

ExxonMobil™ LLDPE LL 1002xBU

Linear Low Density Polyethylene Resin

Product Description

ExxonMobil™ LL 1002xBU resin is an ethylene 1-butene linear low density polyethylene designed for the blown film process. It offers high gloss and excellent draw down. Films made from LL 1002xBU have very good tensile and toughness properties. TnPP is not intentionally added to LL 1002xBU resin.

General

Availability ¹	<ul style="list-style-type: none"> Asia Pacific Latin America
Additive	<ul style="list-style-type: none"> Antiblock: 3500 ppm Slip: 1500 ppm Processing Aid: No Thermal Stabilizer: Yes
Applications	<ul style="list-style-type: none"> 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 Lamination Film Liners Mulch Film Multilayer Packaging Film Packaging Films Personal Care Produce Bags On A Roll Shoppers Trash Can Liners
Form(s)	<ul style="list-style-type: none"> Pellets
Revision Date	<ul style="list-style-type: none"> 06/11/2020

Resin Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.918 g/cm ³	0.918 g/cm ³	ASTM D1505
Melt Index (190°C/2.16 kg)	2.0 g/10 min	2.0 g/10 min	ASTM D1238
Peak Melting Temperature	253 °F	123 °C	ExxonMobil Method

Thermal

	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	201 °F	94.0 °C	ExxonMobil Method

Film Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1300 psi	8.7 MPa	ASTM D882
Tensile Strength at Yield TD	1400 psi	9.8 MPa	ASTM D882
Tensile Strength at Break MD	5200 psi	36 MPa	ASTM D882
Tensile Strength at Break TD	3800 psi	27 MPa	ASTM D882
Elongation at Break MD	620 %	620 %	ASTM D882
Elongation at Break TD	770 %	770 %	ASTM D882
Secant Modulus MD - 1% Secant	25000 psi	170 MPa	ASTM D882
Secant Modulus TD - 1% Secant	31000 psi	210 MPa	ASTM D882
Dart Drop Impact	< 60 g	< 60 g	ASTM D1709A
Elmendorf Tear Strength MD	110 g	110 g	ASTM D1922
Elmendorf Tear Strength TD	390 g	390 g	ASTM D1922
Puncture Force	5 lbf	21 N	ExxonMobil Method
Puncture Energy	7.1 in-lb	0.80 J	ExxonMobil Method

Optical Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	28	28	ASTM D2457
Haze	23 %	23 %	ASTM D1003

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Legal Statement

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

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.

Processing Statement

Film (1.0 mil/25.4 micron) made from LL 1002xBU 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.

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