DOW™ LDPE 780E

Low Density Polyethylene Resin

The Dow Chemical Company

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Technical Data

Product Description

LDPE 780E Low Density Polyethylene Resin can be readily processed using conventional injection moulding techniques utilising melt temperatures between 140 and 250°C, a mould temperature between 10 and 50°C, and injection pressure between 50 and 150 MPa.

When properly injection moulded, 780E Low Density Polyethylene Resin exhibit:

- Excellent flow
- Good rigidity
- Good surface gloss

Note: LDPE 780E Low Density Polyethylene Resin should comply with FDA regulation 177.1520 and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for contact applications. Please, contact your nearest Dow office for food contact compliance statements.The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Housewares.
- Toys & leisures.
- Containers.
- Compounding.

Complies with Canadian HPFB No Objection
Complies with U.S. FDA 21 CFR 177.1520

General

Material Status	• Commercial: Active	
Search for UL Yellow Card	• The Dow Chemical Company	
Availability	• Asia Pacific	• Europe
Agency Ratings	• FDA 21 CFR 177.1520	• HPFB (Canada) No Objection
Forms	• Pellets	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	0.925	0.923 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	20 g/10 min	20 g/10 min	ISO 1133
Spiral Flow			Internal Method
-- [2]	1.93 in	4.90 cm	
-- [3]	3.35 in	8.50 cm	
Molding Shrinkage			ASTM D955
Flow	0.023 in/in	2.3 %	
Across Flow	0.015 in/in	1.5 %	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
Compression Molded	1.40 hr	1.40 hr	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus - 2% Secant (Compression Molded)	23800 psi	164 MPa	ISO 527-1
Tensile Stress			ISO 527-2
Yield, Compression Molded	1190 psi	8.20 MPa	
Break, Compression Molded	1520 psi	10.5 MPa	
Tensile Strain (Break, Compression Molded)	50 %	50 %	ISO 527-2
Films	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Elongation			ASTM D882
MD : Break, 7.9 mil (200 µm)	700 %	700 %	
TD : Break, 7.9 mil (200 µm)	750 %	750 %	

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Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength	136 ft·lb/in²	286 kJ/m²	ISO 8256
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Shore Hardness (Shore D)	49	49	ISO 868
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Vicat Softening Temperature	199 °F	93.0 °C	ASTM D1525

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Injection Pressure: 8.70E+3 psi (600 bar)

[3] Injection Pressure: 1.74E+4 psi (1.20E+3 bar)

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Where to Buy

Supplier

The Dow Chemical Company
Telephone: +1-800-258-2436 (Americas); 00800-3-694-6367 (Europe, Middle East, Africa, and India); +800-7776-7776 (Asia Pacific)
Web: http://www.dow.com

Distributor

RESINEX Group
RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.
Telephone: +32-14-672511
Web: http://www.resinex.com/
Availability: Europe

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