



DOW™ LLDPE DFDC-7087 NT 7

The Dow Chemical Company - Linear Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: 6300 ppm • Processing Aid: No • Slip: 1500 ppm
Agency Ratings	• EU No 10/2011 • HPFB (Canada) No Objection
Forms	• Pellets
Processing Method	• Blown Film

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.924		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	Internal Method
Film Puncture Energy	13.0	in·lb	Internal Method
Film Puncture Force	6.00	lbf	Internal Method
Film Puncture Resistance	98.0	ft·lb/in ³	Internal Method
Film Toughness - MD	1320	ft·lb/in ³	ASTM D882
Film Toughness - TD	1290	ft·lb/in ³	ASTM D882
Secant Modulus			ASTM D882
1% Secant, MD	31300	psi	
2% Secant, MD	27600	psi	
Secant Modulus			ASTM D882
1% Secant, TD	35700	psi	
2% Secant, TD	29900	psi	
Tensile Strength - MD (Yield)	1700	psi	ASTM D882
Tensile Strength - TD (Yield)	1680	psi	ASTM D882
Tensile Strength - MD (Break)	5880	psi	ASTM D882
Tensile Strength - TD (Break)	4250	psi	ASTM D882
Tensile Elongation - MD (Break)	580	%	ASTM D882
Tensile Elongation - TD (Break)	680	%	ASTM D882
Dart Drop Impact	95	g	ASTM D1709A
Elmendorf Tear Strength - MD	160	g	ASTM D1922
Elmendorf Tear Strength - TD	400	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	216	°F	ASTM D1525
Melting Temperature (DSC)	252	°F	ISO 3146
Optical	Nominal Value	Unit	Test Method
Gloss (45°)	17		ASTM D2457
Haze	38.0	%	ASTM D1003

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Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 3.5in.; 30:1ratio L/D
- Screw Type: DSB II
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 417°F
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 39 rpm
- Frost Line Height: 52 in

Notes

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