# Marlex® HXM 50100-01

## High Density (HMW) Polyethylene

## Chevron Phillips Chemical Company LLC

### Message:

Marlex ® HXM 50100-01 is a High Density (HMW) Polyethylene material. It is available in Latin America or North America for blow molding, extrusion, or thermoforming. Important attributes of Marlex ® HXM 50100-01 are: Eco-Friendly/Green Food Contact Acceptable Hexene Comonmer High ESCR (Stress Crack Resistant) High Molecular Weight Typical applications include: Tanks Automotive Bags/Liners Containers Engineering/Industrial Parts

General Information				
Features	Durable			
	Food Contact Acceptable			
	Good Melt Strength			
	Hexene Comonomer			
	High ESCR (Stress Crack Resist.)			
	Low Temperature Impact Resistance			
	Medium Rigidity			
	Recyclable Material			
	Ultra High Molecular Weight			
Uses	Agricultural Tanks			
	Automotive Applications			
	Fuel Tanks			
	Liners			
	Pallets			
	Shipping Containers			
Agency Ratings	ASTM D 4976-PE235			
	FDA 21 CFR 177.1520(c) 3.2a			
Forms	Pellets			
Processing Method	Blow Molding			
	Extrusion			
	Thermoforming			

Physical	Nominal Value	Unit	Test Method
Density	0.948	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	12	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)	66		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)	750	%	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)	170	kJ/m²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, Compression Molded)	69.0	°C	ASTM D648
Brittleness Temperature	< -75.0	°C	ASTM D746A
Vicat Softening Temperature	124	°C	ASTM D1525 <sup>5</sup>
NOTE			
1.	Type IV, 51 mm/min		
2.	Type IV, 51 mm/min		
3.	13 mm/min		
4.	Туре S		
5.	Rate A (50°C/h), Loading 1 (10 N)		

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