

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.

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.860 g/cm ³	0.860 g/cm ³	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, T _g	-74 °F	-59 °C	ExxonMobil Method
Optical	Typical Value (English)	Typical Value (SI)	Test Based On
Yellowness Index	< 20 YI	< 20 YI	ASTM E313

