DOW™ LDPE 320E
Low Density Polyethylene Resin

Overview

DOW LDPE 320E is a fractional melt index low density polyethylene resin. DOW LDPE 320E has been specially designed for the use in applications were high clarity and gloss are required. The improved optical performance can also be observed in LLDPE blends, more pronounced in LDPE rich structures. This resin due to its excellent draw down, allows for thin structures as required in some applications.

Applications:
Food packaging, Display packaging, Lamination films for consumer packaging,

Main Characteristics:

- Excellent processability and draw down
- Designed for applications requiring exceptional optical performance, pure as well as in blends with LLDPE

DOW LDPE 320E should comply with:

- U.S. FDA 21 CFR 177.1520 (c)2.2
- EU, No 10/2011

Consult the regulations for complete details.

Slip Additive: 0 ppm
Antiblock Additive: 0 ppm

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.925	g/cm³	0.925	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	1.0	g/10 min	1.0	g/10 min	ASTM D1238
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Coefficient of Friction	0.50 to 0.70		0.50 to 0.70		ASTM D1894
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	2	mil	50	µm	
Film Puncture Energy (2.0 mil (50 µm))	15.0	in·lb	1.70	J	Dow Method
Film Puncture Force (2.0 mil (50 µm))	11.2	lbf	50.0	N	Dow Method
Film Puncture Resistance (2.0 mil (50 µm))	48.3	ft·lb/in³	4.00	J/cm³	Dow Method
Secant Modulus					ASTM D882
2% Secant, MD : 2.0 mil (50 µm), Blown Film	25400	psi	175	MPa	
2% Secant, TD : 2.0 mil (50 µm), Blown Film	26100	psi	180	MPa	
Tensile Strength					ASTM D882
MD : Yield, 2.0 mil (50 µm), Blown Film	1740	psi	12.0	MPa	
TD : Yield, 2.0 mil (50 µm), Blown Film	1740	psi	12.0	MPa	
MD : Break, 2.0 mil (50 µm), Blown Film	3190	psi	22.0	MPa	
TD : Break, 2.0 mil (50 µm), Blown Film	2900	psi	20.0	MPa	
Tensile Elongation					ASTM D882
MD : Break, 2.0 mil (50 µm), Blown Film	360	%	360	%	
TD : Break, 2.0 mil (50 µm), Blown Film	550	%	550	%	
Dart Drop Impact					ASTM D1709A
2.0 mil (50 µm), Blown Film	120	g	120	g	
Elmendorf Tear Strength					ASTM D1922
MD : 2.0 mil (50 µm), Blown Film	460	g	460	g	
TD : 2.0 mil (50 µm), Blown Film	290	g	290	g	
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°, 1.97 mil (50.0 µm), Blown Film)	71		71		ASTM D2457
Haze (1.97 mil (50.0 µm), Blown Film)	6.80	%	6.80	%	ASTM D1003

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Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Type: Universal
- Output: 29 kg/hr
- Die Diameter: 150in.
- Blow-Up Ratio: 2.5
- Screw Speed: 74 rpm

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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