RAMOFIN PPH300G4
Polyram Ram-On Industries - Polypropylene Homopolymer

General Information

Product Description
20% GLASS-FIBER REINFORCED POLYPROPYLENE FOR INJECTION MOULDING APPLICATION.

General
- Material Status: Commercial: Active
- Availability: Africa & Middle East, Asia Pacific, Europe, Latin America, North America, South America
- Filler / Reinforcement: Glass Fiber Reinforcement, 20% Filler by Weight
- RoHS Compliance: RoHS Compliant
- Processing Method: Injection Molding

ASTM and ISO Properties

<table>
<thead>
<tr>
<th>Physical</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity</td>
<td>1.01 to 1.07</td>
<td>1.01 to 1.07</td>
<td>ASTM D792</td>
</tr>
<tr>
<td>Density</td>
<td>1.01 to 1.07 g/cm³</td>
<td>1.01 to 1.07 g/cm³</td>
<td>ISO 1183</td>
</tr>
<tr>
<td>Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)</td>
<td>5.0 g/10 min</td>
<td>5.0 g/10 min</td>
<td>ASTM D1238</td>
</tr>
<tr>
<td>Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)</td>
<td>5.0 g/10 min</td>
<td>5.0 g/10 min</td>
<td>ISO 1133</td>
</tr>
<tr>
<td>Molding Shrinkage (Flow)</td>
<td>0.0020 to 0.0050 in/in</td>
<td>0.20 to 0.50 %</td>
<td>ASTM D955</td>
</tr>
<tr>
<td>Molding Shrinkage</td>
<td>0.20 to 0.50 %</td>
<td>0.20 to 0.50 %</td>
<td>ISO 2577</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Modulus</td>
<td>696000 psi</td>
<td>4800 MPa</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>696000 psi</td>
<td>4800 MPa</td>
<td>ISO 527-2</td>
</tr>
<tr>
<td>Tensile Strength (Yield)</td>
<td>10200 psi</td>
<td>70.0 MPa</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Tensile Stress (Yield)</td>
<td>10200 psi</td>
<td>70.0 MPa</td>
<td>ISO 527-2</td>
</tr>
<tr>
<td>Tensile Elongation (Break)</td>
<td>3.0 %</td>
<td>3.0 %</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Tensile Strain (Break)</td>
<td>3.0 %</td>
<td>3.0 %</td>
<td>ISO 527-2</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>464000 psi</td>
<td>3200 MPa</td>
<td>ASTM D790</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>464000 psi</td>
<td>3200 MPa</td>
<td>ISO 178</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>14500 psi</td>
<td>100.0 MPa</td>
<td>ASTM D790</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>14500 psi</td>
<td>100.0 MPa</td>
<td>ISO 178</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notched Izod Impact (73 °F (23 °C))</td>
<td>1.78 ft·lb/in</td>
<td>95.0 J/m</td>
<td>ASTM D256</td>
</tr>
<tr>
<td>Notched Izod Impact Strength (73 °F (23 °C))</td>
<td>4.28 ft·lb/in²</td>
<td>9.00 kJ/m²</td>
<td>ISO 180</td>
</tr>
</tbody>
</table>
### Thermal Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deflection Temperature Under Load</strong></td>
<td>66 psi (0.45 MPa), Unannealed</td>
<td>307 °F, 153 °C</td>
<td>ASTM D648</td>
</tr>
<tr>
<td><strong>Heat Deflection Temperature</strong></td>
<td>66 psi (0.45 MPa), Unannealed</td>
<td>307 °F, 153 °C</td>
<td>ISO 75-2/B</td>
</tr>
<tr>
<td><strong>Deflection Temperature Under Load</strong></td>
<td>264 psi (1.8 MPa), Unannealed</td>
<td>293 °F, 145 °C</td>
<td>ASTM D648</td>
</tr>
<tr>
<td><strong>Heat Deflection Temperature</strong></td>
<td>264 psi (1.8 MPa), Unannealed</td>
<td>293 °F, 145 °C</td>
<td>ISO 75-2/A</td>
</tr>
<tr>
<td><strong>Melting Temperature</strong></td>
<td>329 °F, 165 °C</td>
<td></td>
<td>ASTM D3418</td>
</tr>
<tr>
<td><strong>Melting Temperature (DSC)</strong></td>
<td>329 °F, 165 °C</td>
<td></td>
<td>ISO 11357</td>
</tr>
<tr>
<td><strong>Maximum Use Temperature</strong></td>
<td></td>
<td>140 °C, 140 °C</td>
<td></td>
</tr>
<tr>
<td><strong>Short Peaks Operation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum Use Temperature</strong></td>
<td></td>
<td>110 °C, 110 °C</td>
<td></td>
</tr>
</tbody>
</table>

### Flammability

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flame Rating - UL (0.118 in (3.00 mm))</strong></td>
<td>HB</td>
<td>HB</td>
<td>UL 94</td>
</tr>
</tbody>
</table>

### Processing Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rear Temperature</strong></td>
<td>374 to 428 °F</td>
<td>190 to 220 °C</td>
</tr>
<tr>
<td><strong>Middle Temperature</strong></td>
<td>392 to 437 °F</td>
<td>200 to 225 °C</td>
</tr>
<tr>
<td><strong>Front Temperature</strong></td>
<td>401 to 446 °F</td>
<td>205 to 230 °C</td>
</tr>
<tr>
<td><strong>Mold Temperature</strong></td>
<td>86.0 to 149 °F</td>
<td>30.0 to 65.0 °C</td>
</tr>
<tr>
<td><strong>Injection Pressure</strong></td>
<td>10200 to 15200 psi</td>
<td>70.0 to 105 MPa</td>
</tr>
<tr>
<td><strong>Holding Pressure</strong></td>
<td>5080 to 10200 psi</td>
<td>35.0 to 70.0 MPa</td>
</tr>
<tr>
<td><strong>Back Pressure</strong></td>
<td>50.8 to 102 psi</td>
<td>0.350 to 0.700 MPa</td>
</tr>
<tr>
<td><strong>Screw Speed</strong></td>
<td>60 to 90 rpm</td>
<td>60 to 90 rpm</td>
</tr>
</tbody>
</table>

**Notes**

1. Typical properties: these are not to be construed as specifications.