Product Datasheet

ExxonMobil Signature Polymers

ExxonMobil™ LD 01820 Series

Low Density Polyethylene

Product Description

ExxonMobil™ LD 01820 blown film resin is a fractional melt index grade designed for demanding heavy duty film applications. It combines excellent properties with high melt strength, high bubble stability and high throughput.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Additive	▪ LD 01820.BW: Antiblock: No; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes ▪ LD 01820.LT: Antiblock: Yes; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes		
Applications	▪ Agricultural Film ▪ Blend Partner ▪ Collation Shrink ▪ Construction Film	▪ Construction Liners ▪ Food Packaging ▪ Geomembrane ▪ Heavy Duty Bags	▪ Pallet Shrink Film ▪ Zipper Bag
Form(s)	▪ Pellets		
Revision Date	▪ 06/07/2022		

Resin Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Density	0.920	g/cm³	0.920	g/cm³	ASTM D1505
Melt Index (190°C/2.16 kg)	0.18	g/10 min	0.18	g/10 min	ASTM D1238
Peak Melting Temperature	231	°F	111	°C	ExxonMobil Method

Film Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Tensile Strength at Yield MD	1500	psi	11	MPa	ASTM D882
Tensile Strength at Yield TD	1400	psi	9.5	MPa	ASTM D882
Tensile Strength at Break MD	3300	psi	23	MPa	ASTM D882
Tensile Strength at Break TD	2900	psi	20	MPa	ASTM D882
Elongation at Break MD	100	%	100	%	ASTM D882
Elongation at Break TD	520	%	520	%	ASTM D882
Secant Modulus MD - 1% Secant	24000	psi	170	MPa	ASTM D882
Secant Modulus TD - 1% Secant	32000	psi	220	MPa	ASTM D882
Dart Drop Impact	160	g	160	g	ASTM D1709A
Elmendorf Tear Strength MD	290	g	290	g	ASTM D1922
Elmendorf Tear Strength TD	100	g	100	g	ASTM D1922
Puncture Force	12	lbf	52	N	ExxonMobil Method
Puncture Energy	6.9	in·lb	0.78	J	ExxonMobil Method

Optical Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Gloss (45°)	30		30		ASTM D2457
Haze	22	%	22	%	ASTM D1003

Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product is not intended for use in medical applications and should not be used in any such applications.

Processing Statement

Film (2 mil/50.8 micron) made from ExxonMobil™ LD 01820 resin on a 2.5 in (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of ~381°F (194°C), a 20 mil (0.508 mm) die gap at a rate of ~150 lbs/hr.

Notes

Typical properties: these are not to be construed as specifications.

[1] Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

Manufacturer website: https://www.exxonmobilchemical.com/en/products/polyethylene

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For additional technical, sales and order assistance: Contact Us

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