Product Datasheet

ExxonMobil Signature Polymers

Exceed™ Tough+ m 0518 Series

Metallocene Polyethylene

Product Description

Exceed™ Tough+ m 0518 is an eXtreme Performance ethylene 1-hexene copolymer that offers step-out toughness, high flex-crack resistance and increasedoutput with excellent bubble stability for a range of blown film applications. TnPP is not intentionally added to Exceed™ Tough+ m 0518. Exceed™ Tough+ m 0518 - when eXtreme Performance matters.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Additive	▪ Exceed™ Tough+ m 0518.ML: Antiblock: No; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes ▪ Exceed™ Tough+ m 0518.MJ: Antiblock: 4500 ppm; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes		
Applications	▪ Agricultural Film ▪ Blown Silage	▪ Construction Liners ▪ Flexible Packaging	▪ Liquid Packaging
Revision Date	▪ 07/23/2018		

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)	0.50	g/10 min	0.50	g/10 min	ASTM D1238
Peak Melting Temperature	250	°F	121	°C	ExxonMobil Method

Film Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Tensile Strength at Yield MD	1400	psi	9.7	MPa	ASTM D882
Tensile Strength at Yield TD	1500	psi	10	MPa	ASTM D882
Tensile Strength at Break MD	10000	psi	70	MPa	ASTM D882
Tensile Strength at Break TD	7900	psi	50	MPa	ASTM D882
Elongation at Break MD	300	%	300	%	ASTM D882
Elongation at Break TD	640	%	640	%	ASTM D882
Secant Modulus MD - 1% Secant	29000	psi	200	MPa	ASTM D882
Secant Modulus TD - 1% Secant	36000	psi	250	MPa	ASTM D882
Dart Drop Impact	710	g	710	g	ASTM D1709
Elmendorf Tear Strength MD	530	g	530	g	ASTM D1922
Elmendorf Tear Strength TD	500	g	500	g	ASTM D1922
Puncture Force	12	lbf	53	N	ExxonMobil Method
Puncture Energy	33	in·lb	3.7	J	ExxonMobil Method

Optical Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Gloss (45°)	25		25		ASTM D2457
Haze	23	%	23	%	ASTM D1003

Legal Statement

This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use. For detailed Product Stewardship information, please contact Customer Service.

Exceed™ Tough+ m 0518 Series can - in principle - be used in food contact applications in all EU Member States and in the USA (FDA). Migration oruse limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

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.

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

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Processing Statement

Film (1mil/25.4 micron) made from Exceed™ Tough+ m 0518.ML on a 3.5 inch (90mm) blown film line with a 2.5:1 blow-up ratio, a target melt temperature of 400°F (204°C), a 90 mil (2.286 mm) die gap at a rate of 15 lbs/hr/in diecircumference.

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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