

ExxonMobil EXXELOR™ VA 1803 Maleic anhydride functionalized elastomeric ethylene copolymer

Categories: [Other Engineering Material](#); [Additive/Filler for Polymer](#); [Polymer](#); [Thermoplastic](#); [Elastomer, TPE](#); [Polyethylene \(PE\)](#)

Material Notes: Product Description: Exxelor VA 1803 polymer resin is a high flow, amorphous ethylene copolymer functionalized with maleic anhydride by reactive extrusion. Its fully saturated backbone results in outstanding thermal and oxidative stability leading to enhanced weaterability. Moreover, its amorphous nature exhibits impact resistance at very low temperatures in blends 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 -40°C (a function of the modifier treat level in the blend).
- Offer the best balance between stiffness and low temperature performance in polyamide blends.
- Modify the impact characteristics of other engineering thermoplastic 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 blends:

- Outstanding notched Izod impact resistance at room temperature.
- Consistent and very high notched Izod impact resistance down to -40°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.

Availability: Africa & Middle East, Europe, North America, Asia Pacific, Latin America and South America

Information provided by ExxonMobil Chemical

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	0.860 g/cc	0.0311 lb/in ³	ExxonMobil Method
Melt Flow 	3.3 g/10 min	3.3 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 230 °C	@Load 4.76 lb, Temperature 446 °F	
	22 g/10 min	22 g/10 min	ASTM D1238
	@Load 10.0 kg, Temperature 230 °C	@Load 22.0 lb, Temperature 446 °F	
Collected Volatile Condensable Material	<= 0.15 %	<= 0.15 %	AM-S 350.03

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	-59.0 °C	-74.2 °F	DSC

Optical Properties	Metric	English	Comments
Yellow Index	<= 20 %	<= 20 %	ASTM E313-96

Descriptive Properties

Maleic anhydride graft level high

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.