Product Datasheet

ExxonMobil Signature Polymers

Exceed™ m 1018 series

Metallocene Polyethylene

Product Description

Exceed™ m 1018 are ethylene 1-hexene copolymer resins. Films made from Exceed™ m 1018 resins have outstanding tensile, impact strength and puncture. These superior strength properties, along with excellent drawability, allow downgauging in bag applications. TnPP is not intentionally added to Exceed™ m 1018 resins.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific ▪ Europe ▪ Latin America ▪ North America
Additive	▪ Exceed™ m 1018.MK: Antiblock: 5000 ppm; Slip: 1000 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes ▪ Exceed™ m 1018.MA: Antiblock: No; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes ▪ Exceed™ m 1018.MF: Antiblock: 4500 ppm; Slip: 450 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes ▪ Exceed™ m 1018.MJ: Antiblock: 4500 ppm; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes ▪ Exceed™ m 1018.MB: Antiblock: 2500 ppm; Slip: 800 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes
Applications	▪ Agricultural Film ▪ Bag in Box ▪ Barrier Food Packaging ▪ Blown Film ▪ Blown Stretch Film ▪ Bread Bags ▪ Food Packaging ▪ Form Fill And Seal Packaging ▪ Freezer Film ▪ General Packaging ▪ Heavy Duty Bags ▪ Industrial Packaging ▪ Lamination Film ▪ Multilayer Packaging Film ▪ Overwrap Film ▪ Packaging Films ▪ Premium Trash Bags ▪ Stand Up Pouches ▪ Trash Bags ▪ Trash Can Liners
Revision Date	▪ 07/12/2022

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density / Specific Gravity	0.918	g/cm³	0.918	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	1.0	g/10 min	1.0	g/10 min	ASTM D1238
Peak Melting Temperature	244	°F	118	°C	ExxonMobil Method

Film Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield MD	1300	psi	8.7	MPa	ASTM D882
Tensile Strength at Yield TD	1300	psi	8.8	MPa	ASTM D882
Tensile Strength at Break MD	9400	psi	60	MPa	ASTM D882
Tensile Strength at Break TD	8400	psi	60	MPa	ASTM D882
Elongation at Break MD	500	%	500	%	ASTM D882
Elongation at Break TD	640	%	640	%	ASTM D882
Secant Modulus MD - 1% Secant	24000	psi	170	MPa	ASTM D882
Secant Modulus TD - 1% Secant	26000	psi	180	MPa	ASTM D882
Dart Drop Impact	550	g	550	g	ASTM D1709A
Elmendorf Tear Strength MD	220	g	220	g	ASTM D1922
Elmendorf Tear Strength TD	370	g	370	g	ASTM D1922
Puncture Force	13	lbf	59	N	ExxonMobil Method
Puncture Energy	49	in·lb	5.5	J	ExxonMobil Method

Optical Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Gloss (45°)	43		43		ASTM D2457
Haze	16	%	16	%	ASTM D1003

Manufacturer website: https://www.exxonmobilchemical.com/en/products/polyethylene

ExxonMobil

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Legal Statement

Tris(nonylphenol)phosphite (TNPP) CAS# 26523-78-4 is not intentionally used by ExxonMobil in this product. Although this product is not routinely tested for its presence, based on product composition knowledge this substance is not expected to be present. However, the fact that this substance is not intentionally used by ExxonMobil in this product does not exclude that trace levels of this substance may be present as a result of the specific characteristics of the raw materials and/or of the manufacturing process.

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

Film (1 mil/25.4 micron) made on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 403°F (206°C), a 60 mil (1.52 mm) die gap at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

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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