Product Datasheet

ExxonMobil Signature Polymers

Exceed™ m 4518.PA Wire & Cable

Metallocene Polyethylene

Product Description

Exceed™ m 4518.PA performance polymer resin is an ethylene 1-hexene copolymer. It is an excellent blend partner in halogen-free flame retardant compounds and cable jacketing to balance inherent mechanical strength with good processability. It has superior mechanical properties that protect cables in various working conditions. Sufficient carbon black or UV stabilizer should be added to meet cable jacketing specifications.

General

Availability [1]	▪ Asia Pacific ▪ Europe	▪ Latin America ▪ North America	
Additive	▪ Thermal Stabilizer: Yes		
Applications	▪ Communication Cable ▪ Halogen-free flame retardant (HFFR) compounds	▪ High Voltage Jacketing ▪ Low Voltage Jacketing	▪ Medium Voltage Jacketing
Form(s)	▪ Pellets		
Revision Date	▪ 04/01/2019		

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)	4.5	g/10 min	4.5	g/10 min	ASTM D1238
Peak Melting Temperature	235	°F	113	°C	ExxonMobil Method

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Vicat Softening Temperature	217	°F	103	°C	ASTM D1525

Molded Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield					ASTM D638
20 in/min (510 mm/min)	1700	psi	12	MPa	
Tensile Strength at Break					ASTM D638
20 in/min (510 mm/min)	4100	psi	29	MPa	
Elongation at Yield (20 in/min (510 mm/min))	10	%	10	%	ASTM D638
Elongation at Break (20 in/min (510 mm/min))	730	%	730	%	ASTM D638
Flexural Modulus - 1% Secant (0.051 in/min (1.3 mm/min))	33000	psi	230	MPa	ASTM D790A
Durometer Hardness (Shore D, 15 sec)	48		48		ASTM D2240

Electrical	Typical Value (English)		Typical Value (SI)		Test Based On
Volume Resistivity (500 V)	6.4E+14	ohms·m	6.4E+14	ohms·m	IEC 62631-3-1
Relative Permittivity (1 MHz)	2.28		2.28		IEC 62631-2-1
Dissipation Factor (1 MHz)	1.7E-4		1.7E-4		IEC 62631-2-1

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

Specimens were compression molded in accordance with ASTM D 4703, Procedure C.

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

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