ExxonMobil™ LLDPE LL 1002 Series Blown

Linear Low Density Polyethylene Resin

Product Description

ExxonMobil™ LL 1002 resins are ethylene 1-butene linear low density polyethylene designed for the blown film process. Films made from LL 1002 resins have very good tensile and toughness properties. LL 1002.09 resin is a granular material suitable for both compounding and film production.

General

Availability [1]	▪ Latin America	▪ North America	
Additive	▪ LL 1002.09 Granular: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes ▪ LL 1002.90: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes		
Applications	▪ Agricultural Film ▪ Bag in Box ▪ Blown Film ▪ Cast Film ▪ Food Packaging ▪ Form Fill And Seal Packaging	▪ Freezer Film ▪ Garment Film ▪ General Packaging ▪ Industrial Packaging ▪ Institutional Can Liners ▪ Liners	▪ Mulch Film ▪ Packaging Films ▪ Produce Bags On A Roll ▪ Shoppers ▪ Trash Can Liners
Form(s)	▪ Granules	▪ Pellets	
Revision Date	▪ 04/01/2020		

Resin Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Density / Specific Gravity	0.918	g/cm³	0.918	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	2.0	g/10 min	2.0	g/10 min	ASTM D1238
Peak Melting Temperature	250	°F	121	°C	ExxonMobil Method

Film Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Tensile Strength at Yield MD	1200	psi	8.5	MPa	ASTM D882
Tensile Strength at Yield TD	1400	psi	9.3	MPa	ASTM D882
Tensile Strength at Break MD	4800	psi	33	MPa	ASTM D882
Tensile Strength at Break TD	3400	psi	24	MPa	ASTM D882
Elongation at Break MD	640	%	640	%	ASTM D882
Elongation at Break TD	760	%	760	%	ASTM D882
Secant Modulus MD - 1% Secant	26000	psi	180	MPa	ASTM D882
Secant Modulus TD - 1% Secant	33000	psi	230	MPa	ASTM D882
Dart Drop Impact	< 60	g	< 60	g	ASTM D1709A
Elmendorf Tear Strength MD	100	g	100	g	ASTM D1922
Elmendorf Tear Strength TD	400	g	400	g	ASTM D1922
Puncture Force	4	lbf	19	N	ExxonMobil Method
Puncture Energy	4.5	in·lb	0.51	J	ExxonMobil Method

Optical Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Gloss (45°)	24		24		ASTM D2457
Haze	25	%	25	%	ASTM D1003

Legal Statement

Tris(nonylphenol)phosphite (TNPP) CAS# 26523-78-4 is not intentionally used by ExxonMobil in this product. Although this product is not routinely tested for its presence, based on product composition knowledge this substance is not expected to be present. However, the fact that this substance is not intentionally used by ExxonMobil in this product does not exclude that trace levels of this substance may be present as a result of the specific characteristics of the raw materials and/or of the manufacturing process.

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

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

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Processing Statement

Film (1.0 mil/25.4 micron) made from LL 1002.80 resin on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 395-415°F (202-213°C), a 60 mil (1.52 mm) die gap at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

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.

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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