expansion	-0.5×10^{-6} /° C (in-plane)	Low thermal expansion for dimensional stability
Fire Retardant Option	Available upon request (resin modified to meet UL 94-V0)	Optional
Water Absorption	< 0.1% (24h immersion)	ASTM D570
Machinability	Excellent (CNC, laser, waterjet compatible)	Dust protection required during processing
Available Customizations	Drilled holes, countersunk, threaded inserts, colored surface layer	MOQ may apply
Certifications	ISO 9001 / REACH / RoHS Compliant	Factory QC test reports available
Typical Applications	Drones, RC Hobby, Racing Cars, Robotics, Aerospace Brackets, Machine Covers	Structural or visual-grade use

