

# ExxonMobil™ LLDPE LL 1001AV Blown

## Linear Low Density Polyethylene Resin

### Product Description

ExxonMobil™ LL 1001AV is an ethylene 1-butene linear low density polyethylene resin that 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 1001AV resin.

### General

Availability <sup>1</sup>	<ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Asia Pacific</li> </ul>	<ul style="list-style-type: none"> <li>Europe</li> <li>Latin America</li> </ul>	
Additive	<ul style="list-style-type: none"> <li>Antiblock: No</li> <li>Slip: No</li> </ul>	<ul style="list-style-type: none"> <li>Processing Aid: No</li> <li>Thermal Stabilizer: Yes</li> </ul>	
Applications	<ul style="list-style-type: none"> <li>Agricultural Film</li> <li>Bag in Box</li> <li>Barrier Food Packaging</li> <li>Blown Film</li> <li>Bread Bags</li> <li>Food Packaging</li> <li>Form Fill And Seal Packaging</li> <li>Freezer Film</li> </ul>	<ul style="list-style-type: none"> <li>Garment Film</li> <li>General Packaging</li> <li>Heavy Duty Bags</li> <li>Ice Bags</li> <li>Industrial Liners</li> <li>Industrial Packaging</li> <li>Lamination Film</li> <li>Liners</li> </ul>	<ul style="list-style-type: none"> <li>Multilayer Packaging Film</li> <li>Packaging Films</li> <li>Produce Bags</li> <li>Refuse Bags</li> <li>Shoppers</li> <li>Stand Up Pouches</li> <li>Trash Bags</li> </ul>
Form(s)	<ul style="list-style-type: none"> <li>Pellets</li> </ul>		
Revision Date	<ul style="list-style-type: none"> <li>06/11/2020</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)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Peak Melting Temperature	248 °F	120 °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	1400 psi	9.3 MPa	ASTM D882
Tensile Strength at Yield TD	1500 psi	10 MPa	ASTM D882
Tensile Strength at Break MD	6500 psi	45 MPa	ASTM D882
Tensile Strength at Break TD	5200 psi	36 MPa	ASTM D882
Elongation at Break MD	550 %	550 %	ASTM D882
Elongation at Break TD	910 %	910 %	ASTM D882
Secant Modulus MD - 1% Secant	26000 psi	180 MPa	ASTM D882
Secant Modulus TD - 1% Secant	31000 psi	210 MPa	ASTM D882
Dart Drop Impact	90 g	90 g	ASTM D1709A
Elmendorf Tear Strength MD	110 g	110 g	ASTM D1922
Elmendorf Tear Strength TD	450 g	450 g	ASTM D1922
Puncture Force	9 lbf	40 N	ExxonMobil Method
Puncture Energy	26 in·lb	3.0 J	ExxonMobil Method

### Optical Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	51	51	ASTM D2457
Haze	18 %	18 %	ASTM D1003

ExxonMobil™ LLDPE LL 1001AV Blown  
Linear Low Density Polyethylene Resin

#### 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 from LL 1001AV 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.

<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.

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)