

ExxonMobil™ LLDPE LL 1107 Series

Linear Low Density Polyethylene Resin

Product Description

ExxonMobil™ LL 1107 resins are fractional melt index ethylene 1-butene linear low density polyethylene blown film resins. Films made from LL 1107 resins have good stiffness and tensile strength. These resins' strength and drawability make them excellent for many film applications.

General

Availability ¹	<ul style="list-style-type: none"> Latin America North America
Additive	<ul style="list-style-type: none"> LL 1107X95: Antiblock: 3500 ppm; Slip: 1700 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes LL 1107X93: Antiblock: 3500 ppm; Slip: 1000 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes LL 1107X31: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes
Applications	<ul style="list-style-type: none"> Blown Film Garment Film Produce Bags
Form(s)	<ul style="list-style-type: none"> Pellets
Revision Date	<ul style="list-style-type: none"> 06/11/2020

Resin Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	0.922 g/cm ³	0.922 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	0.80 g/10 min	0.80 g/10 min	ASTM D1238
Peak Melting Temperature	253 °F	123 °C	ExxonMobil Method

Thermal

	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	219 °F	104 °C	ExxonMobil Method

Film Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1500 psi	10 MPa	ASTM D882
Tensile Strength at Yield TD	1600 psi	11 MPa	ASTM D882
Tensile Strength at Break MD	8000 psi	50 MPa	ASTM D882
Tensile Strength at Break TD	5000 psi	34 MPa	ASTM D882
Elongation at Break MD	540 %	540 %	ASTM D882
Elongation at Break TD	820 %	820 %	ASTM D882
Secant Modulus MD - 1% Secant	34000 psi	230 MPa	ASTM D882
Secant Modulus TD - 1% Secant	39000 psi	270 MPa	ASTM D882
Dart Drop Impact	70 g	70 g	ASTM D1709A
Elmendorf Tear Strength MD	50 g	50 g	ASTM D1922
Elmendorf Tear Strength TD	620 g	620 g	ASTM D1922
Puncture Force	8 lbf	34 N	ExxonMobil Method
Puncture Energy	15 in-lb	1.7 J	ExxonMobil Method

Optical Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	34	34	ASTM D2457
Haze	17 %	17 %	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 from LL 1107X93 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).

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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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