

ExxonMobil™ LDPE LD 312 Series

Low Density Polyethylene Resin

Product Description

ExxonMobil™ LD 312 resins are 4.6 wt% vinyl acetate copolymer resins for films with good toughness. The comonomer content and low melt index of these resins help produce films which exhibit superior impact strength, good heat sealability and good low temperature properties.

General

Availability ¹	<ul style="list-style-type: none"> Latin America North America
Additive	<ul style="list-style-type: none"> LD 312.23: Antiblock: 5000 ppm; Slip: 1100 ppm; Thermal Stabilizer: Yes LD 312.82: Antiblock: 4000 ppm; Slip: 800 ppm; Thermal Stabilizer: Yes LD 312.SJ: Antiblock: 4000 ppm; Slip: 800 ppm; Thermal Stabilizer: Yes
Applications	<ul style="list-style-type: none"> Co-Extrusion Films Freezer Film Produce Bags Foams Lamination Film Rice Bags Form Fill And Seal Packaging Poultry Bag
Form(s)	<ul style="list-style-type: none"> Pellets
Revision Date	<ul style="list-style-type: none"> 06/17/2020

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.925 g/cm ³	0.925 g/cm ³	ASTM D1505
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Vinyl Acetate Content	4.6 wt%	4.6 wt%	ExxonMobil Method
Peak Melting Temperature	221 °F	105 °C	ExxonMobil Method

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	190 °F	88.0 °C	ExxonMobil Method

Film Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1100 psi	7.8 MPa	ASTM D882
Tensile Strength at Yield TD	1100 psi	7.8 MPa	ASTM D882
Tensile Strength at Break MD	3800 psi	26 MPa	ASTM D882
Tensile Strength at Break TD	3300 psi	22 MPa	ASTM D882
Elongation at Break MD	140 %	140 %	ASTM D882
Elongation at Break TD	540 %	540 %	ASTM D882
Secant Modulus MD - 1% Secant	20000 psi	140 MPa	ASTM D882
Secant Modulus TD - 1% Secant	23000 psi	160 MPa	ASTM D882
Dart Drop Impact	200 g	200 g	ASTM D1709A
Elmendorf Tear Strength MD	190 g	190 g	ASTM D1922
Elmendorf Tear Strength TD	90 g	90 g	ASTM D1922
Puncture Force	7 lbf	32 N	ExxonMobil Method
Puncture Energy	5.4 in·lb	0.61 J	ExxonMobil Method

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	68	68	ASTM D2457
Haze	7.1 %	7.1 %	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).

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Processing Statement

Film (1.5 mil/38.1 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 350-370°F (177-188°C), a 30 mil (0.76 mm) die gap at a rate of 8 lbs/hr/in die circumference (1.43 kg/hr/cm).

Notes

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

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.

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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