

# Exxelor™ VA 1801

## Polymer Resin

### Product Description

Exxelor VA 1801 polymer resin is a medium viscosity, semi-crystalline ethylene copolymer functionalized with maleic anhydride by reactive extrusion. Its fully saturated backbone results in outstanding thermal and oxidative stability leading to enhanced weatherability. Moreover, its elastomeric nature provides high impact resistance at room temperature and at low temperature when blended with engineering polymers such as polyamide.

This grade is designed to:

- Modify the impact characteristics of the full range of polyamides for temperatures as low as -20°C (a function of the modifier treat level in the blend).
- Modify the impact characteristics of other engineering thermoplastics and technical polymers (with or without glass fibers, fillers, etc.).
- Achieve compatibility between polyolefins and more polar polymers that are capable of interacting with maleic anhydride.

### Key Features

Performance enhancements in polyamide:

- Outstanding notched Izod impact resistance at room temperature.
- Very high notched Izod impact resistance down to -20°C.
- Improved flexibility.
- Reduced moisture sensitivity and improved dimensional stability allowing the production of molded parts with different wall thickness.
- Improved assembly of freshly molded parts.
- Increased impact resistance of glass-reinforced compositions.

### 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>
Revision Date	<ul style="list-style-type: none"> <li>• 07/31/2014</li> </ul>		

### Physical

	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.880 g/cm <sup>3</sup>	0.880 g/cm <sup>3</sup>	ExxonMobil Method
Melt Mass-Flow Rate (MFR) (230°C/10.0 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (230°C/10.0 kg)	9.0 g/10 min	9.0 g/10 min	ISO 1133
Maleic Anhydride Graft Level <sup>2</sup>	High	High	FTIR EPK-04 QT-02
Volatiles	< 0.15 %	< 0.15 %	AM-S 350.03

### Thermal

	Typical Value (English)	Typical Value (SI)	Test Based On
Glass Transition, T <sub>g</sub>	-47 °F	-44 °C	ExxonMobil Method

### Optical

	Typical Value (English)	Typical Value (SI)	Test Based On
Yellowness Index	< 15 YI	< 15 YI	ASTM E313

### Additional Information

Storage and Handling: Comprehensive material safety data sheets are provided to recommend safe practices during usage. For easy handling and storage, this grade is supplied as free-flowing pellets normally packed in 25 kg bags (50 bags per pallet), 450 kg octabins or 900 kg supersacks.

### 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

Exxelor VA 1801 resin can be added to polyamide to achieve optimum dispersion within the polymer matrix (average particle size below 1 micron) in order to obtain the best performance. Compounding parameters that can lead to optimized performance include extruder type, screw design, barrel temperature, screw speed, throughput and residence time. Our experienced technical service engineers and chemists are always on hand to help you in achieving the best performance from your processing and compounding operations.

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Polymer Resin

## 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> MA level is typically in the range of 0.5 to 1.0 wt%.

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