

High Density Polyethylene Resin
The Dow Chemical Company

Product Description

Main Applications:

- Films that require high stiffness
- Monofilaments

Complies with:

- U.S. FDA 21 177 1520 (c) 3.2a
- EU, No 10/2011
- Consult the regulations for complete details.

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
Search for UL Yellow Card	• The Dow Chemical Company
Availability	• Latin America
Agency Ratings	• EU No 10/2011 • FDA 21 CFR 177.1520(c) 3.2a
Forms	• Pellets

Physical	Nominal Value Unit	Test Method
Density	0.950 g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.95 g/10 min	ASTM D1238

Films	Nominal Value Unit	Test Method
Film Thickness - Tested	51 μm	
Film Puncture Resistance (51 μm)	1.21 J/cm³	Internal Method
Secant Modulus		ASTM D882
2% Secant, MD: 51 μm	573 MPa	
2% Secant, TD: 51 μm	726 MPa	
Tensile Strength		ASTM D882
MD: Yield, 51 μm	24.1 MPa	
TD: Yield, 51 μm	30.1 MPa	
MD: Break, 51 μm	42.2 MPa	
TD: Break, 51 μm	41.8 MPa	
Tensile Elongation		ASTM D882
MD: Break, 51 μm	1100 %	
TD: Break, 51 μm	1200 %	
Dart Drop Impact (51 μm)	120 g	ASTM D1709A
Elmendorf Tear Strength		ASTM D1922
MD: 51 μm	40 g	
TD: 51 μm	110 g	

Optical	Nominal Value Unit	Test Method
Gloss (45°, 50.8 µm)	45	ASTM D2457
Haze (50.8 µm)	23 %	ASTM D1003

Processing Conditions for blown film:

- Die gap: 70 mil (1.8 mm)
- Melt temperature: 457°F (236°C)
- Blow-up Ratio: 2.5:1
- Speed: 40 rpm