Product Datasheet

ExxonMobil Signature Polymers

ExxonMobil™ LLDPE LL 1001BT

Linear Low Density Polyethylene Resin

Product Description

ExxonMobil™ LL 1001BT resin offers excellent drawdown and puncture resistance combined with high gloss and clarity. It is frequently used as a blend partner with LDPE resins to improve film properties and processability. TnPP is not intentionally added to LL 1001BT resin.

General

Availability [1]	▪ Africa & Middle East	▪ Asia Pacific	▪ Europe
Additive	▪ Antiblock: 2500 ppm ▪ Slip: 1000 ppm	▪ Processing Aid: No ▪ Thermal Stabilizer: Yes	
Applications	▪ Agricultural Film ▪ Bag in Box ▪ Barrier Food Packaging ▪ Blown Film ▪ Bread Bags ▪ Food Packaging ▪ Form Fill And Seal Packaging ▪ Freezer Film	▪ Garment Film ▪ General Packaging ▪ Heavy Duty Bags ▪ Ice Bags ▪ Industrial Liners ▪ Industrial Packaging ▪ Lamination Film ▪ Liners	▪ Multilayer Packaging Film ▪ Packaging Films ▪ Produce Bags ▪ Refuse Bags ▪ Shoppers ▪ Stand Up Pouches ▪ Trash Bags
Form(s)	▪ Pellets		
Revision Date	▪ 06/11/2020		

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)	1.0	g/10 min	1.0	g/10 min	ASTM D1238
Peak Melting Temperature	252	°F	122	°C	ExxonMobil Method

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Vicat Softening Temperature	207	°F	97.0	°C	ExxonMobil Method

Film Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield MD	1300	psi	9.1	MPa	ASTM D882
Tensile Strength at Yield TD	1400	psi	9.8	MPa	ASTM D882
Tensile Strength at Break MD	6700	psi	46	MPa	ASTM D882
Tensile Strength at Break TD	4100	psi	28	MPa	ASTM D882
Elongation at Break MD	520	%	520	%	ASTM D882
Elongation at Break TD	690	%	690	%	ASTM D882
Secant Modulus MD - 1% Secant	26000	psi	180	MPa	ASTM D882
Secant Modulus TD - 1% Secant	30000	psi	210	MPa	ASTM D882
Dart Drop Impact	80	g	80	g	ASTM D1709A
Elmendorf Tear Strength MD	90	g	90	g	ASTM D1922
Elmendorf Tear Strength TD	450	g	450	g	ASTM D1922
Puncture Force	7	lbf	29	N	ExxonMobil Method
Puncture Energy	13	in·lb	1.5	J	ExxonMobil Method

Optical Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Gloss (45°)	49		49		ASTM D2457
Haze	13	%	13	%	ASTM D1003

info@petromall.ps
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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).

Processing Statement

Film (1.0 mil/25.4 micron) made 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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