

Product Datasheet

# ExxonMobil™ HDPE HD 8660 Series

## High Density Polyethylene Resin



### Product Description

HD 8660 Series are high density hexene copolymers designed to offer superior toughness and stiffness. They are ideally suited for applications that require the optimum balance of low temperature toughness, creep resistance, stiffness, ESCR, and tear properties.

### General

|                           |   |   |
|---------------------------|---|---|
| Availability <sup>1</sup> | Latin America                               | North America   |
| Additive                  | HD 8660.29: Long Term UV-15 Stabilizer: Yes | HDP8660.29: Long Term UV-15 Stabilizer: Yes           |
| Applications              | Industrial Products                         | Intermediate Bulk Containers Large Agricultural Tanks |
| Revision Date             | 09/01/2014                                  |   |

### Resin Properties

|   | Typical Value (English) | Typical Value (SI)      | Test Based On    |
|---|-------------------------|-------------------------|------------------|
| Density                                   | 0.941 g/cm <sup>3</sup> | 0.941 g/cm <sup>3</sup> | ASTM D1505       |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 2.0 g/10 min            | 2.0 g/10 min            | ASTM D1238 (mod) |

### Thermal

|   | Typical Value (English) | Typical Value (SI) | Test Based On |
|---|-------------------------|--------------------|---------------|
| Deflection Temperature Under Load (DTUL) at 66psi - Unannealed  | 135 °F                  | 57 °C              | ASTM D648     |
| Deflection Temperature Under Load (DTUL) at 264psi - Unannealed | 100 °F                  | 38 °C              | ASTM D648     |
| Peak Melting Temperature  | 264 °F                  | 129 °C             | ASTM D3418    |

### Molded Properties

|  | Typical Value (English) | Typical Value (SI) | Test Based On |
|--|-------------------------|--------------------|---------------|
| Tensile Strength at Yield<br>2.0 in/min (50 mm/min)      | 2800 psi                | 19 MPa             | ASTM D638     |
| Elongation at Yield (2.0 in/min (50 mm/min))             | 10 %                    | 10 %               | ASTM D638     |
| Flexural Modulus - 1% Secant                             | 130000 psi              | 900 MPa            | ASTM D790B    |
| Environmental Stress-Crack Resistance<br>10% Igepal, F50 | 40 hr                   | 40 hr              | ASTM D1693A   |
| 100% Igepal, F50   | 560 hr                  | 560 hr             |               |

### Impact

|  | Typical Value (English) | Typical Value (SI) | Test Based On |
|--|-------------------------|--------------------|---------------|
| Impact Strength<br>-40°F (-40°C), 0.125 in (3.18 mm) | 68 ft-lb                | 92 J               | ARM           |
| 0.250 in (6.35 mm)                                   | 190 ft-lb               | 258 J              |               |

### Additional Information

- All physical properties were measured on 3 mm. rotomolded samples unless a different value is shown, except for ESCR, which was measured on compression molded samples.
- Tensile testing was conducted at a crosshead speed of 50 mm/min. The tensile strength reported refers to the maximum stress reached during the test.
- Test procedures may be modified to accommodate operating conditions or facility limitations.

### 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.

### 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.

ExxonMobil™ HDPE HD 8660 Series  
High Density Polyethylene Resin

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

©2022 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)