

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	<ul style="list-style-type: none"> 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 Mass-Flow Rate (MFR) ²			ExxonMobil Method
190°C/2.16 kg	1 g/10 min	1 g/10 min	
230°C/2.16 kg	3 g/10 min	3 g/10 min	
Maleic Anhydride Graft Level ³	High	High	ExxonMobil Method
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

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.

Processing Statement

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.

Exxelor™ PE 1040 Polymer Resin

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 Value reported is an estimate based on ExxonMobil's correlation from production data measured at other standard conditions: Based on ASTM D1238; ISO 1133

³ MA level is typically in the range of 0.5 to 1.0 wt%. Value reported is an estimate based on ExxonMobil's correlation from production data measured at other standard conditions.

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

©2020 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Chemical" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

exxonmobilchemical.com