

# ExxonMobil® LL 5100.09

Linear low-density polyethylene (LLDPE) resins are used to produce a wide range of products. They are commonly processed neat or in blends with LDPE and/or HDPE. Benefits: Versatile and cost effective, Lower seal initiation temperature balanced with mechanical properties, Can reduce costs in high-performance structures. LL 5100.09 is a LLDPE resin designed to provide good processability and ease of blending. The granular form of LL 5100.09 make for efficient blending with pigments, slip and antiblock additives.

Physical Properties	Metric	English	Comments
Density	0.925 g/cc	0.0334 lb/in <sup>3</sup>	ASTM D1505

Melt Flow	20 g/10 min @Load 2.16 kg, Temperature 190 °C	20 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238
-----------	---	---	------------

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	50 @Time 15.0 sec	50 @Time 0.00417 hour	ASTM D2240

Tensile Strength at Break	7.58 MPa	1100 psi	ASTM D638
---------------------------	----------	----------	-----------

Tensile Strength, Yield	14.5 MPa	2100 psi	ASTM D638
-------------------------	----------	----------	-----------

Elongation at Break	60 %	60 %	ASTM D638
---------------------	------	------	-----------

Flexural Modulus, 1% Secant	427 MPa	62000 psi	ASTM D790
-----------------------------	---------	-----------	-----------

Izod Impact, Notched	5.34 J/cm	10.0 ft-lb/in	ASTM D256
----------------------	-----------	---------------	-----------

Thermal Properties	Metric	English	Comments
Melting Point	122 °C	252 °F	Peak; ExxonMobil Method

Brittleness Temperature	<= -76.1 °C	<= -105 °F	ASTM D746
-------------------------	-------------	------------	-----------