ExxonMobil Signature Polymers

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]	▪ Latin America	▪ North America
Additive	▪ HD 4413p.UV: Long Term UV-20 Stabilizer: Yes	▪ HD 4413.UV: Long Term UV-20 Stabilizer: Yes
Applications	▪ Chemical Storage Tanks ▪ Industrial Products	▪ Intermediate Bulk Containers ▪ Septic Tanks ▪ Water Tanks
Form(s)	▪ HD 4413.UV: Pellets	▪ HD 4413p.UV: Powder
Revision Date	▪ 04/30/2020	

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.944	g/cm³	0.944	g/cm³	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.

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

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