

# Marlex® HXM 50100

High Density (HMW) Polyethylene  
Chevron Phillips Chemical Company LLC

Message:

Marlex® HXM 50100 is a High Density (HMW) Polyethylene material. It is available in Europe, Latin America, or North America for blow molding, extrusion, or thermoforming.

Important attributes of Marlex® HXM 50100 are:

- Flame Rated
- Food Contact Acceptable
- Hexene Comonomer
- High ESCR (Stress Crack Resistant)
- High Molecular Weight

Typical applications include:

- Automotive
- Containers
- Tanks
- Agricultural
- Bags/Liners

General Information	
UL YellowCard	E349283-100986351
Features	Durable
	Food Contact Acceptable
	Good Melt Strength
	Hexene Comonomer
	High ESCR (Stress Crack Resist.)
	Low Temperature Impact Resistance
	Medium Rigidity
Uses	Ultra High Molecular Weight
	Agricultural Applications
	Agricultural Tanks
	Automotive Applications
	Blown Containers
	Containers
	Fuel Tanks
	Liners
	Outdoor Furnishings
	Pallets
	Shipping Containers
Agency Ratings	ASTM D 4976-PE235
	FDA 21 CFR 177.1520(c) 3.2a
	NSF 61

UL File Number	E54700
Forms	Pellets
Processing Method	Blow Molding Extrusion Thermoforming

Physical	Nominal Value	Unit	Test Method
Density	0.948	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	10	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (100% Igepal, Compression Molded, F50)	> 600	hr	ASTM D1693B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	68		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (Yield, Compression Molded)	25.0	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break, Compression Molded)	700	%	ASTM D638
Flexural Modulus - Tangent <sup>3</sup> (Compression Molded)	1200	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength <sup>4</sup> (Compression Molded)	190	kJ/m <sup>2</sup>	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, Compression Molded)	78.0	°C	ASTM D648
Brittleness Temperature	< -75.0	°C	ASTM D746A
Vicat Softening Temperature	126	°C	ASTM D1525 <sup>5</sup>
Flammability	Nominal Value		Test Method
Flame Rating	HB		UL 94

NOTE	
1.	Type IV, 51 mm/min
2.	Type IV, 51 mm/min
3.	13 mm/min
4.	Type S
5.	Rate A (50°C/h), Loading 1 (10 N)

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