## Product Description

Ultrason® S 3010 is medium viscosity injection molding grade with improved toughness and chemical resistance (stress crack resistance).

### Applications

Typical applications include laboratory accessories and household parts.

## General

### Material Status

- Commercial: Active

### Literature

1. Processing - Injection Molding Guide (English)
2. Technical Datasheet - ISO (English)

### UL Yellow Card

- E41871-233828

### Search for UL Yellow Card

- BASF Corporation
- Ultrason® S

### Availability

- Asia Pacific
- Europe
- North America

### Features

- Good Chemical Resistance
- Good Crack Resistance
- Good Toughness
- Medium Viscosity
- Household Goods

### Agency Ratings

- EC 1907/2006 (REACH)

### RoHS Compliance

- RoHS Compliant

### Forms

- Pellets

### Processing Method

- Injection Molding

### Multi-Point Data

- Shear Modulus vs. Temperature (ISO 11403-1)
- Specific Volume vs Temperature (ISO 11403-2)
- Viscosity vs. Shear Rate (ISO 11403-2)

## Physical

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>1.23</td>
<td>g/cm³</td>
<td>ISO 1183</td>
</tr>
<tr>
<td>Melt Volume-Flow Rate (MVR) (360°C/10.0 kg)</td>
<td>40.0</td>
<td>cm³/10min</td>
<td>ISO 1133</td>
</tr>
<tr>
<td>Molding Shrinkage Across Flow</td>
<td>0.74%</td>
<td></td>
<td>ISO 294-4</td>
</tr>
<tr>
<td>Molding Shrinkage Flow</td>
<td>0.70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Absorption</td>
<td>0.80%</td>
<td></td>
<td>ISO 62</td>
</tr>
<tr>
<td>Water Absorption Equilibrium, 23°C</td>
<td>0.30%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Mechanical

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Modulus (23°C)</td>
<td>2550</td>
<td>MPa</td>
<td>ISO 527-2</td>
</tr>
<tr>
<td>Tensile Stress (Yield, 23°C)</td>
<td>75.0</td>
<td>MPa</td>
<td>ISO 527-2</td>
</tr>
<tr>
<td>Tensile Strain (Yield, 23°C)</td>
<td>6.0%</td>
<td></td>
<td>ISO 527-2</td>
</tr>
</tbody>
</table>

## Impact

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charpy Notched Impact Strength -30°C</td>
<td>6.0</td>
<td>kJ/m²</td>
<td>ISO 179</td>
</tr>
<tr>
<td>23°C</td>
<td>5.5</td>
<td>kJ/m²</td>
<td></td>
</tr>
<tr>
<td>Charpy Unnotched Impact Strength -30°C</td>
<td>No Break</td>
<td></td>
<td>ISO 179</td>
</tr>
<tr>
<td>23°C</td>
<td>No Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notched Izod Impact Strength -30°C</td>
<td>6.0</td>
<td>kJ/m²</td>
<td>ISO 180</td>
</tr>
<tr>
<td>23°C</td>
<td>5.5</td>
<td>kJ/m²</td>
<td></td>
</tr>
</tbody>
</table>

## Hardness

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball Indentation Hardness</td>
<td>135</td>
<td>MPa</td>
<td>ISO 2039-1</td>
</tr>
</tbody>
</table>

## Thermal

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Deflection Temperature 1.8 MPa, Unannealed</td>
<td>177</td>
<td>°C</td>
</tr>
</tbody>
</table>

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1. UL and the UL logo are trademarks of UL LLC © 2014. All Rights Reserved.
2. The information presented on this datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

http://www.upmold.com
### Ultrason® S 3010

**Polysulfone**

**BASF Corporation**

www.ulprospector.com

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#### Thermal

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLTE - Flow</td>
<td>5.3E-5</td>
<td>cm/cm/°C</td>
<td>UL 746</td>
</tr>
<tr>
<td>RTI Elec</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.60 mm</td>
<td>155</td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>3.00 mm</td>
<td>155</td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>RTI Imp</td>
<td></td>
<td></td>
<td>UL 746</td>
</tr>
<tr>
<td>1.60 mm</td>
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<td>130</td>
<td>°C</td>
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</tr>
<tr>
<td>3.00 mm</td>
<td>155</td>
<td>°C</td>
<td></td>
</tr>
</tbody>
</table>

