

ExxonMobil™ LLDPE LL 1001 Series

Linear Low Density Polyethylene Resin

Product Description

LL 1001 series are LLDPE grades, offering excellent drawdown and puncture resistance combined with high gloss and clarity. They are also frequently used as a blend partner with LDPE resins to improve film properties and processability. Several additive packages are available according to the required surface properties.

General

Availability ¹	• Asia Pacific
Additive	<ul style="list-style-type: none"> • LL 1001ZB: Antiblock: 5000 ppm; Slip: 1600 ppm; Processing Aid: No; Thermal Stabilizer: Yes • LL 1001KW: Antiblock: 3500 ppm; Slip: 1500 ppm; Processing Aid: No; Thermal Stabilizer: Yes • LL 1001KI: Antiblock: 2500 ppm; Slip: 1000 ppm; Processing Aid: No; Thermal Stabilizer: Yes • LL 1001XV: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes
Applications	<ul style="list-style-type: none"> <li style="width: 33%;">• Agricultural Film <li style="width: 33%;">• General Packaging <li style="width: 33%;">• Multilayer Packaging Film <li style="width: 33%;">• Blown Film <li style="width: 33%;">• Heavy Duty Bags <li style="width: 33%;">• Packaging Films <li style="width: 33%;">• Bread Bags <li style="width: 33%;">• Ice Bags <li style="width: 33%;">• Produce Bags <li style="width: 33%;">• Food packaging <li style="width: 33%;">• Industrial Liners <li style="width: 33%;">• Refuse Bags <li style="width: 33%;">• Form Fill And Seal Packaging <li style="width: 33%;">• Industrial Packaging <li style="width: 33%;">• Shoppers <li style="width: 33%;">• Freezer Film <li style="width: 33%;">• Lamination Film <li style="width: 33%;">• Stand Up Pouches <li style="width: 33%;">• Garment Film <li style="width: 33%;">• Liners <li style="width: 33%;">• Trash Bags
Revision Date	• March 2010

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.918 g/cm ³	0.918 g/cm ³	ExxonMobil Method
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

Film Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Film Thickness - Tested	1.2 mil	30 µm	
Tensile Strength at Break MD	8300 psi	60 MPa	ASTM D882
Tensile Strength at Break TD	5500 psi	38 MPa	ASTM D882
Elongation at Break MD	590 %	590 %	ASTM D882
Elongation at Break TD	860 %	860 %	ASTM D882
Secant Modulus MD - 1% Secant	32000 psi	220 MPa	ASTM D882
Secant Modulus TD - 1% Secant	36000 psi	250 MPa	ASTM D882
Dart Drop Impact	120 g	120 g	ASTM D1709A
Elmendorf Tear Strength MD	120 g	120 g	ASTM D1922
Elmendorf Tear Strength TD	480 g	480 g	ASTM D1922

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	47	47	ASTM D2457
Haze	9.0 %	9.0 %	ASTM D1003

Typical properties: these are not to be construed as specifications.

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ExxonMobil Chemical ExxonMobil™ LLDPE LL 1001 Series Linear Low Density Polyethylene Resin

Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

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

Processing Statement

The film properties have been measured on 30 µm (1.18 mil) thick films of LL 1001XV (Blow-up ratio : 2.5)

Notes

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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