

Attribute	Specification / Typical Value	Notes / Standard
Product Name	Carbon Fiber Fabric Roll	Also known as Carbon Fiber Cloth Roll
Carbon Fiber Type	PAN-based Carbon Fiber (e.g., T300, T700, T800)	Industrial/Aerospace grade
Weave Style	Plain Weave, 2×2 Twill Weave, 4HS Satin Weave	Twill weave most popular due to drapability
Yarn/Tow Count	1K / 3K / 6K / 12K / 24K	3K is the most common for general applications
Areal Weight	160 g/m <sup>2</sup> - 600 g/m <sup>2</sup>	Common weights: 200g/m <sup>2</sup> , 240g/m <sup>2</sup> , 280g/m <sup>2</sup>
Roll Width	1000 mm / 1200 mm / 1500 mm	Custom widths available
Roll Length	50 meters per roll (standard); customizable	Based on customer request
Fabric Thickness (dry)	Approx. 0.2 mm - 0.5 mm	Varies with weave and weight
Resin Compatibility	Epoxy, Polyester, Vinyl Ester, Phenolic	Suitable for hand lay-up, vacuum infusion, RTM, prepreg
Fiber Density	1.76 g/cm <sup>3</sup>	PAN-based carbon fiber
Tensile Strength	≥ 3400 MPa	According to ASTM D3039
Tensile Modulus	≥ 230 GPa	High stiffness
Elongation at Break	~1.5%	Brittle but strong
Electrical Conductivity	Excellent	Conductive along fiber axis
Thermal Resistance	Up to 180 ° C (dry fabric); 120 - 180 ° C with resin matrix	Resin-dependent
Volatile Content	< 0.5%	For dry woven fabrics
Surface Finish	Dry (standard), Prepreg available	Custom prepreg fabrics on request
UV Resistance	Requires protective resin coating	Bare fabric not UV stable
Moisture Absorption	Negligible	Non-hygroscopic
Certifications	ISO 9001, ROHS, REACH compliant	MSDS and COA available
Packaging	Roll packed with plastic film and protective outer carton	Palletized or boxed shipment
Storage Conditions	Store in a dry, cool place; avoid direct sunlight	Ideal temperature: < 25 ° C
Shelf Life (dry fabric)	Indefinite under proper storage	Prepreg shelf life: 6 - 12 months refrigerated
Applications	Aerospace, Automotive, Marine, RC Hobby, Sports, Industrial	Composite reinforcement & laminates