

# ExxonMobil™ LLDPE LL 1002 Series Blown

## 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 <sup>1</sup>	<ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Asia Pacific</li> <li>Europe</li> </ul>
Additive	<ul style="list-style-type: none"> <li>LL 1002KW: Antiblock: 3500 ppm; Slip: 1500 ppm; Processing Aid: No; Thermal Stabilizer: Yes</li> <li>LL 1002YB: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes</li> </ul>
Applications	<ul style="list-style-type: none"> <li>Agricultural Film</li> <li>Bag in Box</li> <li>Blown Film</li> <li>Cast Film</li> <li>Food Packaging</li> <li>Form Fill And Seal Packaging</li> <li>Freezer Film</li> <li>Garment Film</li> <li>General Packaging</li> <li>Industrial Packaging</li> <li>Institutional Can Liners</li> <li>Lamination Film</li> <li>Liners</li> <li>Mulch Film</li> <li>Multilayer Packaging Film</li> <li>Packaging Films</li> <li>Personal Care</li> <li>Produce Bags On A Roll</li> <li>Shoppers</li> <li>Trash Can Liners</li> </ul>
Revision Date	<ul style="list-style-type: none"> <li>03/01/2013</li> </ul>

### Resin Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	0.918 g/cm <sup>3</sup>	0.918 g/cm <sup>3</sup>	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	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.

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

ExxonMobil™ LLDPE LL 1002 Series Blown  
Linear Low Density Polyethylene Resin

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

©2022 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

[exxonmobilchemical.com](http://exxonmobilchemical.com)