

# ExxonMobil™ LD 2023 Series

(Legacy name: ExxonMobil™ LDPE LD 105 Series)

## Low Density Polyethylene

### Product Description

ExxonMobil™ LD 2023 resins are homopolymer packaging film resins designed for applications requiring outstanding clarity with good stiffness. These resins can be processed in either blown or cast film equipment. LD 2023 resins can be drawn down to 1.0 mil gauge.

### General

Availability <sup>1</sup>	<ul style="list-style-type: none"> <li>Asia Pacific</li> <li>Latin America</li> <li>North America</li> </ul>
Additive	<ul style="list-style-type: none"> <li>LD 2023.BR: Antiblock: 1000 ppm; Slip: 750 ppm; Thermal Stabilizer: Yes</li> <li>LD 2023.DS: Antiblock: 1000 ppm; Slip: No; Thermal Stabilizer: Yes</li> </ul>
Applications	<ul style="list-style-type: none"> <li>Blend Partner</li> <li>Bread Bags</li> <li>Display Packaging Film</li> <li>Food Packaging</li> <li>Form Fill And Seal Packaging</li> <li>Freezer Film</li> <li>High Clarity Film</li> <li>High Quality Lamination</li> <li>Lamination Film</li> <li>Laundry Film</li> <li>Light Duty Shrink Film</li> <li>Produce Bags</li> <li>Salad Bags</li> <li>Textile Packaging</li> </ul>
Revision Date	<ul style="list-style-type: none"> <li>06/17/2020</li> </ul>

### Resin Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.923 g/cm <sup>3</sup>	0.923 g/cm <sup>3</sup>	ASTM D1505
Melt Index (190°C/2.16 kg)	2.0 g/10 min	2.0 g/10 min	ASTM D1238
Peak Melting Temperature	234 °F	112 °C	ExxonMobil Method

### Thermal

	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	203 °F	95.0 °C	ExxonMobil Method

### Film Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1500 psi	11 MPa	ASTM D882
Tensile Strength at Yield TD	1600 psi	11 MPa	ASTM D882
Tensile Strength at Break MD	3400 psi	23 MPa	ASTM D882
Tensile Strength at Break TD	2800 psi	19 MPa	ASTM D882
Elongation at Break MD	180 %	180 %	ASTM D882
Elongation at Break TD	510 %	510 %	ASTM D882
Secant Modulus MD - 1% Secant	31000 psi	210 MPa	ASTM D882
Secant Modulus TD - 1% Secant	37000 psi	250 MPa	ASTM D882
Dart Drop Impact	90 g	90 g	ASTM D1709A
Elmendorf Tear Strength MD	290 g	290 g	ASTM D1922
Elmendorf Tear Strength TD	190 g	190 g	ASTM D1922
Puncture Force	8 lbf	37 N	ExxonMobil Method
Puncture Energy	5.1 in·lb	0.58 J	ExxonMobil Method

### Optical Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	78	78	ASTM D2457
Haze	5.1 %	5.1 %	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

Film (1.5 mil/38.1 micron) made from LD 2023 resin on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 340-360°F (171-182°C), a 30 mil (0.76 mm) die gap at a rate of 8 lbs/hr/in die circumference (1.43 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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