### TYPICAL PROPERTIES of ACETALS

<table>
<thead>
<tr>
<th>ASTM or UL test</th>
<th>Property</th>
<th>Acetal Copolymer</th>
<th>Delrin Homopolymer</th>
<th>Delrin AF PTFE-filled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Density (lb/in³)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D792</td>
<td></td>
<td>0.051</td>
<td>0.051</td>
<td>0.054</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.41</td>
<td>1.41</td>
<td>1.50</td>
</tr>
<tr>
<td>D570</td>
<td>Water Absorption, 24 hrs (%)</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
</tbody>
</table>

### PHYSICAL

<table>
<thead>
<tr>
<th>ASTM or UL test</th>
<th>Property</th>
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<th>Delrin Homopolymer</th>
<th>Delrin AF PTFE-filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>D638</td>
<td>Tensile Strength (psi)</td>
<td>9,500</td>
<td>11,000</td>
<td>8,000</td>
</tr>
<tr>
<td>D638</td>
<td>Tensile Modulus (psi)</td>
<td>400,000</td>
<td>450,000</td>
<td>435,000</td>
</tr>
<tr>
<td>D638</td>
<td>Tensile Elongation at Break (%)</td>
<td>30</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>D790</td>
<td>Flexural Strength (psi)</td>
<td>12,000</td>
<td>13,000</td>
<td>12,000</td>
</tr>
<tr>
<td>D790</td>
<td>Flexural Modulus (psi)</td>
<td>400,000</td>
<td>450,000</td>
<td>435,000</td>
</tr>
<tr>
<td>D695</td>
<td>Compressive Strength (psi)</td>
<td>15,000</td>
<td>16,000</td>
<td>16,000</td>
</tr>
<tr>
<td>D695</td>
<td>Compressive Modulus (psi)</td>
<td>400,000</td>
<td>450,000</td>
<td>350,000</td>
</tr>
<tr>
<td>D785</td>
<td>Hardness, Rockwell M88 / R120</td>
<td>M88 / R120</td>
<td>M89 / R122</td>
<td>M85 / R115</td>
</tr>
<tr>
<td>D256</td>
<td>IzOD Impact Notched (ft-lb/in)</td>
<td>1.0</td>
<td>1.0</td>
<td>0.7</td>
</tr>
</tbody>
</table>

### MECHANICAL

<table>
<thead>
<tr>
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<th>Delrin AF PTFE-filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>D696</td>
<td>Coefficient of Linear Thermal Expansion</td>
<td>5.40</td>
<td>4.70</td>
<td>5.00</td>
</tr>
<tr>
<td>D648</td>
<td>Heat Deflection Temp (°F / °C) at 264 psi</td>
<td>220 / 104</td>
<td>250 / 121</td>
<td>244 / 118</td>
</tr>
<tr>
<td>D3418</td>
<td>Melting Point Temp (°F / °C)</td>
<td>335 / 168</td>
<td>347 / 175</td>
<td>347 / 175</td>
</tr>
<tr>
<td>-</td>
<td>Max Operating Temp (°F / °C)</td>
<td>180 / 82</td>
<td>180 / 82</td>
<td>180 / 82</td>
</tr>
<tr>
<td>C177</td>
<td>Thermal Conductivity (BTU-in/ft²-hr-°F)</td>
<td>1.6</td>
<td>2.5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(x 10^-4 cal/cm-sec-°C)</td>
<td>5.5</td>
<td>8.6</td>
<td>-</td>
</tr>
<tr>
<td>UL94</td>
<td>Flammability Rating</td>
<td>HB</td>
<td>HB</td>
<td>HB</td>
</tr>
</tbody>
</table>

### THERMAL

<table>
<thead>
<tr>
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<th>Delrin AF PTFE-filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>D149</td>
<td>Dielectric Strength (V/mil) short time, 1/8&quot; thick</td>
<td>420</td>
<td>450</td>
<td>400</td>
</tr>
<tr>
<td>D150</td>
<td>Dielectric Constant at 1 MHz</td>
<td>3.8</td>
<td>3.7</td>
<td>3.1</td>
</tr>
<tr>
<td>D150</td>
<td>Dissipation Factor at 1 MHz</td>
<td>0.005</td>
<td>0.005</td>
<td>0.010</td>
</tr>
<tr>
<td>D257</td>
<td>Volume Resistivity (ohm-cm) at 50% RH</td>
<td>10^-15</td>
<td>10^-15</td>
<td>3.0 x 10^-16</td>
</tr>
</tbody>
</table>

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.

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