



Dow Polyethylene 640I

Low Density Polyethylene Resin

- A barefoot general purpose general liner resin
- For blown and cast film extrusion
- Optimum gauge range: 0.8-3.0 mil
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2
Consult the regulations for complete details.

DOW LDPE 640I Resin is a general purpose liner resin for thin gauge applications requiring good drawdown and excellent toughness.

Physical Properties	Test Method	Values ⁽¹⁾ English (SI)
Resin Properties		
Melt Index, g/10 min	ASTM D 1238	2.0
Density, g/cc	ASTM D 792	0.9215
DSC Melting Point, °F (°C)	Dow Method	232 (111)
Vicat Softening Point, °F (°C)	ASTM D 1525	207 (97)
Film Properties, 2.0mil (51 µm)		
Puncture Resistance, ft·lbf/in. ³ (J/cm ³)	Dow Method	35 (3)
Dart Impact (Method A), g	ASTM D 1709	154
Elmendorf Tear, g	MD	498
	CD	284
Tensile Yield, psi (MPa)	MD	1790 (12)
	CD	1760 (12)
Ultimate Tensile, psi (MPa)	MD	3597 (25)
	CD	3329 (23)
Ultimate Elongation, %	MD	417
	CD	665
Toughness, ft·lbf/in. ³ (J/cm ³)	MD	1917 (159)
	CD	2228 (189)
Secant Modulus, 2% psi (MPa)	MD	26187 (181)
	CD	30026 (207)
Gloss, 45°	ASTM D 2457	66
Haze, %	ASTM D 1003	7.6

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm) 30:1 L/D
- Screw Type: Single Flight Double Mix
- Die Gap: 40 mil (1.02 mm)
- Melt Temperature: 450°F (199°C)
- Output: 7 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 60 rpm
- Frost Line Height: 25 in. (365 mm)

(1) Typical values, not to be construed as specifications. Users should confirm results by their own tests.

Handling Considerations

Material Safety Data (MSD) sheets for the product are available from Dow Plastics, a business group of The Dow Chemical Company and its subsidiaries, to help customers further satisfy their own safe handling and disposal needs and those that may be required by OSHA. Material Safety Data sheets on Dow products are intended to provide customers with essential information on such topics as Health and Worker Safety, Combustibility, and Disposal Considerations. Such information should be requested from the supplier(s) of any product(s) prior to working with it. As various additives and processing aids used in fabrication have their own safe use profile, their possible influence on handling and disposal must be investigated separately. For "Regulated" uses, such as food contact, your Dow sales representative can obtain compliance letters for specific resins.

Disposal

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/provincial, and local laws and regulations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

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As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess, or manage chemicals or plastics, and that manage used drums. For more details, contact The Dow Chemical Company Customer Information Center at 1-800-441-4369. In Mexico, call 95-800-441-4369.

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Additional Information

For more information in the United States or Canada, call 1-800-441-4369. In Mexico, call 95-800-441-4369.

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Dow Plastics

We don't succeed unless you do.