

Catalloy

Product Description

Adflex Q 109 F is a reactor TPO (thermoplastic polyolefin) manufactured using LyondellBasell's proprietary *Catalloy* process technology. It is suitable for the extrusion and calendaring of soft film and sheet, for the impact modification of polypropylene and other compounding applications, as well as monolayer and multilayer air quenched blown films. It is also used by our customers for automotive color-matched interior trim applications. The grade is available in natural pellet form and has no slip or antiblock, and contains a unique stabilization package for color sensitive applications. Additional suitable stabilization is recommended to protect the resin during melt processing and throughout its useful life.

Regulatory Status

For regulatory compliance information, see Adflex Q 109 F [Product Stewardship Bulletin \(PSB\) and Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Asia-Pacific; North America; South & Central America
Application	Bags & Pouches; Interior Automotive Applications; Soft Profile & Sheets; Specialty Film; TPO Foils and Skins
Market	Automotive; Flexible Packaging
Processing Method	Blown Film; Calendaring; Extrusion Flat-die; Sheet; Thermoforming
Attribute	Good Colorability; Good Flexibility; Good Impact Resistance; Good Puncture Resistance; High ESCR (Environmental Stress Cracking Resistance); Low Gloss; Low Hardness; Medium Heat Resistance

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (230 °C/2.16 kg)	0.6	g/10 min	ISO 1133-1
Density, (23 °C, Method A)	0.88	g/cm ³	ISO 1183-1
Mechanical			
Flexural Modulus	100	MPa	ISO 178
Tensile Stress at Break	10	MPa	ISO 527-1, -2
Tensile Stress at Yield	No Yield Pt	MPa	ISO 527-1, -2
Tensile Strain at Break	500	%	ISO 527-1, -2
Tensile Strain at Yield	No Yield Pt	%	ISO 527-1, -2
Impact			
Charpy Impact Strength - Notched			
(23 °C)	41	kJ/m ²	ISO 179
Note: Failure Mode - Partial Break			
(-20 °C)	107	kJ/m ²	ISO 179
Note: Failure Mode - Partial Break			
(-40 °C)	2.8	kJ/m ²	ISO 179
Note: Failure Mode - Complete Break			
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 75B-1, -2
DSC Melting Point	142 °C	ISO 11357-3
Optical		
Haze		
(50 µm)	9 %	ASTM D1003
(45 mil)	47 %	ASTM D1003
Gloss		
(60°, 45 mil)	87	ASTM D2457
(45°, 50 µm)	50	ASTM D2457
Additional Information		
Mold Shrinkage		ISO 294-4
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

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