ExxonMobil

Exxelor™ VA 1803

Polymer Resin

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 weatherability. 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 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 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.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Revision Date	▪ 12/21/2009		

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.860	g/cm³	0.860	g/cm³	ExxonMobil Method
Melt Mass-Flow Rate (MFR)					ASTM D1238
230°C/2.16 kg	3.3	g/10 min	3.3	g/10 min	
230°C/10.0 kg	22	g/10 min	22	g/10 min	
Melt Mass-Flow Rate (MFR)					ISO 1133
230°C/2.16 kg	3.3	g/10 min	3.3	g/10 min	
230°C/10.0 kg	22	g/10 min	22	g/10 min	
Maleic Anhydride Graft Level [2]	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, Tg	-74	°F	-59	°C	ExxonMobil Method

Optical	Typical Value (English)		Typical Value (SI)		Test Based On
Yellowness Index	< 20	YI	< 20	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 in 25 kg bags placed in specially designed boxes (40 bags per pallet).

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.

For detailed Product Stewardship information, please contact Customer Service.

ExxonMobil

Exxelor™ VA 1803
Polymer Resin

Processing Statement

Exxelor VA 1803 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. Its low viscosity makes it particularly suitable for processing glass-reinforced PA compositions. 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.

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.

[2] MA level is typically in the range of 0.5 to 1.0 wt%.

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

exxonmobilchemical.com