ExxonMobil Signature Polymers

# ExxonMobil™ HD 4850 Series

*(Legacy name: ExxonMobil™ HDPE HD 8760 Series)*

## High Density Polyethylene

### Product Description

HD 4850 is a high density hexene copolymer designed to offer outstanding stiffness and processability. This resin is ideally suited for applications that require the optimum balance of stiffness, processability and surface appearance.

### General

| | | |
|---|---|---|
| Availability [1] | ▪ Latin America | ▪ North America |
| Additive | ▪ HD 4850R.UV: Long Term UV-20 Stabilizer: Yes | ▪ HD 4850Rp.UV: Long Term UV-20 Stabilizer: Yes |
| Applications | ▪ Consumer Articles | ▪ RV tanks |
| Form(s) | ▪ HD 4850R.UV: Pellets | ▪ HD 4850Rp.UV: Powder |
| Revision Date | ▪ 09/01/2014 | |

| Resin Properties | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Density | 0.948 | g/cm³ | 0.948 | g/cm³ | ASTM D1505 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 5.0 | g/10 min | 5.0 | g/10 min | ASTM D1238 (mod) |
| Peak Melting Temperature | 266 | °F | 130 | °C | ExxonMobil Method |

| Thermal | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Deflection Temperature Under Load (DTUL) at 66psi - Unannealed | 153 | °F | 67 | °C | ASTM D648 |
| Deflection Temperature Under Load (DTUL) at 264psi - Unannealed | 104 | °F | 40 | °C | ASTM D648 |

| Molded Properties | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Tensile Strength at Yield | | | | | ASTM D638 |
| 2.0 in/min (50 mm/min) | 3200 | psi | 22 | MPa | |
| Elongation at Yield (2.0 in/min (50 mm/min)) | 10 | % | 10 | % | ASTM D638 |
| Flexural Modulus - 1% Secant | 150000 | psi | 1000 | MPa | ASTM D790B |
| Environmental Stress-Crack Resistance | | | | | ASTM D1693A |
| 10% Igepal, F50 | 20 | hr | 20 | hr | |
| 100% Igepal, F50 | 20 | hr | 20 | hr | |

| Impact | Typical Value (English) | | Typical Value (SI) | | Test Based On |
|---|---|---|---|---|---|
| Impact Strength | | | | | ARM |
| -40°F (-40°C), 0.125 in (3.18 mm) | 55 | ft·lb | 75 | J | |
| -40°F (-40°C), 0.250 in (6.35 mm) | 140 | ft·lb | 190 | 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.

[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.

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



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