Technical Data Sheet

**Adflex Q 401 F**

**Product Description**

*Adflex Q 401 F* is a reactor TPO (thermoplastic polyolefin) manufactured using LyondellBasell's proprietary *Catalloy* process technology. It is suitable for air quenched blown film applications. It contains slip and anti-block additives.

**Regulatory Status**

For regulatory compliance information, see *Adflex Q 401 F* Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

**Status**

Commercial: Active

**Availability**

Africa-Middle East; Asia-Pacific; Australia and New Zealand; North America; South & Central America

**Application**

Bags & Pouches; Breathable Film; Cured in Place Pipe; Heavy Duty Packaging; Specialty Film

**Market**

Flexible Packaging

**Processing Method**

Blown Film; Extrusion Flat-die

**Attribute**

Good Puncture Resistance; Good Tear Strength; High Heat Resistance

### Typical Properties

<table>
<thead>
<tr>
<th>Physical</th>
<th>Nominal Value</th>
<th>Units</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Flow Rate, (230 °C/2.16 kg)</td>
<td>0.65</td>
<td>g/10 min</td>
<td>ISO 1133-1</td>
</tr>
<tr>
<td>Density, (23 °C, Method A)</td>
<td>0.88</td>
<td>g/cm³</td>
<td>ISO 1183-1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Modulus</td>
<td>480</td>
<td>MPa</td>
<td>ISO 178</td>
</tr>
<tr>
<td>Tensile Stress at Break</td>
<td>21</td>
<td>MPa</td>
<td>ISO 527-1, -2</td>
</tr>
<tr>
<td>Tensile Stress at Yield</td>
<td>15</td>
<td>MPa</td>
<td>ISO 527-1, -2</td>
</tr>
<tr>
<td>Tensile Strain at Break</td>
<td>800</td>
<td>%</td>
<td>ISO 527-1, -2</td>
</tr>
<tr>
<td>Tensile Strain at Yield</td>
<td>27</td>
<td>%</td>
<td>ISO 527-1, -2</td>
</tr>
</tbody>
</table>

**Impact**

Charpy Impact Strength - Notched

- (23 °C) 86 kJ/m² ISO 179
- (-20 °C) 3.2 kJ/m² ISO 179
- (-40 °C) 2.2 kJ/m² ISO 179

**Hardness**

Shore Hardness, (Shore D, 15 sec) 49 ISO 868

**Thermal**

- Vicat Softening Temperature, (A50) 108 °C ISO 306
- Heat Deflection Temperature B, (0.45 MPa, Unannealed) 57 °C ISO 75B-1, -2
- DSC Melting Point 163 °C ISO 11357-3
**Optical**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haze, (45 mil)</td>
<td>67 %</td>
<td>ASTM D1003</td>
</tr>
<tr>
<td>Gloss, (60°, 45 mil)</td>
<td>87</td>
<td>ASTM D2457</td>
</tr>
</tbody>
</table>

**Additional Information**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mold Shrinkage</td>
<td></td>
<td>ISO 294-4</td>
</tr>
</tbody>
</table>

Please contact LyondellBasell for shrinkage information.

**Notes**

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/](http://www.lyb.com/).

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