



DOWLEX™ IP 41

The Dow Chemical Company - Polyethylene Resin

Tuesday, November 5, 2019

General Information

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
- U.S. FDA-DMF
- 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
Availability	• Latin America • North America
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• DMF Unspecified Rating • FDA 21 CFR 177.1520(c) 3.2a • HPFB (Canada) No Objection ¹
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.958		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	42	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	4200	psi	ASTM D638
Tensile Strength (Break)	4300	psi	ASTM D638
Tensile Elongation (Yield)	5.0	%	ASTM D638
Tensile Elongation (Break)	10	%	ASTM D638
Flexural Modulus - 2% Secant	162000	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ³	30.0	ft-lb/in 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 (66 psi, Unannealed)	149	°F	ASTM D648
Brittleness Temperature	-4.00	°F	ASTM D746
Vicat Softening Temperature	259	°F	ASTM D1525
Melting Temperature (DSC)	264	°F	Internal Method
Peak Crystallization Temperature (DSC)	244	°F	Internal Method

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Additional Information

Plaque molded and tested in accordance with ASTM D4976.

Notes

¹ With limitations

² Typical properties: these are not to be construed as specifications.

³ Type S