

ExxonMobil™ LDPE LD 051.LQ

Low Density Polyethylene Resin

Product Description

ExxonMobil™ LD 051.LQ blown film resin is a fractional melt index grade designed for demanding heavy duty film applications. It combines excellent strength properties with outstanding processability.

General

Availability ¹	▪ Asia Pacific	▪ Latin America	▪ North America
Additive	▪ Antiblock: 4000 ppm	▪ Slip: No	▪ Thermal Stabilizer: No
Applications	▪ Agricultural Film ▪ Blend Partner ▪ Collation Shrink	▪ Construction Film ▪ Heavy Duty Bags ▪ Pallet Shrink Film	▪ Zipper Bag
Form(s)	▪ Pellets		
Revision Date	▪ 06/17/2020		

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)	0.25 g/10 min	0.25 g/10 min	ASTM D1238
Peak Melting Temperature	230 °F	110 °C	ExxonMobil Method

Thermal

	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	194 °F	90.0 °C	ExxonMobil Method

Film Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1600 psi	11 MPa	ASTM D882
Tensile Strength at Yield TD	1500 psi	10 MPa	ASTM D882
Tensile Strength at Break MD	3600 psi	25 MPa	ASTM D882
Tensile Strength at Break TD	3100 psi	21 MPa	ASTM D882
Elongation at Break MD	100 %	100 %	ASTM D882
Elongation at Break TD	540 %	540 %	ASTM D882
Secant Modulus MD - 1% Secant	26000 psi	180 MPa	ASTM D882
Secant Modulus TD - 1% Secant	35000 psi	240 MPa	ASTM D882
Dart Drop Impact	180 g	180 g	ASTM D1709A
Elmendorf Tear Strength MD	340 g	340 g	ASTM D1922
Elmendorf Tear Strength TD	120 g	120 g	ASTM D1922
Puncture Force	12 lbf	52 N	ExxonMobil Method
Puncture Energy	6.2 in-lb	0.70 J	ExxonMobil Method

Optical Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	35	35	ASTM D2457
Haze	18 %	18 %	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 (2.0 mil/50.8 micron) made from LD 051.LQ resin on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 360-380°F (182-193°C), a 30 mil (0.76 mm) die gap at a rate of 8 lbs/hr/in die circumference (1.43 kg/hr/cm).

ExxonMobil™ LDPE LD 051.LQ
Low Density Polyethylene Resin**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

©2024 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

exxonmobilchemical.com