

ExxonMobil™ LLDPE LL 3003 Series

Linear Low Density Polyethylene Resin

Product Description

ExxonMobil™ LL 3003 Series are ethylene 1-hexene copolymer linear low density polyethylene cast film resins. Films made from LL 3003 resins have outstanding tensile properties, as well as stiffness and toughness. These superior properties, along with excellent drawability, make LL 3003 versatile packaging film resins.

General

Additive	- LL 3003.32: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes - LL 3003.39: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes		
Applications	- Cast Film - Cast Stretch Film - Packaging Films		
Form(s)	Pellets		

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.918 g/cm ³	0.918 g/cm ³	ASTM D1505
Melt Index (190°C/2.16 kg)	3.2 g/10 min	3.2 g/10 min	ASTM D1238
Peak Melting Temperature	255 °F	124 °C	ExxonMobil Method

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	199 °F	93 °C	ASTM D1525

Film Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1300 psi	8.7 MPa	ASTM D882
Tensile Strength at Yield TD	1200 psi	8.2 MPa	ASTM D882
Tensile Strength at Break MD	6900 psi	47 MPa	ASTM D882
Tensile Strength at Break TD	4700 psi	33 MPa	ASTM D882
Elongation at Break MD	510 %	510 %	ASTM D882
Elongation at Break TD	820 %	820 %	ASTM D882
Secant Modulus MD - 1% Secant	19000 psi	130 MPa	ASTM D882
Secant Modulus TD - 1% Secant	21000 psi	150 MPa	ASTM D882
Dart Drop Impact	100 g	100 g	ASTM D1709A
Elmendorf Tear Strength MD	170 g	170 g	ASTM D1922
Elmendorf Tear Strength TD	580 g	580 g	ASTM D1922
Puncture Force	7 lbf	32 N	ExxonMobil Method
Puncture Energy	23 in-lb	2.6 J	ExxonMobil Method

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	91	91	ASTM D2457
Haze	2.0 %	2.0 %	ASTM D1003

