

## Carbon Rods & Tubes

### Description

Rigid composite profiles densely reinforced with continuous carbon fiber in a cured epoxy based resin matrix.

Minimum Properties	Carbon Rods > .156"	Carbon Tubes
Tensile Strength	250 ksi / 1.72 GPa	240 ksi / 1.65 GPa
Tensile Modulus	20.0 msi / 138 GPa	19.5 msi / 134 GPa
Ultimate Shear Strength	6.0 ksi / 41.3 Mpa	6.0 ksi / 41.3 Mpa
Ultimate Tensile Strain	1.50%	1.40%
Flexural Strength	265 ksi / 1.83 GPa	200 ksi / 1.37 GPa
Flexural Modulus	19.0 msi / 131 GPa	18.5 msi / 127 GPa
Fiber Volume	62%	60%
Thermal Expansion Coefficient	-0.1 ppm/cm <sup>3</sup> / -0.2 ppm/°C	-0.1 ppm/cm <sup>3</sup> / -0.2 ppm/°C
Density	.054 lbs/in <sup>3</sup> / 1.5 g/cm <sup>3</sup>	.054 lbs/in <sup>3</sup> / 1.5 g/cm <sup>3</sup>
Diameter Tolerance	+.000 / -.003"	+.000/- .003"
Glass Transition Temperature	100° C	100° C
Matrix Material	Bisphenol Epoxy Vinyl Ester	Bisphenol Epoxy Vinyl Ester

\* Sample data measured from a .156 inch diameter rod.

### Custom Products:

- High temperature epoxy matrix with glass transition temperature of 170° C.
- High modulus carbon fibers.
- E-glass and S-glass fibers.
- Custom diameters or tubes
- Rectangles and other shapes

### Availability:

- Coils of 100 ft. to 2000 ft. depending on size.
- Wooden reels with 1000 ft. to 10,000 ft. random lengths.
- Cut to specified lengths up to 120" at no additional charge.

Call Professional Plastics at **(888) 995-7767** or  
 E-Mail: [sales@proplas.com](mailto:sales@proplas.com)  
 Order Online at [www.professionalplastics.com](http://www.professionalplastics.com)

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