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	1700	Yes
LL 1002X75	No	7500 ppm	1350 ppm	Yes
LL 1002X79	Yes	5000	1700	Yes

* Granules

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

Film Properties[1] (1 mil (25.4 micron) film)

Haze		ASTM D-1003	28.7%	
Gloss, 45°		ASTM D-2457	22	
Yield Strength @ 2% Offset	MD	ASTM D-882	8.5 MPa	1230 psi
	TD		8.6 MPa	1250 psi
Tensile Strength	MD	ASTM D-882	36.5 MPa	5300 psi
	TD		26.0 MPa	3800 psi
Elongation @ Break	MD	ASTM D-882	660%	
	TD		780%	
1% Secant Modulus	MD	ASTM D-882	177.0 MPa	25700 psi
	TD		195.5 MPa	28400 psi
Tear Resistance	MD	ASTM D-1922	120 g	
	TD		340 g	
Puncture Break Energy		ExxonMobil Method	25.4 N	5.7·lb
			1.1 J	9.8 in-lb
Dart Drop Impact, F_{50}		ExxonMobil Method	70 g	

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 all 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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