ExxonMobil

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.

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.880	g/cm³	0.880	g/cm³	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 [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	-47	°F	-44	°C	ExxonMobil Method

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