# ExxonMobil HD 8660
Rotational Molding HDPE

ExxonMobil Chemical

## Material Description

**HD 8660** is a high density hexene copolymer designed to offer superior toughness and stiffness. This resin is ideally suited for applications that require the optimum balance of low temperature toughness, creep resistance, stiffness, ESCR, and tear properties.

## Typical Applications

Large agricultural tanks
Intermediate bulk containers
Industrial products

**HD 8660.29** **Pellet Form**; Long term UV8 stabilization
**HDP8660.29** **35 US Mesh Powder**; Long term UV8 stabilization

| Resin Properties | Test Based On[4] | Units | Typical Value[1] |
|---|---|---|---|
| Melt Index | ASTM D-1238 | g/10 min. | 2.0 |
| Density | ASTM D-4883 or ASTM D-1505 | $g/cm^3$ | 0.942 |
| Melting Point | ExxonMobil Method | °C (°F) | 129 (264) |
| **Molded Properties**[2] | | | |
| Tensile Strength at Yield[3] | ASTM D-638 | MPa (psi) | 20.3 (2950) |
| Tensile Break Elongation | ASTM D-638 | % | > 1000 |
| Flexural Modulus 1% Secant | ASTM D-790 Procedure B | MPa (psi) | 888 (129,000) |
| Impact Strength @ -40°C | ARM | J ($ft\text{-}lbs_f$) | |
| 1/8" (3.17 mm) thickness | | | 108 (80) |
| 1/4" (6.35 mm) thickness | | | 244 (180) |
| Environmental Stress Crack Resistance (ESCR), $F_{50}$ | ASTM D-1693 Condition A | hr | |
| 100% Igepal | | | 550 |
| 10% Igepal | | | 48 |
| Deflection Temperature | ASTM D-648 | °C (°F) | |
| @ 66 psi (455 Kpa) | | | 67 (153) |
| @ 264 psi (1820 Kpa) | | | 41 (106) |

1. Values given are typical and should not be interpreted as specifications. Values may change with future development.
2. All physical properties were measured on rotomolded samples, except for ESCR, which was measured on compression molded samples.
3. 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.
4. ASTM test procedures may be modified to accommodate operating conditions or facility limitations.
5. Grades have NSF and UL recognition. Contact your ExxonMobil representative for details.

## Food Packaging

Grades have FDA compliance. Restrictions may apply, contact your ExxonMobil representative for more details.

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