Product Datasheet

ExxonMobil Signature Polymers

# Exceed™ m 3518.PA Wire & Cable

## Metallocene Polyethylene

### Product Description

Exceed™ m 3518.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 boost mechanical properties such as tensile strength, elongation, tear and crack resistance. These superior mechanical properties protect the cable in various working conditions. Sufficient carbon black or UV stabilizer should be added to meet cable jacketing specifications.

### General

| | | | |
|---|---|---|---|
| Availability [1] | ▪ Asia Pacific<br>▪ Europe | ▪ Latin America<br>▪ North America | |
| Additive | ▪ Thermal Stabilizer: Yes | | |
| Applications | ▪ Communication Cable<br>▪ Halogen-free flame retardant (HFFR) compounds | ▪ High Voltage Jacketing<br>▪ 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) | 3.5 | g/10 min | 3.5 | g/10 min | ASTM D1238 |
| Peak Melting Temperature | 237 | °F | 114 | °C | ExxonMobil Method |

| Thermal | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Vicat Softening Temperature | 221 | °F | 105 | °C | ASTM D1525 |

| Molded Properties | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Tensile Strength at Yield<br>20 in/min (510 mm/min) | 1700 | psi | 12 | MPa | ASTM D638 |
| Tensile Strength at Break<br>20 in/min (510 mm/min) | 4300 | psi | 30 | MPa | ASTM D638 |
| Elongation at Yield<br>(20 in/min (510 mm/min)) | 10 | % | 10 | % | ASTM D638 |
| Elongation at Break<br>(20 in/min (510 mm/min)) | 700 | % | 700 | % | ASTM D638 |
| Flexural Modulus - 1% Secant<br>(0.051 in/min (1.3 mm/min)) | 34000 | psi | 230 | MPa | ASTM D790A |
| Durometer Hardness (Shore D, 15 sec) | 50 | | 50 | | ASTM D2240 |

| Electrical | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Volume Resistivity (500 V) | 1.4E+15 | ohms·m | 1.4E+15 | ohms·m | IEC 62631-3-1 |
| Relative Permittivity (1 MHz) | 2.31 | | 2.31 | | IEC 62631-2-1 |
| Dissipation Factor (1 MHz) | 2.3E-4 | | 2.3E-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