

Product Datasheet



Exceed™ 4518PA Wire & Cable

Performance Polymer

Product Description

Exceed™ 4518PA 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/cm ³	0.918 g/cm ³	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 20 in/min (510 mm/min)	1700 psi	12 MPa	ASTM D638
Tensile Strength at Break 20 in/min (510 mm/min)	4100 psi	29 MPa	ASTM D638
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.

Product Datasheet

Exceed™ 4518PA Wire & Cable
Performance Polymer

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: www.exxonmobilchemical.com/ContactUs

©2024 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

exxonmobilchemical.com