Product Datasheet

ExxonMobil Signature Polymers

Exceed™ Tough m 3812.CB Wire & Cable

Metallocene Polyethylene

Product Description

Exceed™ Tough m 3812.CB metallocene polyethylene resin is an ethylene 1-hexene copolymer. It is an excellent blend partner in halogen-free flame retardant compounds and cable jacketing to improve flexibility and mechanical properties. These properties protect the cable in various working conditions and provide potential for higher flame retardant filler loading. Sufficient carbon black or UV stabilizer should be addedto meet cable jacketing specifications.

General

Availability [1]	▪ Africa & Middle East ▪ 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	▪ 06/03/2020		

Resin Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Density / Specific Gravity	0.912	g/cm³	0.912	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	3.8	g/10 min	3.8	g/10 min	ASTM D1238
Peak Melting Temperature	232	°F	111	°C	ExxonMobil Method

Thermal	Typical Value	(English)	Typical Value	(SI)	Test Based On
Vicat Softening Temperature	201	°F	94.0	°C	ExxonMobil Method

Molded Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Tensile Stress	4300	psi	30	MPa	ExxonMobil Method
Tensile Strength at Yield 20 in/min (510 mm/min)	1500	psi	10	MPa	ExxonMobil Method
Elongation at Yield (20 in/min (510 mm/min))	80	%	80	%	ExxonMobil Method
Elongation at Break [2] (20 in/min (510 mm/min))	> 800	%	> 800	%	ExxonMobil Method
Flexural Modulus - 1% Secant Procedure A, 0.051 in/min (1.3 mm/min)	27000	psi	190	MPa	ExxonMobil Method
Durometer Hardness (Shore D, 15 sec)	44		44		ExxonMobil Method

Electrical	Typical Value	(English)	Typical Value	(SI)	Test Based On
Volume Resistivity (500 V)	9.4E+14	ohms·m	9.4E+14	ohms·m	IEC 62631-3-1
Relative Permittivity (1 MHz)	2.27		2.27		IEC 62631-2-1
Dissipation Factor (1 MHz)	2.5E-4		2.5E-4		IEC 62631-2-1

Legal Statement

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

All physical properties were measured on compression molded specimens.

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.

[2] The specimens did not break. Equipment reached maximum elongation.

For additional technical, sales and order assistance: Contact Us

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