

Enable™ 2305RI

Performance Polymer

Product Description

Enable™ 2305RI is an ethylene 1-hexene copolymer resin. Enable™ performance polymer resins offer an outstanding balance between processing and film properties, including tensile, impact and puncture. Easier processing and excellent properties lead to significant high pressure LDPE replacement in many applications, yet with superior drawdown and enhanced toughness. Enable™ 2305 resins are available with and without antiblock. Fluoropolymers, or fluorine-containing compounds, and TNPP are not intentionally added to Enable™ 2305RI resins.

General

| | |
|---------------------------|---|
| Availability ¹ | ▪ North America |
| Additive | ▪ Antiblock: 2000 ppm ▪ Slip: No ▪ Thermal Stabilizer: Yes ▪ Alternative Processing Aid: Yes |
| Applications | ▪ Agricultural Film ▪ Blown Film ▪ Collation Shrink ▪ Food Packaging ▪ Form Fill And Seal Packaging ▪ Heavy Duty Bags ▪ Lamination Film ▪ Multilayer Packaging Film ▪ Shrink Film ▪ Stand Up Pouches |
| Form(s) | ▪ Pellets |
| Revision Date | ▪ 04/19/2024 |

Resin Properties

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|----------------------------|-------------------------|-------------------------|-------------------|
| Density / Specific Gravity | 0.923 g/cm ³ | 0.923 g/cm ³ | ASTM D792 |
| Melt Index (190°C/2.16 kg) | 0.50 g/10 min | 0.50 g/10 min | ASTM D1238 |
| Peak Melting Temperature | 241 °F | 116 °C | ExxonMobil Method |

Thermal

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------|-------------------------|--------------------|-------------------|
| Vicat Softening Temperature | 230 °F | 110 °C | ExxonMobil Method |

Film Properties

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------------------|-------------------------|--------------------|-------------------|
| Tensile Strength at Yield MD | 1600 psi | 11 MPa | ASTM D882 |
| Tensile Strength at Yield TD | 1700 psi | 12 MPa | ASTM D882 |
| Tensile Strength at Break MD | 8600 psi | 60 MPa | ASTM D882 |
| Tensile Strength at Break TD | 7600 psi | 50 MPa | ASTM D882 |
| Elongation at Break MD | 480 % | 480 % | ASTM D882 |
| Elongation at Break TD | 730 % | 730 % | ASTM D882 |
| Secant Modulus MD - 1% Secant | 35000 psi | 240 MPa | ASTM D882 |
| Secant Modulus TD - 1% Secant | 41000 psi | 280 MPa | ASTM D882 |
| Dart Drop Impact | 170 g | 170 g | ASTM D1709A |
| Elmendorf Tear Strength MD | 70 g | 70 g | ASTM D1922 |
| Elmendorf Tear Strength TD | 620 g | 620 g | ASTM D1922 |
| Puncture Force | 12 lbf | 51 N | ExxonMobil Method |
| Puncture Energy | 29 in-lb | 3.3 J | ExxonMobil Method |

Optical Properties

| | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------|-------------------------|--------------------|---------------|
| Gloss (45°) | 52 | 52 | ASTM D2457 |
| Haze | 9.3 % | 9.3 % | ASTM D1003 |

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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.

Fluoropolymers, or fluorine-containing compounds, and tris(nonylphenol) phosphite (TNPP) CAS# 26523-78-4 are not intentionally used by ExxonMobil in this product. Although this product is not routinely tested for their presence, based on product composition knowledge these substances are not expected to be present. However, the fact that these substances are not intentionally used by ExxonMobil in this product does not exclude that trace levels of these substances may be present as a result of the specific characteristics of the raw materials and/or of the manufacturing process.

Processing Statement

Film (1 mil/25.4 micron) made on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 380-400°F (193-204°C), a 30 mil (0.76 mm) die gap at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

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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