



12K Carbon/Carbon Composites Typical Physical Properties

Material Grade			CCP-130-12 CCC-130-12	CCP-140-12	CCP-145-12	CCP-150-12	CCP-152-12
Fabric			12K Twill	12K Twill	12K Twill	12K Twill	12K Twill
Density	g/cm ³		1.35	1.45	1.48	1.50	1.52
Flexural Strength	psi MPa	⊥	10,500 72.4	14,058 96.9	15,634 107.8	17,734 122.3	21,664 149.4
Flexural Modulus	ksi GPa	⊥	3,400 23.4	5,504 37.9	5,806 40.0	7,002 48.3	8,734 60.2
Tensile Strength	psi MPa	//	6,100 42.1	11,557 79.7	12,514 86.3	13,414 92.5	15,586 107.5
Tensile Modulus	ksi GPa	//	5,700 39.3	7,718 53.2	7,926 54.6	8,398 57.9	9,685 66.8
Interlaminar Shear Strength	psi MPa		760 5.2	1,026 7.1	1,320 9.1	1,617 11.1	1,910 13.2
Compressive Strength	psi MPa	//	7,050 48.6	9,580 66.1	14,300 98.6	16,850 116.2	19,500 134.4
Thermal Conductivity	W/mK W/mK	// ⊥	30 6	31 6	31 6	31 7	32 7
CTE (20 – 1,000°C)	x 10 ⁻⁶ /K x 10 ⁻⁶ /K	// ⊥	0.5 7.0	0.5 7.0	0.5 7.0	0.5 7.0	0.5 7.0
Electrical Resistivity (25°C)	μΩm	//	34	35	35	32	31

Notes:

1) // Parallel to Fiber Axis, ⊥ Perpendicular to Fiber Axis.