

# Optema™ TC 221 Molding

## Ethylene Methyl Acrylate Copolymer Resin

### Product Description

Optema™ TC 221 is an ethylene methyl acrylate copolymer that can be used in specialty bonding applications and as a toughener for engineering polymers. It can be processed at temperatures as low as 200°F (93°C) and as high as 600°F (315°C).

### General

Availability <sup>1</sup>	<ul style="list-style-type: none"> <li>Latin America</li> <li>North America</li> </ul>
Additive	<ul style="list-style-type: none"> <li>Antiblock: No</li> <li>Slip: No</li> <li>Thermal Stabilizer: Yes</li> </ul>
Applications	<ul style="list-style-type: none"> <li>Compatibilizer</li> <li>Engineering Polymer Toughener</li> <li>Low Temperature Sealant Compounds</li> <li>Masterbatch Base Resin</li> </ul>
Revision Date	<ul style="list-style-type: none"> <li>01/22/2019</li> </ul>

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.944 g/cm <sup>3</sup>	0.944 g/cm <sup>3</sup>	ASTM D1505
Melt Index (190°C/2.16 kg)	5.0 g/10 min	5.0 g/10 min	ASTM D1238
Methyl Acrylate Content	24.0 wt%	24.0 wt%	ExxonMobil Method
Peak Melting Temperature	163 °F	73 °C	ExxonMobil Method

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	113 °F	45 °C	ASTM D1525

Molded Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Break	970 psi	6.7 MPa	ASTM D638
Elongation at Break	> 600 %	> 600 %	ASTM D638
Flexural Modulus - 1% Secant	3900 psi	27 MPa	ASTM D790
Durometer Hardness			ASTM D2240
Shore A, 15 sec	82	82	
Shore D, 15 sec	24	24	

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Instrumented Dart Impact			ASTM D3763
-40°F (-40°C)	17 ft-lb	23 J	
73°F (23°C)	13 ft-lb	18 J	

### Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product is not intended for use in medical applications and should not be used in any such applications.

### Processing Statement

The test specimens were prepared using ASTM D4703, Procedure C.

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

Optema™ TC 221 Molding  
Ethylene Methyl Acrylate Copolymer Resin

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

©2024 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 Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

[exxonmobilchemical.com](http://exxonmobilchemical.com)