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 [1]	• Latin America	• North America	• South America
Additive	• HDP8660.29: Long Term UV-15 Stabilizer: Yes	• HD 8660.29: Long Term UV-15 Stabilizer: Yes	
Applications	• Industrial Products	• Intermediate Bulk Containers	• Large Agricultural Tanks
Revision Date	• July 2011		

Resin Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Density	0.942	g/cm³	0.942	g/cm³	ASTM D4883
Melt Index (190°C/2.16 kg)	2.0	g/10 min	2.0	g/10 min	ASTM D1238

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	106	°F	41	°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					ASTM D638
2.0 in/min (51 mm/min)	2900	psi	20	MPa	
Elongation at Yield	20	%	20	%	ASTM D638
Flexural Modulus - 1% Secant	130000	psi	890	MPa	ASTM D790B
Environmental Stress-Crack Resistance					ASTM D1693A
10% Igepal, F50	50	hr	50	hr	
100% Igepal, F50	550	hr	550	hr	

Impact	Typical Value	(English)	Typical Value	(SI)	Test Based On
Impact Strength					ARM
-40°F (-40°C), 0.125 in (3.18 mm)	80	ft·lb	108	J	
0.250 in (6.35 mm)	180	ft·lb	244	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.