Product Datasheet

ExxonMobil Signature Polymers

# Exceed™ Tough m 3812.PA

## Metallocene Polyethylene

### Product Description

Exceed™ Tough m 3812.PA resin is an ethylene 1-hexene copolymer. Films made from Exceed Tough m 3812.PA resin have outstanding toughness,impact strength, and puncture. These superior strength properties make this a very versatile packaging film resin and ideally suited for stretch film. It can also be used to enhance the sealing caulkability oflower melt index materials. TnPP is not intentionally added to Exceed Tough m 3812.PA resin.

### General

| | | | |
|---|---|---|---|
| Availability [1] | ▪ Africa & Middle East<br>▪ Asia Pacific | ▪ Europe<br>▪ North America | |
| Additive | ▪ Antiblock: No<br>▪ Slip: No | ▪ Processing Aid: No<br>▪ Thermal Stabilizer: Yes | |
| Applications | ▪ Cast Film<br>▪ Cast Stretch Film<br>▪ Extrusion Coating | ▪ Food Packaging<br>▪ Form Fill And Seal Packaging<br>▪ Hygiene film | ▪ Packaging Films |
| Revision Date | ▪ 09/01/2018 | | |

| 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 | 230 | °F | 110 | °C | ExxonMobil Method |

| Film Properties | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Tensile Strength at Yield MD | 780 | psi | 5.3 | MPa | ASTM D882 |
| Tensile Strength at Yield TD | 650 | psi | 4.5 | MPa | ASTM D882 |
| Tensile Strength at Break MD | 6900 | psi | 48 | MPa | ASTM D882 |
| Tensile Strength at Break TD | 6300 | psi | 44 | MPa | ASTM D882 |
| Elongation at Break MD | 450 | % | 450 | % | ASTM D882 |
| Elongation at Break TD | 610 | % | 610 | % | ASTM D882 |
| Secant Modulus MD - 1% Secant | 13000 | psi | 87 | MPa | ASTM D882 |
| Secant Modulus TD - 1% Secant | 14000 | psi | 97 | MPa | ASTM D882 |
| Dart Drop Impact [2] | 610 | g | 610 | g | ASTM D1709A |
| Elmendorf Tear Strength MD | 250 | g | 250 | g | ASTM D1922 |
| Elmendorf Tear Strength TD | 440 | g | 440 | g | ASTM D1922 |

| Optical Properties | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Gloss (45°) | 86 | | 86 | | ASTM D2457 |
| Haze | 2.7 | % | 2.7 | % | ASTM D1003 |

### 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.

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.

### Processing Statement

Film (0.8 mil/20 micron) made on a Black Clawson cast line at a 5.5 inch (14 cm) melt curtain length, 520-540°F (275-310°C) melt temperature, 80°F (27°C) chill roll temperature, and 770 fpm (235 mpm) line speed.



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] Dart Head Type C

## For additional technical, sales and order assistance: Contact Us

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