



# THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

## ULTEM®

<b>Item:</b>	Ultem®	
<b>Description:</b>	<p>Ultem® is a family of Polyetherimide (PEI) products manufactured by SABIC, and can be further classified as an amorphous thermoplastic. Ultem® resins are used in medical and chemical instrumentation due to their heat resistance, solvent resistance and flame resistance. Ultem® has high mechanical properties and performs in continuous use to 340°F (170°C).</p> <p>Ultem® is a semi-transparent high strength plastic material that can operate in high service temperature environments. Ultem® is resistant to hot water and steam and can withstand repeated cycles in a steam autoclave. Ultem® has outstanding electrical properties, with one of the highest dielectric strengths of any thermoplastic material. Ultem® is often used instead of polysulfone when superior strength, stiffness, or temperature resistance is required.</p> <p>Ultem® is available in glass-filled grades with enhanced strength and stiffness</p>	
<b>Applications:</b>	<ul style="list-style-type: none"> <li>• Electrical connectors</li> <li>• Semiconductor equipment &amp; components</li> <li>• Pumps and valves</li> </ul>	
<b>Key Characteristics:</b>	<ul style="list-style-type: none"> <li>• Extremely strong and stiff</li> <li>• FDA compliant grades available</li> <li>• High dielectric strength</li> </ul>	
<b>Availability:</b>	<b>Fabricated Parts:</b>	The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers.

Length, width, thickness, and diameter sizes are available in a wide variety, with the proper product specified for your particular application. Product colors will vary according to material type.

Typical Properties	Test Method	Ultem®
Water Absorption, immersion 24 hours (%)	ASTM D570	0.25
Tensile Strength (psi)	ASTM D638	16,500
Flexural Modulus (psi)	ASTM D790	500,000
IZOD impact, notched (ft-lbs/in of notch)	ASTM D256	0.5
Heat Deflection Temperature @ 264 psi (°F)	ASTM D648	400
Coefficient of Linear Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	ASTM D696	3.1
Maximum continuous service temperature in air (°F)	--	--
Dielectric Constant at 1 KHz	ASTM D150	3.15
Dissipation Factor at 1 KHz	ASTM D150	0.0013
Surface Resistivity (ohms/square)	EOS/ESD S11.11	> 10 <sup>13</sup>

Data supplied above are typical values and are not to be considered specification values. All of the information, suggestions and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.