

## Adflex V 109 F

### Advanced Polyolefin

#### Product Description

Adflex V 109 F is a reactor TPO (thermoplastic polyolefin) manufactured using LyondellBasell's proprietary *Catalloy* process technology. It is primarily used for molding, impact modification, extrusion coating and film applications. This resin can be used on conventional injection molding or extrusion equipment.

Adflex V 109 F features a very high softness and low modulus, with a relatively high melt flow. The grade is available in natural pellet form.

For regulatory compliance information, see the *Adflex V 109 F* Product Stewardship Bulletin (PSB).

#### Product Characteristics

<b>Status</b>	Commercial: Active
<b>Test Method used</b>	ISO
<b>Processing Methods</b>	Cast Film, Injection Molding
<b>Features</b>	Clarity, Contact, Low Temperature Impact Resistance, Soft
<b>Typical Customer Applications</b>	Film Wrap, Housewares, Industrial, Roofing Underlayment, Sports, Leisure and Toys

Typical Properties	Method	Value	Unit
<b>Physical</b>			
Density (Method A)	ISO 1183	0.89	g/cm <sup>3</sup>
Melt flow rate (MFR) (230 °C/ 2.16 kg)	ISO 1133	12	g/10 min
<b>Mechanical</b>			
Tensile Stress at Break	ISO 527-1, -2	8	MPa
Tensile Stress at Yield	ISO 527-1, -2	5	MPa
Tensile Strain at Break	ISO 527-1, -2	> 800	%
Tensile Strain at Yield	ISO 527-1, -2	> 40	%
Flexural modulus	ISO 178	80	MPa
<b>Impact</b>			
Notched izod impact strength (- 40°C, Type 1, Notch A)	ISO 180	2	kJ/m <sup>2</sup>
(23 °C, Type 1, Notch A)		No Break	
Ductile/Brittle transition temperature	ISO 6603-2	-55	°C
<b>Hardness</b>			
Shore hardness (Shore A)	ISO 868	85	
Shore hardness D	ISO 868/ASTM D 2240	30	
<i>Note: 15 seconds</i>			
<b>Thermal</b>			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	35	°C
Vicat softening temperature (A50 (50°C/h 10N) °C)	ISO 306	55	°C
Melting temperature	DSC	142	°C
<i>Note: ISO 11357-3</i>			

#### Additional Properties

Tear Strength (Graves, Die C, 50 mm/min), ASTM D 624: 65 N/mm  
Load/Width @ Max Load  
Mold Shrink, ISO 294-4: 0.9 %  
48 hr after molding, 100 mmx150 mmx3.2 mm plaque

#### Notes

Typical properties; not to be construed as specifications.

