Technical Data Sheet

*Alathon* 8005M-3

High Density Polyethylene

**Product Description**

*Alathon* 8005M-3 is a high molecular weight, high density polyethylene copolymer with broad, bimodal molecular weight distribution. Typical applications are non-pressure-rated pipes produced by corrugation or profile wall extrusion. *Alathon* 8005M-3 should not be used in smooth wall pipes that will contain fluids at pressures above ambient. *Alathon* 8005M-3 meets the following standard:

- ASTM D3350 Cell Classification: PE445540A

**Regulatory Status**

For regulatory compliance information, see *Alathon* 8005M-3 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

<table>
<thead>
<tr>
<th>Status</th>
<th>Commercial: Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>North America; South &amp; Central America</td>
</tr>
<tr>
<td>Application</td>
<td>Drainage Pipe</td>
</tr>
<tr>
<td>Market</td>
<td>Pipe</td>
</tr>
<tr>
<td>Processing Method</td>
<td>Pipe</td>
</tr>
</tbody>
</table>

**Typical Properties**

<table>
<thead>
<tr>
<th>Physical</th>
<th>Nominal Value</th>
<th>English Units</th>
<th>Nominal Value</th>
<th>SI Units</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Flow Rate, (190 °C/2.16 kg)</td>
<td>0.07</td>
<td>g/10 min</td>
<td>0.07</td>
<td>g/10 min</td>
<td>ASTM D1238</td>
</tr>
<tr>
<td>Density, (23 °C)</td>
<td>0.949</td>
<td>g/cm³</td>
<td>0.949</td>
<td>g/cm³</td>
<td>ASTM D1505</td>
</tr>
</tbody>
</table>

**Mechanical**

- Flexural Modulus, (2% Secant) 136000 psi 938 MPa ASTM D790
- Tensile Stress at Break 5170 psi 35.6 MPa ASTM D638
- Tensile Stress at Yield 3540 psi 24.4 MPa ASTM D638
- Tensile Elongation at Break 840 % 840 % ASTM D638

**Environmental Stress Crack Resistance**

- $F_{50}$ (10% Igepal®, Cond B) >1000 hr >1000 hr ASTM D1693
- $F_{50}$ (100% Igepal®, Cond B) >1000 hr >1000 hr ASTM D1693

**Thermal**

- Deflection Temperature Under Load, (66 psi, Unannealed) 169 °F 76 °C ASTM D648
- Oxidative-Induction Time, (200 °C) >40 min >40 min ASTM D3895
Notes
Igepal® is a registered trademark of Rhodia.
These are typical property values not to be construed as specification limits.

Processing Techniques
Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information
For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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