Attribute	Specification / Typical Value	Notes / Standards
Product Name	Plain Weave Carbon Fiber Fabric	Also known as Carbon Fiber Cloth - Plain Weave
Carbon Fiber Type	PAN-based Carbon Fiber (T300, T700, etc.)	High tensile strength and modulus
Weave Pattern	Plain Weave	Simple over-under weave, high stability
Yarn/Tow Count	1K / 3K / 6K / 12K	3K is commonly used for its balance of strength and flexibility
Areal Weight	160 - 600 g/m²	Popular choices: 200g/m², 240g/m², 280g/m²
Fabric Thickness	0.2 - 0.5 mm (typical)	Varies by weight and tow size
Roll Width	1000 mm / 1200 mm / 1500 mm	Custom widths available
Roll Length	50 m per roll (standard)	Can be cut to custom lengths
Resin Compatibility	Epoxy, Polyester, Vinyl Ester, Phenolic	Suitable for vacuum infusion, hand lay-up, RTM
Tensile Strength	≥ 3400 MPa (dry fiber)	ASTM D3039 standard
Tensile Modulus	≥ 230 GPa (dry fiber)	High rigidity
Elongation at Break	~1.5%	Brittle but extremely strong
Fiber Density	1.76 g/cm³	PAN-based fiber
Electrical Conductivity	Excellent	Conducts electricity in fiber direction
Thermal Conductivity	High	Approx. 5.7 W/m·K (fiber axis)
Thermal Resistance	Up to 180°C (dry), 120 - 180°C (with resin)	Depends on resin system used
Moisture Absorption	Negligible	Ideal for aerospace and marine uses
UV Resistance	Requires resin coating	Bare carbon fiber will degrade under prolonged UV exposure
Surface Finish	Dry Fabric (standard); Prepreg available on request	Surface treatments optional
Volatile Content	< 0.5%	For dry fabric only
Certifications	ISO 9001, REACH, RoHS compliant	Certificate of Analysis (COA) available
Packing Method	Roll packed with PE film, vacuum-sealed, with carton or pallet	Export packaging standard
Storage Conditions	Store in dry and cool place; keep away from sunlight	Ideal temp < 25°C, humidity < 60%
Shelf Life (Dry Fabric)	Indefinite under proper storage conditions	Prepreg shelf life is 6 - 12 months refrigerated

Attribute	Specification / Typical Value	Notes / Standards
Applications	Aerospace, Marine, Automotive, Sports Equipment, Hobby/RC	Reinforcement for composite structures