

ExxonMobil LLDPE

LL 1002 Series

Blown Film Resin

Description

LL 1002 resins are butene LLDPE designed for the blown film process.

Films made from LL 1002 resins have very good tensile and toughness properties.

Applications

- Produce bags on a roll
- Drum and box liners
- Trash can liners
- Institutional can liners
- Stretch film

Additive Package	PPA	Antiblock	Slip	Thermal Stabilizer
LL 1002.09*	No	No	No	Yes
LL 1002.32	No	No	No	Yes
LL 1002X74	No	5000 ppm	1700 ppm	Yes
LL 1002X75	No	7500 ppm	1350 ppm	Yes
LL 1002X79	Yes	5000 ppm	1700 ppm	Yes

*Granules

Resin Properties	Test Based On	Typical Value / Unit
Melt Index	ASTM D 1238	2.0 g/10 min
Density	ExxonMobil Method	0.918 g/cm ³
Peak Melting Temperature	ExxonMobil Method	123 °C 253 °F

Film Properties (@ thickness 25.4 μ (1 mil))

Tensile Strength at Yield	MD	ASTM D 882	8.5 MPa	1230 psi
	TD		8.6 MPa	1250 psi
Tensile Strength at Break	MD	ASTM D 882	36.5 MPa	5300 psi
	TD		26 MPa	3800 psi
Elongation at Break	MD	ASTM D 882	660 %	
	TD		780 %	
1% Secant Modulus	MD	ASTM D 882	177 MPa	25700 psi
	TD		195.5 MPa	28400 psi
Haze		ASTM D 1003	28.7 %	
Gloss MD, 45°		ASTM D 2457	22	
Dart Drop Impact Strength, F50		ASTM D 1709A	70 g	
Elmendorf Tear Strength	MD	ASTM D 1922	120 g	
	TD		340 g	
Puncture Energy		ExxonMobil Method	1.1 J	9.8 in-lb

1. Film was made on a 2.5 inch blown film line having a 6 inch die with a 60 mil die gap at a 2.5:1 blow-up ratio and melt temperature of 377-381°F (191-194°C).

LL 1002 resins can - in principle - be used in food contact applications in various EU Member States and in the USA (FDA). Migration or use limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

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