

# ExxonMobil™ LLDPE LL 3201 Series

## Linear Low Density Polyethylene Resin

### Product Description

ExxonMobil™ LL 3201 resins are ethylene 1-hexene linear low density polyethylene film resins. Films made from LL 3201 resins have outstanding tensile, stiffness, and toughness properties. These superior properties, along with good drawdown capability, permit usage in many demanding packaging applications.

### General

Availability <sup>1</sup>	<ul style="list-style-type: none"> <li>Latin America</li> <li>North America</li> </ul>
Additive	<ul style="list-style-type: none"> <li>LL 3201.69: Antiblock: No; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes</li> <li>LL 3201.36: Antiblock: 5000 ppm; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes</li> <li>LL 3201.15: Antiblock: 4250 ppm; Slip: Yes; Processing Aid: Yes; Thermal Stabilizer: Yes</li> </ul>
Applications	<ul style="list-style-type: none"> <li>Freezer Film</li> <li>Grocery Sacks</li> <li>Heavy Duty Bags</li> <li>Merchandise Bags</li> </ul>
Form(s)	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Revision Date	<ul style="list-style-type: none"> <li>09/24/2021</li> </ul>

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.925 g/cm <sup>3</sup>	0.925 g/cm <sup>3</sup>	ASTM D1505
Melt Index (190°C/2.16 kg)	0.80 g/10 min	0.80 g/10 min	ASTM D1238
Peak Melting Temperature	257 °F	125 °C	ExxonMobil Method

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	226 °F	108 °C	ExxonMobil Method

Film Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1700 psi	12 MPa	ASTM D882
Tensile Strength at Yield TD	1900 psi	13 MPa	ASTM D882
Tensile Strength at Break MD	8300 psi	60 MPa	ASTM D882
Tensile Strength at Break TD	6700 psi	46 MPa	ASTM D882
Elongation at Break MD	530 %	530 %	ASTM D882
Elongation at Break TD	800 %	800 %	ASTM D882
Secant Modulus MD - 1% Secant	38000 psi	260 MPa	ASTM D882
Secant Modulus TD - 1% Secant	46000 psi	320 MPa	ASTM D882
Dart Drop Impact	130 g	130 g	ASTM D1709A
Elmendorf Tear Strength MD	220 g	220 g	ASTM D1922
Elmendorf Tear Strength TD	670 g	670 g	ASTM D1922
Puncture Force	11 lbf	47 N	ExxonMobil Method
Puncture Energy	33 in-lb	3.7 J	ExxonMobil Method

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	58	58	ASTM D2457
Haze	14 %	14 %	ASTM D1003

### 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

Film (1.0 mil/25.4 micron) made 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).

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#### 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)

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