

## Product Datasheet



# Exceed™ XP 7021RA

## Performance Polymer

### Product Description

Exceed™ XP 7021RA is an extreme Performance linear low density polyethylene 1-hexene copolymer that is especially designed to have high melt strength and superior mechanical and optical properties. The combination of high toughness (impact and puncture), melt stability, superior flex crack resistance and good sealing performance makes this grade a versatile blown film resin. TnPP is not intentionally added to Exceed™ XP 7021RA.

### General

|                           |                                                                                                                                                    |                                                                                                                                              |                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Availability <sup>1</sup> | <ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Asia Pacific</li> </ul>                                                   | <ul style="list-style-type: none"> <li>Europe</li> <li>Latin America</li> </ul>                                                              | <ul style="list-style-type: none"> <li>North America</li> </ul>                                                              |
| Additive                  | <ul style="list-style-type: none"> <li>Antiblock: No</li> <li>Slip: No</li> </ul>                                                                  | <ul style="list-style-type: none"> <li>Thermal Stabilizer: Yes</li> <li>Alternative Processing Aid: Yes</li> </ul>                           |                                                                                                                              |
| Applications              | <ul style="list-style-type: none"> <li>Blow Molding</li> <li>Blown Geomembrane</li> <li>Construction Liners</li> <li>Flexible Packaging</li> </ul> | <ul style="list-style-type: none"> <li>Food Packaging</li> <li>Greenhouse Film</li> <li>Lamination Film</li> <li>Liquid Packaging</li> </ul> | <ul style="list-style-type: none"> <li>Shrink Film</li> <li>Stretch and Shrink Sleeves</li> <li>Stretch Hood Film</li> </ul> |
| Form(s)                   | <ul style="list-style-type: none"> <li>Pellets</li> </ul>                                                                                          |                                                                                                                                              |                                                                                                                              |
| Revision Date             | <ul style="list-style-type: none"> <li>04/04/2023</li> </ul>                                                                                       |                                                                                                                                              |                                                                                                                              |

| Resin Properties           | Typical Value (English) | Typical Value (SI)      | Test Based On |
|----------------------------|-------------------------|-------------------------|---------------|
| Density / Specific Gravity | 0.911 g/cm <sup>3</sup> | 0.911 g/cm <sup>3</sup> | ASTM D792     |
| Melt Index (190°C/2.16 kg) | 0.20 g/10 min           | 0.20 g/10 min           | ASTM D1238    |

| Film Properties               | Typical Value (English) | Typical Value (SI) | Test Based On     |
|-------------------------------|-------------------------|--------------------|-------------------|
| Tensile Strength at Yield MD  | 1000 psi                | 6.9 MPa            | ASTM D882         |
| Tensile Strength at Yield TD  | 1000 psi                | 7.2 MPa            | ASTM D882         |
| Tensile Strength at Break MD  | 11000 psi               | 70 MPa             | ASTM D882         |
| Tensile Strength at Break TD  | 10000 psi               | 70 MPa             | ASTM D882         |
| Elongation at Break MD        | 360 %                   | 360 %              | ASTM D882         |
| Elongation at Break TD        | 600 %                   | 600 %              | ASTM D882         |
| Secant Modulus MD - 1% Secant | 17000 psi               | 120 MPa            | ASTM D882         |
| Secant Modulus TD - 1% Secant | 23000 psi               | 160 MPa            | ASTM D882         |
| Dart Drop Impact              | 1100 g                  | 1100 g             | ASTM D1709A       |
| Elmendorf Tear Strength MD    | 40 g                    | 40 g               | ASTM D1922        |
| Elmendorf Tear Strength TD    | 210 g                   | 210 g              | ASTM D1922        |
| Puncture Force                | 15 lbf                  | 66 N               | ExxonMobil Method |
| Puncture Energy               | 45 in-lb                | 5.1 J              | ExxonMobil Method |

| Optical Properties | Typical Value (English) | Typical Value (SI) | Test Based On |
|--------------------|-------------------------|--------------------|---------------|
| Gloss (45°)        | 52                      | 52                 | ASTM D2457    |
| Haze               | 8.4 %                   | 8.4 %              | ASTM D1003    |

### 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.

Exceed™ XP 7021ML can in principle be used in food contact applications in all EU Member States and in the USA (FDA). Migration or use limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use. For detailed Product Stewardship information, please contact Customer Service.

## Product Datasheet

**Exceed™ XP 7021RA**  
Performance Polymer**Processing Statement**

Film (1 mil/25.4 micron) made on a 3.5 in(90mm)blown film line with a 2.5:1 blow-up ratio, a target melt temperature of 450°F(218°C), a 30 mil(0.76mm)die gap at a rate of 5 lbs/hr/rpm.

**Notes**

Typical properties: these are not to be construed as specifications.

<sup>1</sup> 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](http://www.exxonmobilchemical.com/ContactUs)

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