

## Product Datasheet



# 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> | ▪ Latin America                                     | ▪ North America                                                 |
| Additive                  | ▪ Antiblock: No                                     | ▪ Slip: No      ▪ Thermal Stabilizer: Yes                       |
| Applications              | ▪ Compatibilizer<br>▪ Engineering Polymer Toughener | ▪ Low Temperature Sealant Compounds<br>▪ Masterbatch Base Resin |
| Revision Date             | ▪ 01/22/2019                                        |                                                                 |

| 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.

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**ExxonMobil****Optema™ TC 221 Molding**  
Ethylene Methyl Acrylate Copolymer ResinFor additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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