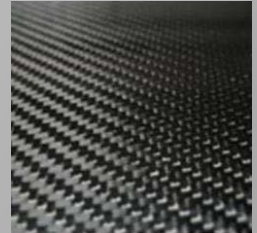


**Carbon/Carbon Composites**

**Characteristics of Carbon Composites**

- Lightweight
- High modulus
- High strength
- Fire resistant
- Dimensionally stable
- Fatigue and fracture resistant
- Configurations of carbon fabric
- Low thermal mass



Typical Properties	Unit	
Reinforcement pattern		12K Twill
Heat Treatment Temperature	°C	2000
Fiber Volume Fraction	%	60
Bulk Density	g/cc	1.5
Porosity	% vol	8
Young's Modulus	GPa	55
Interlaminar Shear Strength	MPa	8
Tensile Strength (// to)	MPa	120
Thermal Expansion (CTE) // to the lamination ↓ to the lamination	(10 <sup>-6</sup> /K)	0.7 7.0
Thermal Conductivity // to the lamination ↓ to the lamination	w/mK	30 7
Electric resistivity (RT)	μΩ/m	30

**Shapes Made to Print**  
- Custom fabrications quoted

