

Adflex Q 402 F

Advanced Polyolefin

Product Description

Adflex Q 402 F is a reactor TPO (thermoplastic polyolefin) manufactured using LyondellBasell's proprietary *Catalloy* process technology. It is suitable for air quenched blown film applications.

For regulatory compliance information, see the *Adflex Q 402 F* Product Stewardship Bulletin (PSB).

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	North America, Asia-Pacific, Australia/NZ, Africa-Middle East, Latin America
Processing Methods	Blown Film
Features	Autoclavable, High Heat Resistance , Good Puncture Resistance , Good Tear Strength
Typical Customer Applications	Blown Film, Film

Typical Properties	Method	Value	Unit
Physical			
Density (Method A)	ISO 1183	0.89	g/cm ³
Melt flow rate (MFR) (230 °C/ 2.16 kg)	ISO 1133	0.65	g/10 min
Mechanical			
Tensile Stress at Break (23 °C)	ISO 527-1, -2	21	MPa
Tensile Stress at Yield (23 °C)	ISO 527-1, -2	15	MPa
Tensile Strain at Break (23 °C)	ISO 527-1, -2	>800	%
Tensile Strain at Yield (23 °C)	ISO 527-1, -2	27	%
Flexural modulus (23 °C)	ISO 178	480	MPa
Impact			
Notched izod impact strength	ISO 180		
(- 40°C, Type 1, Notch A)		4	kJ/m ²
(23°C, Type 1, Notch A)		60	kJ/m ²
Hardness			
Shore hardness D	ISO 868/ASTM D 2240	49	
<i>Note: 15 seconds</i>			
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	57	°C
Melting temperature	DSC	164	°C
Vicat softening temperature A/50	ISO 306	108	°C

Additional Properties

Heat Resistance, Internal Test Method: 152°C (305°F)
 Puncture Resistance, Internal Test Method: 160 ft-lb/in³
 Tensile Stress @ Break, MD/TD, ASTM D 882: 68/48 MPa
 Tensile Strain @ Break, MD/TD, ASTM D 882: 670/870 %
 Tensile Stress @ Yield, MD/TD, ASTM D 882: 18/15 MPa
 Secant Modulus, MD/TD, ASTM D 882: 330/300 MPa
 Dart Drop Impact, ISO 7765-1: 550 g
 Elmendorf Tear Strength, MD/TD, ISO 6383-2: 440/920 g

Film property values shown were determined on 50 µm (2.0 mil) thickness blown film extruded at 238°C (460°F), 2.5:1 BUR, with a 2 mm (80 mil) die gap.

Notes

Typical properties; not to be construed as specifications.

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LyondellBasell markets this product through the following entities:

- Equistar Chemicals, LP
- Basell Sales & Marketing Company B.V.
- Basell Asia Pacific Limited
- Basell International Trading FZE

- LyondellBasell Australia Pty Ltd

For the contact details of the LyondellBasell company selling this product in your country, please visit <http://www.lyb.com/>.

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This product(s) may not be used in:

(i) any U.S. FDA Class I, Health Canada Class I, and/or European Union Class I Medical Devices, without prior notification to Seller for each specific product and application; or

(ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application: (1) U.S. FDA Class II, Health Canada Class II or Class III, and/or European Union Class II Medical Devices; (2) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned Medical Devices; (3) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; (4) tobacco related products and applications; (5) electronic cigarettes and similar devices; and (6) pressure pipe or fittings that are considered a part or component of a nuclear reactor.

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All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.

Users should review the applicable Material Safety Data Sheet before handling the product.

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