

Exxelor™ PE 1040

Polymer Resin

Product Description

Exxelor PE 1040 polymer resin is a maleic anhydride functionalized high density polyethylene, produced by reactive extrusion. It has been primarily designed to act as a coupling agent in filled polyethylene compounds, or as a coupling agent or tie layer in multilayer polyethylene systems to ensure compatibility and improve adhesion of the different layers.

This grade is designed to:

- Function as a coupling agent between reinforcing materials such as natural and mineral fillers and high density polyethylene to improve mechanical properties.
- Achieve compatibility and adhesion between high density polyethylene and polyamide.
- Function as a tie layer in multilayer tank systems with high density polyethylene and a barrier layer.

Key Features

Performance enhancements in natural and mineral-filled:

- Improved mechanical properties.
- Improved notched Izod and Charpy impact strength.
- Reduced water absorption.
- Adhesion as a tie layer in polyethylene based multilayer tank systems.

General

Availability ¹	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific 	<ul style="list-style-type: none"> Europe Latin America 	<ul style="list-style-type: none"> North America
Revision Date	12/20/2012		

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.960 g/cm ³	0.960 g/cm ³	ExxonMobil Method
Melt Index (190°C/2.16 kg)	1.4 g/10 min	1.4 g/10 min	ASTM D1238
Melt Index (190°C/2.16 kg)	1.4 g/10 min	1.4 g/10 min	ISO 1133
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.4 g/10 min	3.4 g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.4 g/10 min	3.4 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
Peak Melting Temperature	273 °F	134 °C	ExxonMobil Method

Optical	Typical Value (English)	Typical Value (SI)	Test Based On
Yellowness Index	< 10 YI	< 10 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 1 ton supersacks.

Legal Statement

For detailed Product Stewardship information, please contact Customer Service.

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.



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Exxelor PE 1040 resin can be added to high density polyethylene to achieve optimum dispersion with the natural or mineral filler system and result in the best performance. Compounding parameters that can lead to optimized performance include extruder type, screw design, barrel temperature, screw speed, throughput, residence time and material feeding sequence. 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

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