

Property	Specification / Typical Value	Standard / Notes
Product Name	3K Twill Weave Carbon Fiber Fabric	Also known as 2×2 Twill Weave
Weave Pattern	Twill 2/2	Diagonal, high drapability
Yarn Type	3K Carbon Fiber	3,000 filaments per tow, commonly T300 or T700
Fiber Type	PAN-based Carbon Fiber (T300/T700)	Aerospace or industrial grade
Weave Style	Twill Weave (2-over, 2-under)	Better formability over plain weave
Fabric Areal Weight	200 g/m ² - 300 g/m ²	Common options: 200g/m ² (6 oz), 240g/m ² (7.2 oz), 280g/m ²
Fiber Areal Weight	Typically 200 - 220 g/m ²	Refers to carbon fiber only
Width	1000 mm / 1200 mm / 1500 mm	Custom widths available
Roll Length	50 meters per roll (standard)	Custom roll lengths on request
Thickness (dry)	Approx. 0.25 mm - 0.35 mm	Depends on GSM and weave tightness
Resin Compatibility	Epoxy, Polyester, Vinyl Ester	Suitable for hand lay-up, infusion, prepreg
Tensile Strength	≥ 3400 MPa (49.3 ksi)	ASTM D3039 (fiber reference)
Tensile Modulus	≥ 230 GPa (33.4 Msi)	ASTM D3039
Elongation at Break	~1.5%	Indicates brittle behavior
Fiber Density	1.76 g/cm ³	PAN-based carbon fiber
Surface Finish	Dry Fabric (Standard), Prepreg (Optional)	Prepregs available upon request
Volatile Content	≤ 0.5%	For dry fabrics
Thermal Resistance	Up to 180 ° C (dry fabric); 120 - 180 ° C when cured (resin-dependent)	Check based on resin system
Electrical Conductivity	Excellent (Conductive along fiber)	Useful for EMI shielding and antistatic purposes
Drapeability	Excellent for complex contours	Better than plain weave
Storage Condition	Store in cool, dry area, avoid direct sunlight	Preferably < 25° C, < 70% RH
Applications	Aerospace, Automotive, Sporting Goods, Marine, UAVs, RC Models	Also used in composite molds and aesthetic panels
Certifications	ISO 9001, RoHS, REACH (upon request)	Material traceability available