ExxonMobil™ LLDPE LL 1002 Series

Linear Low Density Polyethylene Resin

Product Description

LL 1002 series are butene LLDPE designed for the blown film process, offering high gloss and excellent draw down. Films made from LL1002 resins have very good tensile and toughness properties.

General

Availability [1]	▪ Africa & Middle East	▪ Asia Pacific	▪ Europe
Additive	▪ LL 1002KW: Antiblock: 3500 ppm; Slip: 1500 ppm; Processing Aid: No; Thermal Stabilizer: Yes ▪ LL 1002YB: 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 ▪ Lamination Film ▪ Liners ▪ Mulch Film	▪ Multilayer Packaging Film ▪ Packaging Films ▪ Personal Care ▪ Produce Bags On A Roll ▪ Shoppers ▪ Trash Can Liners
Revision Date	▪ 03/01/2013		

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.918	g/cm³	0.918	g/cm³	ASTM D1505
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	1400	psi	9.4	MPa	ASTM D882
Tensile Strength at Yield TD	1300	psi	8.9	MPa	ASTM D882
Tensile Strength at Break MD	7100	psi	49	MPa	ASTM D882
Tensile Strength at Break TD	4200	psi	29	MPa	ASTM D882
Elongation at Break MD	590	%	590	%	ASTM D882
Elongation at Break TD	800	%	800	%	ASTM D882
Secant Modulus TD - 1% Secant	32000	psi	220	MPa	ASTM D882
Dart Drop Impact	70	g	70	g	ASTM D1709A
Elmendorf Tear Strength MD	90	g	90	g	ASTM D1922
Elmendorf Tear Strength TD	400	g	400	g	ASTM D1922

Optical Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Gloss (45°)	76		76		ASTM D2457
Haze	4.4	%	4.4	%	ASTM D1003

Legal Statement

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

Representative samples LL1002YB from our global manufacturing facilities were used. The test specimen were prepared and tested at our European Technology Center using a 25.4 µm (1.0 mil) thick film (screw diameter = 75 mm, die gap = 2.5 mm, BUR = 2.5 and temperature setting of 200°C). Optical film properties have been measured on a 25.4 µm thick film with addition of 10% LDPE at the same conditions.

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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