ExxonMobil Signature Polymers

Exact™ 5151

Ethylene-based Plastomer Resin

Product Description

Exact™ 5151 plastomer resin is an ethylene 1-octene copolymer produced using a proprietary metallocene technology. It exhibits outstanding plastic and elastomeric properties including superior toughness. Exact™ 5151 is designed for modification of polypropylene and polyethylene in a wide range of applications such as injection molding, extrusion blow molding, blown and cast film, and profile extrusion.

Key Features

- Premium low temperature impact modifier
- Free-flowing pellets
- Superior toughness and tear strength

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Applications	▪ Compounding and TPO ▪ General purpose elastomer	▪ Injection Molding ▪ Polymer Modification	▪ Shoe sole, foam, and footwear
Form(s)	▪ Pellets		
Revision Date	▪ 06/22/2026		

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.857	g/cm³	0.857	g/cm³	ExxonMobil Method
Melt Index	1.0	g/10 min	1.0	g/10 min	ExxonMobil Method
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	1.9	g/10 min	1.9	g/10 min	ASTM D1238

Hardness	Typical Value (English)		Typical Value (SI)		Test Based On
Durometer Hardness					ASTM D2240
Shore A	50		50		
Shore D	10		10		

Mechanical	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Stress	> 330	psi	> 2.3	MPa	ASTM D638
Tensile Stress at 100% (73°F (23°C))	150	psi	1.0	MPa	ASTM D638
Tensile Stress at 300% (73°F (23°C))	220	psi	1.5	MPa	ASTM D638
Elongation at Break	> 650	%	> 650	%	ASTM D638
Flexural Modulus - 1% Secant	730	psi	5.0	MPa	ASTM D790

Elastomers	Typical Value (English)		Typical Value (SI)		Test Based On
Tear Strength (Die C)	132	lbf/in	23.1	kN/m	ExxonMobil Method

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Vicat Softening Temperature	102	°F	39.0	°C	ExxonMobil Method

Additional Information

This product is talc dusted.

Legal Statement

This product is not intended for use in medical applications and should not be used in any such applications.

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

Processing Statement

Physical properties were measured on compression molded specimens.

Tensile testing was conducted at a crosshead speed of 20 in/min.

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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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