

# PC 1000 Rod



**Subcategory:** Polycarbonate; Polymer; Thermoplastic

**Material Notes:**

Data provided by Quadrant Engineering Plastic Products.

Physical Properties	Metric	English	Comments
Specific Gravity	<a href="#">1.2 g/cc</a>	0.0434 lb/in <sup>3</sup>	ASTM D792
Water Absorption	<a href="#">0.2 %</a>	0.2 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	<a href="#">0.4 %</a>	0.4 %	Immersion; ASTM D570(2)
<b>Mechanical Properties</b>			
Hardness, Rockwell M	75	75	ASTM D785
Hardness, Rockwell R	126	126	ASTM D785
Hardness, Shore D	80	80	ASTM D2240
Tensile Strength, Ultimate	<a href="#">72.4 MPa</a>	10500 psi	ASTM D638
Elongation at Break	<a href="#">100 %</a>	100 %	ASTM D638
Tensile Modulus	<a href="#">2.21 GPa</a>	320 ksi	ASTM D638
Flexural Modulus	<a href="#">2.41 GPa</a>	350 ksi	ASTM D790
Flexural Yield Strength	<a href="#">89.6 MPa</a>	13000 psi	ASTM D790
Compressive Strength	<a href="#">79.3 MPa</a>	11500 psi	10% Def.; ASTM D695
Compressive Modulus	<a href="#">2.07 GPa</a>	300 ksi	ASTM D695
Shear Strength	<a href="#">63.4 MPa</a>	9200 psi	ASTM D732
Izod Impact, Notched	<a href="#">0.001 J/cm</a>	1.5 ft-lb/in	ASTM D256 Type A
<b>Electrical Properties</b>			
Surface Resistivity per Square	Min 1e+013 ohm	Min 1e+013 ohm	EOS/ESD S11.11
Dielectric Constant	3.17	3.17	1MHz; ASTM D150
Dielectric Strength	<a href="#">15.7 kV/mm</a>	400 V/mil	Short Term; ASTM D149
Dissipation Factor	0.0009	0.0009	1MHz; ASTM D150
<b>Thermal Properties</b>			
CTE, linear 68°F	<a href="#">70.2 µm/m-°C</a>	39 µin/in-°F	(-40°F to 300°F); ASTM E831
Thermal Conductivity	<a href="#">0.187 W/m-K</a>	1.3 BTU-in/hr-ft <sup>2</sup> -°F	ASTM F433
Maximum Service Temperature, Air	<a href="#">121 °C</a>	250 °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	<a href="#">143 °C</a>	290 °F	ASTM D648
Glass Temperature	<a href="#">145 °C</a>	293 °F	ASTM D3418
Flammability, UL94 (Estimated Rating)	HB	HB	1/8 inch

**Qualitative Processing Properties**

Compliance - FDA	Not Compliant	
Machinability	3	1-10, 1=Easier to Machine
Service in Alcohols	Acceptable	
Service in Aliphatic Hydrocarbons	Limited	
Service in Aromatic Hydrocarbons	Unacceptable	
Service in Chlorinated Solvents	Unacceptable	
Service in Ethers	Unacceptable	
Service in Ketones	Unacceptable	
Service in Strong Acids	Unacceptable	
Service in Strong Alkalies	Unacceptable	
Service in Sunlight	Limited	
Service in Weak Acids	Acceptable	
Service in Weak Alkalies	Acceptable	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to our [disclaimer and terms of use](#) regarding this information.



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