



# DOW™ LLDPE DFDC-7080 NT 7

## Linear Low Density Polyethylene Resin

- Overview**
- CANADIAN HPFB NO OBJECTION (WITH LIMITATIONS)
  - U.S. FDA 21 CFR 177.1520(c)3.2a (with Restrictions)

- Additive**
- Antiblock: 5000 ppm
  - Slip: 800 ppm
  - Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.922 g/cm <sup>3</sup>	0.922 g/cm <sup>3</sup>	ASTM D792
Base Density <sup>1</sup>	0.919 g/cm <sup>3</sup>	0.919 g/cm <sup>3</sup>	Dow Method
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1 mil	25 µm	Dow Method
Film Puncture Energy	14.0 in·lb	1.58 J	
Film Puncture Force	7.00 lbf	31.1 N	
Film Puncture Resistance	94.0 ft·lb/in <sup>3</sup>	7.78 J/cm <sup>3</sup>	
Film Toughness			ASTM D882
MD	1200 ft·lb/in <sup>3</sup>	99.3 J/cm <sup>3</sup>	
TD	1270 ft·lb/in <sup>3</sup>	105 J/cm <sup>3</sup>	
Secant Modulus			ASTM D882
1% Secant, MD	32400 psi	223 MPa	
2% Secant, MD	26800 psi	185 MPa	
1% Secant, TD	31300 psi	216 MPa	
2% Secant, TD	25600 psi	177 MPa	
Tensile Strength			ASTM D882
MD : Yield	1650 psi	11.4 MPa	
TD : Yield	1650 psi	11.4 MPa	
MD : Break	4200 psi	29.0 MPa	
TD : Break	4300 psi	29.6 MPa	
Tensile Elongation			ASTM D882
MD : Break	650 %	650 %	
TD : Break	660 %	660 %	
Dart Drop Impact	90 g	90 g	ASTM D1709
Elmendorf Tear Strength			ASTM D1922
MD	190 g	190 g	
TD	370 g	370 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	216 °F	102 °C	ISO 306
Melting Temperature (DSC)	252 °F	122 °C	ISO 3146
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°)	19	19	ASTM D2457
Haze	37.0 %	37.0 %	ASTM D1003

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**Extrusion Notes**

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## 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: 415°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: 54 in.

**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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<sup>1</sup> Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm<sup>3</sup>. Base density is the estimated density of the polymer if it did not contain any antiblock.

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