

Exceed™ 4518CB Wire & Cable

Performance Polymer

Product Description

Exceed™ 4518CB 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	▪ 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

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

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

Processing Statement

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

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.

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