

Grade: CFC-12K

Manufacturer: Graphtek LLC
Description: Carbon Fiber Reinforced Carbon Matrix Composites

PROPERTY	US VALUE		METRIC VALUE	
Heat Treatment Temperature	3632	F	2000	C
Fiber Volume Fraction	60	%	60	%
Density	0.054	lb/in ³	1.5	gr/cm ³
Porosity	8	% VOL	8	% VOL
Young's Modulus	7977075.5	psi	55	GPa
Interlaminar Shear	1160	psi	8	mpa
Tensile Strength to lam	17400	psi	120	MPa
Thermal Expansion to lam	0.389 x 10⁻⁶	Lg/°F	0.7 x 10⁻⁶	Lg/K
Thermal Expansion - to lam	3.890 x 10⁻⁶	Lg/°F	7.0 x 10⁻⁶	Lg/K
Thermal Conductivity to lam	17.34	BTU/(h.ft ² °F/ft)	30	W/(m ² .K/m)
Thermal Conductivity - to lam	4.05	BTU/(h.ft ² °F/ft)	7	W/(m ² . K/m)
Electric Resistivity (RT)	11.81	micro-ohm/in	30	micro-ohm/cm