



Typical Properties of

**Carbon Filled PEEK**

Polyetheretherketone with 30% Carbon Fiber Filler

Process: Compression Molded

Property	Test Method	Unit	Value
<b>Specific Gravity</b>	D792	--	1.42
<b>Tensile Strength</b>	D638	psi	14,000
<b>Tensile Modulus</b>	D638	psi	800,000
<b>Elongation</b>	D638	%	2
<b>Flexural Strength</b>	D790	psi	30,000
<b>Flexural Modulus</b>	D790	psi	1,300,000
<b>Compressive Strength</b>	D695	psi	25,000
<b>Compressive Modulus</b>	D695	psi	550,000
<b>Hardness, Rockwell</b>	D785	--	M97 (R125)
<b>Hardness Durometer</b>	--	--	D86
<b>Izod Impact (notched)</b>	D256	ft. lb of notch	1.4
<b>Coeff. of Friction (Dynamic)</b>	--	dry v.s steel	0.24
<b>Coeff. of Linear Therm. Expan.</b>	E831/ D696	in./in./°F	$1.7 \times 10^{-5}$
<b>Continuous Use Temperature</b>	--	°F	480
<b>Heat Deflection Temperature</b>	D648	°F	450
<b>Glass Transition Temperature</b>	D3418	°F	290
<b>Melting Point</b>	D3418	°F	644
<b>Thermal Conductivity</b>	E1530-11	BTU in/hr ft <sup>2</sup> °F	6.37
<b>Dielectric Strength</b>	D149	Volts/mil	32
<b>Surface Resistivity</b>	EOS/ESD 511.11	ohm/square	<10 <sup>5</sup>
<b>Flammability</b>	UL94	--	V-0
<b>Water Absorption, 24 hrs.</b>	D570	% by weight	0.15
<b>Water Absorption, Saturation</b>	D570	% by weight	0.5
<b>Limiting PV (4:1 Safety Factor)</b>	--	--	41,000
<b>K-Factor</b>	--	--	160
<b>FDA Compliance</b>	--	--	No

Note: The data provided is for reference purposes only. Additional testing may be required for design specifications or quality control.  
All values at 73 F unless otherwise stated.