



**INTERNATIONAL
CERAMIC
ENGINEERING**

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Engineering Answers in Advanced Ceramics

Ultem® 1000

<i>Properties</i>	<i>Measurements</i>
<i>Physical Properties</i>	
Density lb/in ³ (g/cm ³)	0.046 (1.28)
Water Absorption (%)	0.25
<i>Mechanical Properties</i>	
Tensile Strength (psi)	16,500
Tensile Modulus (psi)	475,000
Tensile Elongation at Break (%)	80
Flexural Strength (psi)	20,000
Flexural Modulus psi (Kpsi)	500,000
Compressive Strength (psi)	22,000
Compressive Modulus (psi)	480,000
Hardness, Rockwell (Shore D)	M112 / R125
IZOD Impact Notched (ft-lb/in)	0.5
<i>Thermal Properties</i>	
Coefficient of Linear Thermal Expansion (x10 ⁻⁵ in/in/oF)	3.1
Heat Deflection Temp (at 264 psi °F / °C)	392 / 200
Melting Temperature (°F / °C)	419 / 215
Maximum Operating Temperature (°F / °C)	340 / 171
Thermal Conductivity BTU-in./ft ² -hr.-°F x 10 ⁻⁴ cal/cm-sec-°C	0.90 3.10
Flammability Rating	V-0
<i>Electrical Properties</i>	
Dielectric Strength (V/mil) short time, 1/8" thick	830
Dielectric Constant at 1MHz (60 Hz)	3.15
Dissipation Factor at 1 MHz (60 Hz)	0.0013
Volume Resistivity (ohm-cm) at 50% RH	6.7 x 10 ¹⁷

