



**INTERNATIONAL
CERAMIC
ENGINEERING**

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Engineering Answers in Advanced Ceramics

PEEK (Polyetheretherketone)

<i>Properties</i>	<i>Measurements</i>
<i>Physical Properties</i>	
Density lb/in ³ (g/cm ³)	0.047 (1.31)
Water Absorption (%)	0.10
<i>Mechanical Properties</i>	
Tensile Strength (psi)	16,000
Tensile Modulus (psi)	500,000
Tensile Elongation at Break (%)	20
Flexural Strength (psi)	25,000
Flexural Modulus psi (Kpsi)	600,000
Compressive Strength (psi)	20,000
Compressive Modulus (psi)	500,000
Hardness, Rockwell (Shore D)	M100
IZOD Impact Notched (ft-lb/in)	0.1.0
<i>Thermal Properties</i>	
Coefficient of Linear Thermal Expansion (x10 ⁻⁵ in/in/oF)	2.6
Heat Deflection Temp (at 264 psi °F / °C)	230 / 160
Melting Temperature (°F / °C)	644 / 340
Maximum Operating Temperature (°F / °C)	480 / 249
Thermal Conductivity BTU-in./ft ² -hr.-°F x 10 ⁻⁴ cal/cm-sec-°C	1.75 6.03
Flammability Rating	V-0
<i>Electrical Properties</i>	
Dielectric Strength (V/mil) short time, 1/8" thick	480
Dielectric Constant at 1MHz (60 Hz)	3.30
Dissipation Factor at 1 MHz (60 Hz)	0.003
Volume Resistivity (ohm-cm) at 50% RH	4.9 x 10 ¹⁶

