Product Description

*Adflex* Q 190 F is a thermoplastic polyolefin, which is mainly used by our customers for the extrusion of blown film. It is also suitable for sheet extrusion. *Adflex* Q 190 F features very high softness and very low modulus. It does not contain any slip or anti-blocking agents. *Adflex* Q 190 F is used for the production of soft hygienic film and heavy duty film, as well as for the modification of LDPE or LLDPE to increase mechanical characteristics, puncture resistance, and to allow further downgauging. It can be easily processed on conventional LDPE or LLDPE blown film lines.

Regulatory Status

For regulatory compliance information, see *Adflex* Q 190 F [Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS)].

Status

**Commercial:** Active

Availability

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

Application

Agriculture Film; Bags & Pouches; Barrier Film; Breathable Film; Collapsible Tubes; Film Wrap; Food Packaging Film; Heavy Duty Packaging; Hygiene Film; Interior Automotive Applications; Lamination Film; Shrink Film; Stretch Hood; Surface Protection Film; TPO Foils and Skins

Market

Flexible Packaging; Rigid Packaging

Processing Method

Blown Film; Calendaring; Double Bubble; Extrusion Blow Molding; Extrusion Flat-die; Sheet; Thermoforming

Attribute

Good Flexibility; Good Processability; Good Puncture Resistance; Good Tear Strength; Low Temperature Impact Resistance; Low Transparency; Soft

Typical Properties

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Nominal Value</th>
<th>Units</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melt Flow Rate, (230 °C/2.16 kg)</td>
<td>0.6</td>
<td>g/10 min</td>
<td>ISO 1133-1</td>
</tr>
<tr>
<td>Density</td>
<td>0.88</td>
<td>g/cm³</td>
<td>ISO 1183-1</td>
</tr>
<tr>
<td><strong>Mechanical</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>100</td>
<td>MPa</td>
<td>ISO 178</td>
</tr>
<tr>
<td>Tensile Stress at Break</td>
<td>10</td>
<td>MPa</td>
<td>ISO 527-1,-2</td>
</tr>
<tr>
<td>Tensile Stress at Yield</td>
<td>Not Yield Pt</td>
<td>MPa</td>
<td>ISO 527-1,-2</td>
</tr>
<tr>
<td>Tensile Strain at Break</td>
<td>400</td>
<td>%</td>
<td>ISO 527-1,-2</td>
</tr>
<tr>
<td>Tensile Strain at Yield</td>
<td>Not Yield Pt</td>
<td>%</td>
<td>ISO 527-1,-2</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charpy Impact Strength - Notched</td>
<td>NB</td>
<td>kJ/m²</td>
<td>ISO 179</td>
</tr>
<tr>
<td>(-20 °C)</td>
<td>110</td>
<td>kJ/m²</td>
<td>ISO 179</td>
</tr>
<tr>
<td>(-40 °C)</td>
<td>5</td>
<td>kJ/m²</td>
<td>ISO 179</td>
</tr>
</tbody>
</table>

Hardness
Shore Hardness, (Shore D, 15 sec) | 30 | ISO 868
---|---|---
**Thermal**
Vicat Softening Temperature, (A50) | 60 °C | ISO 306
Heat Deflection Temperature B, (0.45 MPa, Unannealed) | 40 °C | ISO 758-1, -2
DSC Melting Point | 142 °C | ISO 11357-3

**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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