

DOWLEX™ IP 10

Polyethylene Resin

The Dow Chemical Company

Technical Data

Product Description

- High Density Polyethylene Resin (HDPE)
- For reusable cases
- Excellent processability, easier flow
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a
- Complies with Canadian HPFB No Objection (With Limitations)
- Complies with EU, No 10/2011
- Consult the regulations for complete details.

DOWLEX™ IP 10 Polyethylene Resin is an Improved Processing high density resin specifically designed for reusable case applications including: poultry, fast food, automotive, retail, fresh produce, beverages, food service and chemicals, including plastics. Excellent processability is achieved with this resin due to its easy flow at low temperatures.

General

Material Status	• Commercial: Active	
Literature ¹	• Technical Datasheet	
Search for UL Yellow Card	• The Dow Chemical Company	
Availability	• Latin America	• North America
Agency Ratings	• EU No 10/2011	• FDA 21 CFR 177.1520(c) 3.2a • HPFB (Canada) No Objection ²
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Nominal Value Unit	Test Method
Specific Gravity	0.960 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	10 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance 50°C, 100% Igepal, F50	8.00 hr	ASTM D1693

Mechanical	Nominal Value Unit	Test Method
Tensile Strength		ASTM D638
Yield	29.0 MPa	
Break	18.6 MPa	
Tensile Elongation		ASTM D638
Yield	7.0 %	
Break	1200 %	
Flexural Modulus - 2% Secant	1160 MPa	ASTM D790B

Impact	Nominal Value Unit	Test Method
Tensile Impact Strength ⁴	105 kJ/m ²	ASTM D1822

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	55	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	81.1 °C	ASTM D648
Brittleness Temperature	< -101 °C	ASTM D746
Vicat Softening Temperature	130 °C	ASTM D1525
Melting Temperature (DSC)	132 °C	Internal Method
Peak Crystallization Temperature (DSC)	119 °C	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.