ExxonMobil

# Exceed™ 1018RK

## Performance Polymer

### Product Description

Exceed™ 1018RK is an ethylene 1-hexene copolymer resin. Films that incorporate Exceed™ 1018RK can enable outstanding tensile, impact strength and puncture. These superior strength properties, along with excellent drawability, can support downgauging in bag applications. Fluoropolymers, or fluorine-containing compounds, and TNPP are not intentionally added to Exceed™ 1018RK.

### General

| | | | |
|---|---|---|---|
| Availability [1] | ▪ Africa & Middle East<br>▪ Asia Pacific | ▪ Europe<br>▪ Latin America | ▪ North America |
| Additive | ▪ Antiblock: 5000 ppm<br>▪ Slip: 1000 ppm | ▪ Thermal Stabilizer: Yes<br>▪ Alternative Processing Aid: Yes | |
| Applications | ▪ Agricultural Film<br>▪ Bag in Box<br>▪ Barrier Food Packaging<br>▪ Blown Film<br>▪ Blown Stretch Film<br>▪ Bread Bags<br>▪ Food Packaging | ▪ Form Fill And Seal Packaging<br>▪ Freezer Film<br>▪ General Packaging<br>▪ Heavy Duty Bags<br>▪ Industrial Packaging<br>▪ Lamination Film<br>▪ Multilayer Packaging Film | ▪ Overwrap Film<br>▪ Packaging Films<br>▪ Premium Trash Bags<br>▪ Stand Up Pouches<br>▪ Trash Bags<br>▪ Trash Can Liners |
| Revision Date | ▪ 04/19/2024 | | |

| 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) | 1.0 | g/10 min | 1.0 | g/10 min | ASTM D1238 |
| Peak Melting Temperature | 244 | °F | 118 | °C | ExxonMobil Method |

| Film Properties | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Tensile Strength at Yield MD | 1300 | psi | 8.7 | MPa | ASTM D882 |
| Tensile Strength at Yield TD | 1300 | psi | 8.8 | MPa | ASTM D882 |
| Tensile Strength at Break MD | 9400 | psi | 60 | MPa | ASTM D882 |
| Tensile Strength at Break TD | 8400 | psi | 60 | MPa | ASTM D882 |
| Elongation at Break MD | 500 | % | 500 | % | ASTM D882 |
| Elongation at Break TD | 640 | % | 640 | % | ASTM D882 |
| Secant Modulus MD - 1% Secant | 24000 | psi | 170 | MPa | ASTM D882 |
| Secant Modulus TD - 1% Secant | 26000 | psi | 180 | MPa | ASTM D882 |
| Dart Drop Impact | 550 | g | 550 | g | ASTM D1709A |
| Elmendorf Tear Strength MD | 220 | g | 220 | g | ASTM D1922 |
| Elmendorf Tear Strength TD | 370 | g | 370 | g | ASTM D1922 |
| Puncture Force | 13 | lbf | 59 | N | ExxonMobil Method |
| Puncture Energy | 49 | in·lb | 5.5 | J | ExxonMobil Method |

| Optical Properties | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Gloss (45°) | 43 | | 43 | | ASTM D2457 |
| Haze | 16 | % | 16 | % | 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.

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.

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Performance Polymer

## 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 403°F (206°C), a 60 mil (1.52 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.

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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