

Exact™ 4151 Cast

Ethylene-based Plastomer Resin

Product Description

Exact 4151 is an ethylene-based hexene plastomer produced using ExxonMobil Chemical's EXXPOL® Catalyst Technology. Exact 4151 is designed for both monolayer and multilayer coextruded cast and blown film applications requiring low sealing temperatures, high oxygen transmission and high toughness. Typical applications include seal layers for lamination films used in meat, poultry and produce packaging.

General

Availability ¹	▪ Latin America	▪ North America	
Additive	▪ Antiblock: No	▪ Slip: No	▪ Thermal Stabilizer: Yes
Applications	▪ Cast Film	▪ Lamination Film	
Form(s)	▪ Pellets		
Revision Date	▪ 01/01/2017		

Resin Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.895 g/cm ³	0.895 g/cm ³	ASTM D1505
Melt Index ² (190°C/2.16 kg)	2.2 g/10 min	2.2 g/10 min	ASTM D1238
Peak Melting Temperature	190 °F	88 °C	ExxonMobil Method

Thermal

	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	168 °F	75.6 °C	ExxonMobil Method
Crystallization Peak, T _c	158 °F	70 °C	ExxonMobil Method

Film Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	900 psi	6.2 MPa	ASTM D882
Tensile Strength at Yield TD	480 psi	3.3 MPa	ASTM D882
Tensile Strength at Break MD	11000 psi	80 MPa	ASTM D882
Tensile Strength at Break TD	8000 psi	60 MPa	ASTM D882
Elongation at Break MD	360 %	360 %	ASTM D882
Elongation at Break TD	650 %	650 %	ASTM D882
Secant Modulus MD	7000 psi	48 MPa	ASTM D882
Secant Modulus TD	8900 psi	62 MPa	ASTM D882
Dart Drop Impact	800 g	800 g	ASTM D1709A
Elmendorf Tear Strength MD	110 g	110 g	ASTM D1922
Elmendorf Tear Strength TD	400 g	400 g	ASTM D1922
Puncture Force	17 lbf	77 N	ExxonMobil Method
Puncture Energy	55 in-lb	6.2 J	ExxonMobil Method

Optical Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	91	91	ASTM D2457
Haze	0.5 %	0.5 %	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 (1 mil / 25.4 micron) made from Exact 4151 on a 3.5 inch cast film line with a 5 inch melt curtain, 80°F (27°C) chill roll temperature at a 500 ft/min take-off speed and a melt temperature between 510-530°F (266-277°C).

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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.

² Value reported is an estimate based on ExxonMobil's correlation from melt flow rate data measured at other standard conditions, based on ASTM D 1238.

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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