General Information

Product Description

AF-312A is specifically engineered to meet the need for high performance products in the flame retardant resin applications. AF-312A provides an optimum balance of physical properties, high heat resistance outstanding UV stability and good finished part aesthetics.

General

Material Status
- Commercial: Active

Availability
- Asia
- Europe
- North America
- Pacific Rim
- South America

Test Standards Available
- ASTM

Additive
- UV Stabilizer
- Flame Retardant

Features
- Heat Resistance, High
- Surface Finish, Good
- Computer Components
- Electrical Parts

Forms
- Pellets

ASTM and ISO Properties

Physical

Density - Specific Gravity
Nominal Value: 1.19
Unit: sp gr 23/23°C
Test Method: ASTM D792

Melt Mass-Flow Rate (MFR)
(200°C/5.0 kg) Nominal Value: 6.0
Unit: g/10 min
Test Method: ASTM D1238
(220°C/10.0 kg) Nominal Value: 50
Unit: g/10 min
(230°C/3.8 kg) Nominal Value: 15
Unit: g/10 min

Mold Shrink, Linear-Flow
Nominal Value: 0.0040 to 0.0070
Unit: in/in
Test Method: ASTM D955

Mechanical

Tensile Modulus
Nominal Value: 3.34E+6
Unit: psi
Test Method: ASTM D638

Tensile Strength @ Yield
Nominal Value: 6440
Unit: psi
Test Method: ASTM D638

Tensile Elongation @ Yld
Nominal Value: 5.0
Unit: %
Test Method: ASTM D638

Tensile Elongation @ Brk
Nominal Value: 20
Unit: %
Test Method: ASTM D638
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Modulus</td>
<td>3.77E+6</td>
<td>psi</td>
<td>ASTM D790</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>10300</td>
<td>psi</td>
<td>ASTM D790</td>
</tr>
<tr>
<td>Impact</td>
<td>Nominal Value</td>
<td>Unit</td>
<td>Test Method</td>
</tr>
<tr>
<td>Notched Izod Impact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(-22 °F, 0.125 in)</td>
<td>1.47</td>
<td>ft·lb/in</td>
<td></td>
</tr>
<tr>
<td>(-22 °F, 0.250 in)</td>
<td>1.47</td>
<td>ft·lb/in</td>
<td></td>
</tr>
<tr>
<td>(73 °F, 0.125 in)</td>
<td>5.51</td>
<td>ft·lb/in</td>
<td></td>
</tr>
<tr>
<td>(73 °F, 0.250 in)</td>
<td>4.22</td>
<td>ft·lb/in</td>
<td></td>
</tr>
<tr>
<td>Thermal</td>
<td>Nominal Value</td>
<td>Unit</td>
<td>Test Method</td>
</tr>
<tr>
<td>DTUL @66psi - Unannealed</td>
<td>181</td>
<td>°F</td>
<td>ASTM D648</td>
</tr>
<tr>
<td>DTUL @66psi - Annealed</td>
<td>189</td>
<td>°F</td>
<td>ASTM D648</td>
</tr>
<tr>
<td>DTUL @264psi - Unannealed</td>
<td>167</td>
<td>°F</td>
<td>ASTM D648</td>
</tr>
<tr>
<td>DTUL @264psi - Annealed</td>
<td>180</td>
<td>°F</td>
<td>ASTM D648</td>
</tr>
<tr>
<td>Vicat Softening Point</td>
<td>181</td>
<td>°F</td>
<td>ASTM D1525</td>
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<tr>
<td>Flammability</td>
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<td></td>
<td>Test Method</td>
</tr>
<tr>
<td>Flame Rating - UL</td>
<td>V-0</td>
<td></td>
<td>UL 94</td>
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<tr>
<td>(0.0625 in)</td>
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<td></td>
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</tr>
<tr>
<td>(0.100 in)</td>
<td>V-0</td>
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<td></td>
</tr>
<tr>
<td>(0.125 in)</td>
<td>5VB</td>
<td></td>
<td></td>
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<tr>
<td>Notes</td>
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</tr>
<tr>
<td>1 Typical properties: these are not to be construed as specifications.</td>
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<tr>
<td>2 2.0 in/min</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3 0.59 in/min</td>
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