DOW™ LDPE 751A
Low Density Polyethylene Resin

Overview

- A high additive film resin for general packaging applications
- For cast film extrusion
- A fast blooming resin for high speed bag conversion
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2
- Complies with Canadian HPFB No Objection (With Limitations)
- Complies with EU, No 10/2011
- Complies with Japan Hygienic Olefin and Styrene Plastics Association
- Consult the regulations for complete details.

Additive

- Antiblock: 2900 ppm
- Slip: 2640 ppm
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.925	g/cm³	0.925	g/cm³	ASTM D792
Base Density [1]	0.923	g/cm³	0.923	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	6.4	g/10 min	6.4	g/10 min	ASTM D1238
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	1	mil	20	µm	
Film Puncture Resistance (0.80 mil (20 µm))	11.0	ft·lb/in³	0.910	J/cm³	Dow Method
Film Toughness					ASTM D882
MD : 0.80 mil (20 µm)	951	ft·lb/in³	78.7	J/cm³	
TD : 0.80 mil (20 µm)	1140	ft·lb/in³	94.4	J/cm³	
Tensile Strength					ASTM D882
MD : Yield, 0.80 mil (20 µm)	2010	psi	13.9	MPa	
TD : Yield, 0.80 mil (20 µm)	1660	psi	11.4	MPa	
MD : Break, 0.80 mil (20 µm)	4700	psi	32.4	MPa	
TD : Break, 0.80 mil (20 µm)	1850	psi	12.8	MPa	
Tensile Elongation					ASTM D882
MD : Break, 0.80 mil (20 µm)	150	%	150	%	
TD : Break, 0.80 mil (20 µm)	440	%	440	%	
Dart Drop Impact (0.80 mil (20 µm))	25	g	25	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD : 0.80 mil (20 µm)	200	g	200	g	
TD : 0.80 mil (20 µm)	100	g	100	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	205	°F	96.1	°C	ASTM D1525
Melting Temperature (DSC)	235	°F	113	°C	Dow Method
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°, 0.800 mil (20.3 µm))	80		80		ASTM D2457
Haze (0.800 mil (20.3 µm))	4.40	%	4.40	%	ASTM D1003

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Extrusion Notes

Fabrication Conditions For Cast Film:

- Screw A, Size: 2 in. (51 mm); 30:1 L/D
  - Melt Temperature: 449°F (232°C)
  - Screw Speed: 54 rpm
- Screw B, Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 449°F (232°C)
  - Screw Speed: 36 rpm
- Screw C, Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 450°F (232°C)
  - Screw Speed: 38 rpm
- Screw D, Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 450°F (232°C)
  - Screw Speed: 37 rpm
- Screw E, Size: 2 in. (51 mm); 30:1 L/D
  - Melt Temperature: 449°F (232°C)
  - Screw Speed: 43 rpm
- Screw Type: DSB II
- Die Gap: 25 mil (0.6 mm)
- Chill Roll Temperature: 70°F (21°C)
- Line Speed: 600 fpm (183 m/min)

Notes

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

[1] 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/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

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