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**Engineering Answers in Advanced Ceramics**

### Torlon® 4301

<i>Properties</i>	<i>Measurements</i>
<b><i>Physical Properties</i></b>	
Density lb/in <sup>3</sup> (g/cm <sup>3</sup> )	0.052 (1.45)
Water Absorption (%)	0.4
<b><i>Mechanical Properties</i></b>	
Tensile Strength (psi)	12,000
Tensile Modulus (psi)	800,000
Tensile Elongation at Break (%)	3
Flexural Strength (psi)	23,000
Flexural Modulus psi (Kpsi)	800,000
Compressive Strength (psi)	22,000
Compressive Modulus (psi)	950,000
Hardness, Rockwell (Shore D)	M106
IZOD Impact Notched (ft-lb/in)	0.8
<b><i>Thermal Properties</i></b>	
Coefficient of Linear Thermal Expansion (x10 <sup>-5</sup> in/in/oF)	1.4
Heat Deflection Temp (at 264 psi °F / °C)	534 / 279
Melting Temperature (°F / °C)	---
Maximum Operating Temperature (°F / °C)	500 / 260
Thermal Conductivity BTU-in./ft <sup>2</sup> -hr.-°F x 10 <sup>-4</sup> cal/cm-sec-°C	3.70 12.8
Flammability Rating	V-0
<b><i>Electrical Properties</i></b>	
Dielectric Strength (V/mil) short time, 1/8" thick	---
Dielectric Constant at 1MHz (60 Hz)	6.0
Dissipation Factor at 1 MHz (60 Hz)	0.037
Volume Resistivity (ohm-cm) at 50% RH	>10 <sup>13</sup>