#### Electrical

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Resistivity</td>
<td>&gt; 1.0E+15</td>
<td>ohm</td>
<td>IEC 60093</td>
</tr>
<tr>
<td>Volume Resistivity</td>
<td>&gt; 1.0E+13</td>
<td>ohm·cm</td>
<td>IEC 60093</td>
</tr>
<tr>
<td>Electric Strength</td>
<td>37</td>
<td>kV/mm</td>
<td>IEC 60243-1</td>
</tr>
<tr>
<td>Dielectric Constant</td>
<td></td>
<td></td>
<td>IEC 60250</td>
</tr>
<tr>
<td>100 Hz</td>
<td>3.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 MHz</td>
<td>3.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissipation Factor</td>
<td>8.0E-4</td>
<td></td>
<td>IEC 60250</td>
</tr>
<tr>
<td>100 Hz</td>
<td>6.4E-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 MHz</td>
<td>6.4E-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparative Tracking Index</td>
<td>125</td>
<td>V</td>
<td>IEC 60112</td>
</tr>
</tbody>
</table>

#### Flammability

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>UnitStick to a plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.60 mm</td>
<td>HB</td>
<td></td>
</tr>
<tr>
<td>3.00 mm</td>
<td>HB</td>
<td></td>
</tr>
</tbody>
</table>

#### Injection

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drying Temperature</td>
<td>130 to 150</td>
<td>°C</td>
</tr>
<tr>
<td>Drying Time</td>
<td>4.0</td>
<td>hr</td>
</tr>
<tr>
<td>Suggested Max Moisture</td>
<td>0.020</td>
<td>%</td>
</tr>
<tr>
<td>Processing (Melt) Temp</td>
<td>340 to 390</td>
<td>°C</td>
</tr>
<tr>
<td>Mold Temperature</td>
<td>140 to 180</td>
<td>°C</td>
</tr>
<tr>
<td>Injection Pressure</td>
<td>3.50 to 12.5</td>
<td>MPa</td>
</tr>
<tr>
<td>Injection Rate</td>
<td>Fast</td>
<td></td>
</tr>
</tbody>
</table>

#### Notes

1. These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

2. A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

3. Typical properties: these are not to be construed as specifications.
Where to Buy

Supplier

BASF Corporation
Wyandotte, MI USA
Telephone: 800-527-TECH
Web: http://www.plasticsportal.com/usa

Distributor

Amco Polymers
Telephone: 800-262-6685
Web: http://www.amcopolymers.com/
Availability: North America

Entec Polymers
Telephone: 800-375-5440
Web: http://www.entecpolymers.com/
Availability: North America

M. Holland Canada Company
Telephone: 905-665-1168
Web: http://www.mholland.com/
Availability: Canada

M. Holland Company
Telephone: 855-497-1403
Web: http://www.mholland.com/
Availability: Mexico, United States

Nexeo Solutions
Telephone: 888-594-6009
Web: http://www.nexeosolutions.com/
Availability: North America

PolyOne Distribution
PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.
Telephone: 800-894-4266
Web: http://polyonedistribution.com/
Availability: Global

Ultrapolymers
Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.
Telephone: +32-11-57-95-57
Web: http://www.ultrapolymers.com/
Availability: Bosnia and Herzegovina, Croatia, France, Germany, Italy, Macedonia, Portugal, Serbia, Spain, Turkey, United Kingdom

Reseller

Honrun International Co., Ltd.
Telephone: 852-6999-9415
Web: http://www.polycor.com.hk
Availability: China