



Typical Properties of

**Bearing Grade PEEK**

PEEK filled with 10% Carbon, 10% Graphite, 10% PTFE

Process: Compression Molded

Property	Test Method	Unit	Value
Specific Gravity	D792	--	1.44
Tensile Strength	D638	psi	7,900
Tensile Modulus	D638	psi	530,000
Elongation	D638	%	2
Flexural Strength	D790	psi	13,000
Flexural Modulus	D790	psi	700,000
Compressive Strength	D695	psi	24,000
Compressive Modulus	D695	psi	N / A
Hardness, Rockwell	D785	--	N / A
Hardness Durometer	--	--	N / A
Izod Impact (notched)	D256	ft. lb of notch	1
Coeff. of Friction (Dynamic)	--	dry v.s steel	0.3
Coeff. of Linear Therm. Expan.	E831/ D696	in./in./°F	$2.7 \times 10^{-5}$
Continuous Use Temperature	--	°F	480
Heat Deflection Temperature	D648	°F	383
Glass Transition Temperature	D3418	°F	290
Melting Point	D3418	°F	644
Thermal Conductivity	E1530-11	BTU in/hr ft <sup>2</sup> °F	N / A
Dielectric Strength	D149	Volts/mil	N / A
Surface Resistivity	EOS/ESD 511.11	ohm/square	$10^5 - 10^6$
Flammability	UL94	--	N / A
Water Absorption, 24 hrs.	D570	% by weight	0.07
Water Absorption, Saturation	D570	% by weight	N / A
Limiting PV (4:1 Safety Factor)	--	--	30,000
K-Factor	--	--	100
FDA Compliance	--	--	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.