

Property	Specification / Typical Value	Standard / Notes
Product Name	Carbon Fiber Fabric Cloth	Also referred to as carbon fiber textile
Fiber Type	PAN-based Carbon Fiber (T300, T700, or equivalent)	Aerospace/industrial-grade options
Yarn Size / Tow Count	1K, 3K, 6K, 12K, 24K	3K most commonly used for general-purpose applications
Weave Pattern	Plain Weave / Twill Weave / Satin Weave	Customizable based on application
Weave Style Description	Plain: flat, stable; Twill: drapable; Satin: high gloss	2×2 twill and 4HS satin are common
Areal Weight	160 – 600 g/m <sup>2</sup> (4.7 – 17.7 oz/yd <sup>2</sup> )	Most popular: 200, 240, 280, 300 g/m <sup>2</sup>
Fabric Width	1000 mm / 1200 mm / 1500 mm (customizable)	Tolerance: ±5 mm
Roll Length	50 meters per roll (standard)	Other lengths available upon request
Fabric Thickness (dry)	~0.2 mm – 0.5 mm	Dependent on weave and weight
Resin Compatibility	Epoxy, Polyester, Vinyl Ester, Phenolic	Suitable for hand lay-up, vacuum infusion, prepreg
Tensile Strength	≥ 3400 MPa (49.3 ksi)	Based on ASTM D3039 (fiber only)
Tensile Modulus	≥ 230 GPa (33.4 Msi)	ASTM D3039
Elongation at Break	~1.5%	Low elongation—high stiffness
Fiber Density	1.76 g/cm <sup>3</sup>	Consistent with PAN-based carbon fibers
Electrical Conductivity	Excellent	Conductive along fiber axis
Thermal Resistance	Up to 180 ° C (dry fabric); 120 – 180 ° C with cured resin	Resin-dependent
Surface Type	Dry Fabric (standard), Prepreg Fabric (optional)	Hot-melt epoxy prepreg available
Volatile Content	< 0.5%	For dry fabrics
Drapeability	Excellent for curved or contoured molds	Especially twill/satin weave
UV Resistance	Requires UV-stable resin coating	Carbon fiber itself degrades under UV
Moisture Absorption	Negligible	Non-hygroscopic
Storage Conditions	Cool, dry environment < 25° C	Avoid humidity and sunlight
Shelf Life (Dry Fabric)	Indefinite under proper storage	Prepreg: typically 6 – 12 months refrigerated
Certifications	ISO 9001, ROHS, REACH compliant	Material certifications available on

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Main Applications	Aerospace, Automotive, Marine, Composite reinforcement, lightweight Sporting Goods, UAVs, RC Hobby structures	