

ExxonMobil™ HD 4413 Series

(Legacy name: ExxonMobil™ HDPE HD 8512 Series)

High Density Polyethylene

Product Description

ExxonMobil™ HD 4413 is a high density hexene copolymer designed to offer outstanding stiffness and toughness. This resin is ideally suited for applications that require the optimum balance of low temperature toughness, creep resistance, stiffness, ESCR and tear properties.

General

| | |
|---------------------------|--|
| Availability ¹ | <ul style="list-style-type: none"> Latin America North America |
| Additive | <ul style="list-style-type: none"> HD 4413p.UV: Long Term UV-20 Stabilizer: Yes HD 4413.UV: Long Term UV-20 Stabilizer: Yes |
| Applications | <ul style="list-style-type: none"> Chemical Storage Tanks Industrial Products Intermediate Bulk Containers Water Tanks Septic Tanks |
| Form(s) | <ul style="list-style-type: none"> HD 4413.UV: Pellets HD 4413p.UV: Powder |
| Revision Date | <ul style="list-style-type: none"> 04/30/2020 |

| Resin Properties | Typical Value (English) | Typical Value (SI) | Test Based On |
|----------------------------|-------------------------|-------------------------|-------------------|
| Density | 0.944 g/cm ³ | 0.944 g/cm ³ | ASTM D1505 |
| Melt Index (190°C/2.16 kg) | 1.3 g/10 min | 1.3 g/10 min | ASTM D1238 |
| Peak Melting Temperature | 264 °F | 129 °C | ExxonMobil Method |

| Thermal | Typical Value (English) | Typical Value (SI) | Test Based On |
|---|-------------------------|--------------------|---------------|
| Deflection Temperature Under Load (DTUL) at 66psi - Unannealed | 142 °F | 61 °C | ASTM D648 |
| Deflection Temperature Under Load (DTUL) at 264psi - Unannealed | 102 °F | 39 °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 | 130000 psi | 870 MPa | ASTM D790B |
| Environmental Stress-Crack Resistance | | | ASTM D1693A |
| 10% Igepal, F50 | 50 hr | 50 hr | |
| 100% Igepal, F50 | 200 hr | 200 hr | |

| Impact | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------------|-------------------------|--------------------|---------------|
| Impact Strength | | | ARM |
| -40°F (-40°C), 0.125 in (3.18 mm) | 52 ft·lb | 71 J | |
| -40°F (-40°C), 0.250 in (6.35 mm) | 175 ft·lb | 237 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

All physical properties were measured on 3 mm rotomolded samples unless a different value is shown. ESCR was measured on compression molded plaques.

Tensile Strength at Yield and Elongation at Yield tested using ASTM D638 Type IV, 2 in/min. Flexural Modulus was measured at 0.5 in/min.

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.

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

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