

DOWLEX™ IP 41

Polyethylene Resin

The Dow Chemical Company

Technical Data

Product Description

- High Density Polyethylene Resin (HDPE)
- For food containers, overcaps and general purpose applications
- ESCR processability and rigidity
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a
- Complies with Canadian HPFB No Objection (With Limitations)
- Consult the regulations for complete details.

DOWLEX™ IP 41 Polyethylene Resin is an Improved Processing high density resin designed to offer excellent processability and rigidity for food containers, overcaps and other general purpose applications. DOWLEX IP 41 resin balances peak molecular weight with a proprietary, optimized molecular weight distribution and a slightly higher density for excellent rigidity. This resin has demonstrated excellent processability over a wide range of processing conditions.

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	• 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	0.956 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	42 g/10 min	ASTM D1238
Mechanical	Nominal Value Unit	Test Method
Tensile Strength		ASTM D638
Yield	29.0 MPa	
Break	29.6 MPa	
Tensile Elongation		ASTM D638
Yield	5.0 %	
Break	10 %	
Flexural Modulus - 2% Secant	1120 MPa	ASTM D790B
Impact	Nominal Value Unit	Test Method
Tensile Impact Strength ⁴	63.0 kJ/m ²	ASTM D1822
Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	58	ASTM D2240
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	65.0 °C	ASTM D648
Brittleness Temperature	-20.0 °C	ASTM D746
Vicat Softening Temperature	126 °C	ASTM D1525
Melting Temperature (DSC)	129 °C	Internal Method
Peak Crystallization Temperature (DSC)	118 °C	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² With limitations

³ Typical properties: these are not to be construed as specifications.

⁴ Type S