

Exact™ 5101

Ethylene-based Plastomer Resin

Product Description

Exact™ 5101 plastomer resin is an ethylene 1-octene copolymer produced using a proprietary metallocene Technology. Exact™ 5101 is designed for use in both monolayer and multilayer blown film applications requiring outstanding sealing performance and toughness.

Key Features

- Excellent low temperature sealability
- Outstanding toughness and impact strength
- High clarity
- Low hexane extractables
- Low modulus

General

| | | | |
|---------------------------|--|--|---|
| Availability ¹ | <ul style="list-style-type: none"> ▪ Africa & Middle East ▪ Asia Pacific | <ul style="list-style-type: none"> ▪ Europe ▪ Latin America | <ul style="list-style-type: none"> ▪ North America |
| Applications | <ul style="list-style-type: none"> ▪ Blown Film ▪ Food Packaging | <ul style="list-style-type: none"> ▪ Laminated films ▪ Multilayer Packaging Film | |
| Form(s) | <ul style="list-style-type: none"> ▪ Pellets | | |
| Revision Date | <ul style="list-style-type: none"> ▪ 07/28/2020 | | |

Physical

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|----------------------------|-------------------------|-------------------------|---------------|
| Density | 0.900 g/cm ³ | 0.900 g/cm ³ | ASTM D1505 |
| Melt Index (190°C/2.16 kg) | 1.1 g/10 min | 1.1 g/10 min | ASTM D1238 |

Thermal

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------|-------------------------|--------------------|-------------------|
| Vicat Softening Temperature | 176 °F | 80.0 °C | ExxonMobil Method |
| Peak Melting Temperature | 201 °F | 94 °C | ExxonMobil Method |

Films

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------------------|-------------------------|--------------------|-------------------|
| Tensile Strength at Yield MD | 680 psi | 4.7 MPa | ASTM D882 |
| Tensile Strength at Yield TD | 540 psi | 3.8 MPa | ASTM D882 |
| Tensile Strength at Break MD | 8600 psi | 60 MPa | ASTM D882 |
| Tensile Strength at Break TD | 8500 psi | 60 MPa | ASTM D882 |
| Elongation at Break MD | 420 % | 420 % | ASTM D882 |
| Elongation at Break TD | 680 % | 680 % | ASTM D882 |
| Secant Modulus MD - 1% Secant | 7900 psi | 55 MPa | ASTM D882 |
| Secant Modulus TD - 1% Secant | 9000 psi | 62 MPa | ASTM D882 |
| Dart Drop Impact | 380 g | 380 g | ASTM D1709A |
| Elmendorf Tear Strength MD | 80 g | 80 g | ASTM D1922 |
| Elmendorf Tear Strength TD | 310 g | 310 g | ASTM D1922 |
| Puncture Force | 12 lbf | 54 N | ExxonMobil Method |
| Puncture Energy | 48 in-lb | 5.4 J | ExxonMobil Method |

Optical

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------|-------------------------|--------------------|---------------|
| Gloss (45°) | 82 | 82 | ASTM D2457 |
| Haze | 2.2 % | 2.2 % | 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.

Processing Statement

Film (1 mil/25.4 micron) made from Exact™ 5101 resin on a 2.5 in (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 400-430°F (204-221°C), a 60 mil (1.53 mm) die gap at a rate of 15 lbs/hr/in die circumference (0.85 kg/hr/mm-diameter).

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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: www.exxonmobilchemical.com/ContactUs

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