

ExxonMobil™ LDPE LD 103 Series

Low Density Polyethylene Resin

Product Description

ExxonMobil™ LD 103 resins are homopolymer industrial film resins with excellent toughness. LD 103 resins have a low melt index, which provides good impact strength and melt strength over a range of gauges.

General

Additive	- LD 103.59: Antiblock: 3000 ppm; Slip: No; Thermal Stabilizer: Yes - LD 103.PM: Antiblock: No; Slip: No; Thermal Stabilizer: Yes - LD 103.LS: Antiblock: 3000 ppm; Slip: No; Thermal Stabilizer: Yes - LD 103.09: Antiblock: No; Slip: No; Thermal Stabilizer: Yes		
Applications	- Agricultural Film - Blend Partner - Co-Extrusion Films	- Form Fill And Seal Packaging - Freezer Film - Liners	- Medium Duty Shrink Film - Rubber Bale Wrap
Form(s)	Pellets		

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.919 g/cm ³	0.919 g/cm ³	ASTM D1505
Melt Index (190°C/2.16 kg)	1.1 g/10 min	1.1 g/10 min	ASTM D1238
Peak Melting Temperature	226 °F	108 °C	ExxonMobil Method

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	196 °F	91 °C	ASTM D1525

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	1500 psi	10 MPa	ASTM D882
Tensile Strength at Break MD	4500 psi	31 MPa	ASTM D882
Tensile Strength at Break TD	3500 psi	24 MPa	ASTM D882
Elongation at Break MD	250 %	250 %	ASTM D882
Elongation at Break TD	610 %	610 %	ASTM D882
Secant Modulus MD - 1% Secant	29000 psi	200 MPa	ASTM D882
Secant Modulus TD - 1% Secant	37000 psi	260 MPa	ASTM D882
Dart Drop Impact	120 g	120 g	ASTM D1709A
Elmendorf Tear Strength MD	270 g	270 g	ASTM D1922
Elmendorf Tear Strength TD	90 g	90 g	ASTM D1922
Puncture Force	14 lbf	60 N	ExxonMobil Method
Puncture Energy	19 in·lb	2.1 J	ExxonMobil Method

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	54	54	ASTM D2457
Haze	9.2 %	9.2 %	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 103.09 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).