DOW™ LDPE 586A
Low Density Polyethylene Resin

Overview

- Resin for general purpose applications
- Optimum gauge range: 0.8 - 3.0 mil
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.1.
- Complies with Canadian HPFB No Objection (With Limitations)
- Complies with Europe EU-Directive 2002/72/EC (See Notes)
- Consult the regulations for complete details.

Additive

- Antiblock: 1200 ppm
- Slip: 750 ppm
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.923	g/cm³	0.923	g/cm³	ASTM D792
Base Density	0.922	g/cm³	0.922	g/cm³	Dow Method [1]
Melt Index (190°C/2.16 kg)	3.0	g/10 min	3.0	g/10 min	ASTM D1238
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	2.0	mil	51	µm	
Film Puncture Resistance	15.0	ft·lb/in³	1.24	J/cm³	Dow Method
Film Toughness					ASTM D882
MD	1910	ft·lb/in³	158	J/cm³	
TD	1900	ft·lb/in³	157	J/cm³	
Tensile Strength					ASTM D882
MD: Yield	1770	psi	12.2	MPa	
TD: Yield	1760	psi	12.2	MPa	
MD: Break	3170	psi	21.8	MPa	
TD: Break	2510	psi	17.3	MPa	
Tensile Elongation					ASTM D882
MD: Break	510	%	510	%	
TD: Break	660	%	660	%	
Dart Drop Impact	94	g	94	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD	500	g	500	g	
TD	460	g	460	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	198	°F	92.2	°C	ASTM D1525
Melting Temperature (DSC)	230	°F	110	°C	Dow Method
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°)	69		69		ASTM D2457
Haze	9.5	%	9.5	%	ASTM D1003

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm); 24:1 L/D
- Screw Type: Single Flight Double Mix
- Die Gap: 40 mil
- Melt Temperature: 375 °F (190 °C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Frost Line Height: 29 in. (737 mm)

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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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