

# Vistamaxx™ Performance Polymer 3980FL

## Propylene Elastomer

### Product Description

Vistamaxx 3980FL is primarily composed of isotactic propylene repeat units with random ethylene distribution. It is produced using ExxonMobil's proprietary metallocene catalyst technology. The 'FL' designates this product passes ExxonMobil's test for film appearance with regard to gels, as needed for performance film applications ('A' rating).

### Key Features

- Suitable for a wide range of cast and blown film, molding and various polymer modification and compounding applications.
- Can be blended with PP, PE and other polyolefins to reduce stress-whitening and improve impact properties.
- Excellent adhesion to conventional and metallocene PP and PE for exceptional extrusion coating, lamination and tie-layer performance.
- Very low seal initiation temperature combined with high seal strength when used as a sealing layer of co-extruded structures.
- Good optical properties.
- Good chemical resistance to aqueous systems and non-hydrocarbon based fluids.
- May be used in food contact applications (see FDA and EU notes).
- RoHS compliant.

### 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>        |
| Applications              | <ul style="list-style-type: none"> <li>▪ Blown Film</li> <li>▪ Cast Film</li> </ul>                  | <ul style="list-style-type: none"> <li>▪ Compounding</li> <li>▪ Molding</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Polymer Modification</li> </ul> |
| Uses                      | <ul style="list-style-type: none"> <li>▪ Compounding</li> </ul>                                      | <ul style="list-style-type: none"> <li>▪ Film</li> </ul>                            | <ul style="list-style-type: none"> <li>▪ Packaging</li> </ul>            |
| RoHS Compliance           | <ul style="list-style-type: none"> <li>▪ RoHS Compliant</li> </ul>                                   |   |  |
| Form(s)                   | <ul style="list-style-type: none"> <li>▪ Pellets</li> </ul>  |   |  |
| Revision Date             | <ul style="list-style-type: none"> <li>▪ 01/01/2017</li> </ul>                                       |   |  |

| Physical   | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|--|-------------------------|-------------------------|-------------------|
| Density <sup>2</sup>                                   | 0.879 g/cm <sup>3</sup> | 0.879 g/cm <sup>3</sup> | ASTM D1505        |
| Melt Index <sup>2</sup> (190°C/2.16 kg)                | 3.6 g/10 min            | 3.6 g/10 min            | ASTM D1238        |
| Melt Mass-Flow Rate (MFR) <sup>2</sup> (230°C/2.16 kg) | 8 g/10 min              | 8 g/10 min              | ExxonMobil Method |
| Ethylene Content                                       | 9 wt%                   | 9 wt%                   | ExxonMobil Method |

| Hardness                     | Typical Value (English) | Typical Value (SI) | Test Based On |
|------------------------------|-------------------------|--------------------|---------------|
| Durometer Hardness (Shore D) | 34                      | 34                 | ASTM D2240    |

| Mechanical                   | Typical Value (English) | Typical Value (SI) | Test Based On     |
|------------------------------|-------------------------|--------------------|-------------------|
| Tensile Stress at 100%       | 953 psi                 | 6.57 MPa           | ASTM D638         |
| Tensile Stress at 300%       | 1030 psi                | 7.10 MPa           | ASTM D638         |
| Tensile Strength at Yield    | 1150 psi                | 7.92 MPa           | ASTM D638         |
| Tensile Strength at Break    | > 2800 psi              | > 19.3 MPa         | ASTM D638         |
| Tensile Set                  | 73 %                    | 73 %               | ExxonMobil Method |
| Elongation at Yield          | 27 %                    | 27 %               | ASTM D638         |
| Elongation at Break          | > 800 %                 | > 800 %            | ASTM D638         |
| Flexural Modulus - 1% Secant | 17000 psi               | 117 MPa            | ASTM D790         |

| Elastomers            | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------|-------------------------|--------------------|---------------|
| Tear Strength (Die C) | 476 lbf/in              | 83.4 kN/m          | ASTM D624     |

| Thermal                     | Typical Value (English) | Typical Value (SI) | Test Based On     |
|-----------------------------|-------------------------|--------------------|-------------------|
| Vicat Softening Temperature | 171 °F                  | 77.3 °C            | ExxonMobil Method |

## Vistamaxx™ Performance Polymer 3980FL Propylene Elastomer

### Additional Information

Please contact Customer Service for food law compliance information.

For data specific to chemical resistance, refer to the Technical Literature (TL), Chemical Resistance of Vistamaxx Performance Polymer.

### Legal Statement

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.

### Processing Statement

Vistamaxx polymers have a wide temperature processing window. A good starting point for temperatures is 10°C above the highest melting point. This material does not require drying and can be compounded or used in a dry blend. Use conventional processing knowledge to ensure mixing of the materials.

### 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.

<sup>2</sup> Property specified in conventional unit of measure.

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

©2020 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Chemical" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

[exxonmobilchemical.com](http://exxonmobilchemical.com)