

DOW™ LLDPE 1613.11 Linear Low Density Polyethylene Resin

Overview

Dow LLDPE 1613.11 is a Linear Low Density Polyethylene Resin, 1-hexene copolymer, produced in the Solution process. This resin is designed to be used in blown extrusion to produce films for industrial applications and consumer packaging. It contains slip and antiblock additives.

Complies with:

- U.S. FDA, 21 CFR 177.1520(c)3.2a
- Europe Commission Regulation (EU) No 10/2011 (See NOTES)

Consult the regulations for complete details.

Additive

· Antiblock: 2500 ppm

• Slip: 1000 ppm

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.923	g/cm³	0.923	g/cm³	ASTM D792
Base Density ¹	0.923	g/cm³	0.923	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	1.3	g/10 min	1.3	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	92.6	ft·lb/in³	7.66	J/cm³	Dow Method
Secant Modulus					ASTM D882
2% Secant, MD : 2.0 mil (51 μm)	27400	psi	189	MPa	
2% Secant, TD : 2.0 mil (51 μm)	32500	psi	224	MPa	
Tensile Strength					ASTM D882
MD : Yield, 2.0 mil (51 μm)	1620	psi	11.2	MPa	
TD : Yield, 2.0 mil (51 µm)	1730	psi	11.9	MPa	
MD : Break, 2.0 mil (51 μm)	4860	psi	33.5	MPa	
TD : Break, 2.0 mil (51 μm)	4600	psi	31.7	MPa	
Tensile Elongation					ASTM D882
MD : Break, 2.0 mil (51 μm)	900	%	900	%	
TD : Break, 2.0 mil (51 μm)	890	%	890	%	
Dart Drop Impact (2.0 mil (51 µm))	270	g	270	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD : 2.0 mil (51 μm)	750	g	750	g	
TD : 2.0 mil (51 μm)	1100	g	1100	g	
Optical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Gloss (45°, 2.00 mil (50.8 μm))	42		42		ASTM D2457
Haze (2.00 mil (50.8 μm))	22	%	22	%	ASTM D1003

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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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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