Alathon L4550

High Density Polyethylene

Product Description
Alathon L4550 is a medium molecular weight high density copolymer with a narrow molecular weight distribution. L4550 inherently has very low gels and is used for monofilament, slit tape and high speed orientation processes. Typical applications include specialty films, packaging of agriculture products, protective netting for the agriculture and building industry, and netting for food applications.

Regulatory Status
For regulatory compliance information, see Alathon L4550 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status
Commercial

Availability
North America

Application
Agriculture Film; Bags & Pouches; Nets; Raffia/Tapes/Strapping; Secondary Packaging

Market
Flexible Packaging

Processing Method
Blown Film; Tapes & Raffia

Attribute
General Purpose; Good Organoleptic Properties; High Density; Low Gel

<table>
<thead>
<tr>
<th>Typical Properties</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><strong>Physical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melt Flow Rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(190 °C/2.16 kg)</td>
<td>0.45</td>
<td>g/10 min</td>
<td>0.45</td>
<td>g/10 min</td>
<td>ASTM D1238</td>
</tr>
<tr>
<td>(190 °C/5.0 kg)</td>
<td>1.75</td>
<td>g/10 min</td>
<td>1.75</td>
<td>g/10 min</td>
<td>ASTM D1238</td>
</tr>
<tr>
<td>(190 °C/21.6 kg)</td>
<td>20.3</td>
<td>g/10 min</td>
<td>20.3</td>
<td>g/10 min</td>
<td>ASTM D1238</td>
</tr>
<tr>
<td>Density, (23 °C)</td>
<td>0.945</td>
<td>g/cm³</td>
<td>0.945</td>
<td>g/cm³</td>
<td>ASTM D1505</td>
</tr>
<tr>
<td><strong>Film</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tensile Strength at Break, MD</td>
<td>8600</td>
<td>psi</td>
<td>59.3</td>
<td>MPa</td>
<td>ASTM D882</td>
</tr>
<tr>
<td>Tensile Strength at Yield, MD</td>
<td>3300</td>
<td>psi</td>
<td>22.8</td>
<td>MPa</td>
<td>ASTM D882</td>
</tr>
<tr>
<td>Tensile Elongation at Break, MD</td>
<td>750</td>
<td>%</td>
<td>750</td>
<td>%</td>
<td>ASTM D882</td>
</tr>
<tr>
<td>Secant Modulus, MD</td>
<td>99400</td>
<td>psi</td>
<td>685</td>
<td>MPa</td>
<td>ASTM D882</td>
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</tbody>
</table>
Notes
Data obtained from 2.0 mil film produced on a blown film line with a 60 mil die gap, 2.2:1 BUR, and 390-410 °F (199-210 °C) melt extrusion temperature.
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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