ExxonMobil Signature Polymers

Exact™ 5101

Ethylene-based Plastomer Resin

Product Description

Exact™ 5101 plastomer resin is an ethylene 1-octene copolymer produced using a proprietary metallocene Technology. Exact™ 5101 is designed for use in both monolayer and multilayer blown film applications requiring outstanding sealing performance and toughness.

Key Features

- Excellent low temperature sealability
- Outstanding toughness and impact strength
- High clarity
- Low hexane extractables
- Low modulus

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ North America	
Applications	▪ Blown Film ▪ Food Packaging	▪ Laminated films ▪ Multilayer Packaging Film	▪ Stretch Hood
Form(s)	▪ Pellets		
Revision Date	▪ 12/08/2022		

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.900	g/cm³	0.900	g/cm³	ASTM D1505
Melt Index (190°C/2.16 kg)	1.1	g/10 min	1.1	g/10 min	ASTM D1238

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Vicat Softening Temperature	170	°F	76.6	°C	ExxonMobil Method
Peak Melting Temperature	198	°F	92	°C	ExxonMobil Method

Films	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield MD	660	psi	4.6	MPa	ASTM D882
Tensile Strength at Yield TD	510	psi	3.5	MPa	ASTM D882
Tensile Strength at Break MD	11000	psi	70	MPa	ASTM D882
Tensile Strength at Break TD	9800	psi	70	MPa	ASTM D882
Elongation at Break MD	440	%	440	%	ASTM D882
Elongation at Break TD	660	%	660	%	ASTM D882
Secant Modulus MD - 1% Secant	7300	psi	50	MPa	ASTM D882
Secant Modulus TD - 1% Secant	8100	psi	56	MPa	ASTM D882
Dart Drop Impact	590	g	590	g	ASTM D1709A
Elmendorf Tear Strength MD	70	g	70	g	ASTM D1922
Elmendorf Tear Strength TD	270	g	270	g	ASTM D1922
Puncture Force	14	lbf	62	N	ExxonMobil Method
Puncture Energy	53	in·lb	6.0	J	ExxonMobil Method

Optical	Typical Value (English)		Typical Value (SI)		Test Based On
Gloss (45°)	81		81		ASTM D2457
Haze	2.4	%	2.4	%	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 (1.0mil/25.4 micron) made from Exact 5101 resin on a 2.6 inch (65 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 400°F (204°C), a 60 mil (1.52 mm) die gap at a rate of 10 lbs/hr/in die circumference(1.79 kg/hr/cm).

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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.

For additional technical, sales and order assistance: Contact Us

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