

Property	Specification / Typical Value	Standard / Notes
Product Name	3K Carbon Fiber Sheet	Also known as: Carbon Fiber Plate / Panel / Laminate
Weave Pattern	3K Plain Weave / 3K Twill Weave	3K = 3,000 filaments per tow
Material Composition	100% Carbon Fiber (Toray T300 / T700 / Equivalent)	No fiberglass or filler unless specified
Matrix Resin	Epoxy / Vinyl Ester (High Temperature Grade Available)	UV-stabilized and thermoset resin
Fiber Volume Ratio	≥ 60%	Measured per ASTM D3171
Thickness Range	0.2 mm - 50 mm	Custom thickness available on request
Available Sizes	200x300 mm, 400x500 mm, 500x600 mm, 1000x1000 mm, 1200x2400 mm	Tolerance: ±0.2 mm (cut edges)
Surface Finish	Glossy / Matte / Sanded / Mirror Finish	One-side or double-side options
Tensile Strength	≥ 600 MPa	ASTM D3039, along fiber direction
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/cm³	Lightweight material
Thermal Conductivity	6 - 10 W/m • K (in-plane direction)	Varies by fiber type and thickness
Glass Transition Temp. (Tg)	120° C - 180° C	Dependent on resin system
Coefficient of Thermal Expansion	-0.5 × 10 ⁻⁶ /° C (in-plane)	Negative CTE advantageous for precision uses
Flame Resistance	Available with Fire-Retardant Resin System	UL 94-V0 options on request
Electrical Conductivity	Conductive (in-plane direction)	EMI shielding applications
Machinability	Excellent with CNC / Waterjet / Laser	Protective mask recommended during cutting
Certifications	ISO 9001 / REACH / RoHS / ASTM Compliant	Test reports provided upon request
Applications	Aerospace, Drones, Robotics, Motorsport, Industrial Machinery, Medical Devices	Structural and decorative use