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**POLYETHYLENE  
DATA SHEET**

# Marlex<sup>®</sup> HXM 50100

*Extra High Molecular Weight Hexene Copolymer*

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## CUSTOMER BENEFITS

*An excellent balance of stress cracking resistance, stiffness and melt strength make this resin an ideal candidate for large blow-molded items and thermoformed parts.*

*This resin has...  
...and produces molded parts with...*

- Good melt strength
- Excellent stress cracking resistance
- Good rigidity
- Excellent impact strength even at low temperatures

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## SUGGESTED APPLICATIONS

*Blow-molded items such as...*

- 55-gallon shipping containers
- Gasoline tanks
- Agricultural chemical tanks

*and extruded items such as...*

- Pallets
- Cattle feeders
- Large formed parts
- Boats

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## PROCESSING RECOMMENDATIONS

*Maintain these conditions for optimum part quality...*

*Blow Molding Stock Temperature*

- 370-450°F (188-232°C)

*Extrusion Melt Temperature*

- 450-515°F (232-268°C)

*Thermoforming Surface Temperature*

- 310-360°F (154-182°C)

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## SPECIFICATION DATA

*Meets these important requirements...*

- ASTM D1248 - Type III, Class A, Category 5
- ASTM D4976-89 - PE 235
- FDA regulation 177.1520 - suitable for food packaging application



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**Nominal Physical Properties of Marlex<sup>®</sup> HXM 50100**

Property*	Test Method	English		SI	
		Unit	Value	Unit	Value
Density	D1505	lbs/ft <sup>3</sup>	59	g/cc	0.949
HLMI, Condition 190/21.60	D1238	g/10 min	10	g/10 min	10
ESCR					
Condition A (100% Igepal), F <sub>50</sub>	D1693	h	>600	h	>600
Condition B (100% Igepal), F <sub>50</sub>		h	>600	h	>600
Tensile Yield Strength 2" (50 mm) per min.	D638 Type IV	psi	3600	MPa	25
Ultimate Elongation 2 in (50 mm) per min.	D638 Type IV	%	>600	%	>600
Brittleness Temperature	D746	°F	<-131	°C	<-91
Flexural Modulus	D790	psi	170,000	MPa	1172
<b>Bottles</b>					
Bottle ESCR, 140°F (60°C), F <sub>50</sub> **		h	>700	h	>700
<b>Thermoforming</b>					
Sheet Sag***		in	3-5	cm	8-13

\*Physical properties reported herein were determined on compression molded specimens prepared in accordance with Procedure C of ASTM D1928.

\*\*Test Conditions: 10 ounce, 23g bottle, 10% fill Orvus K Detergent.

\*\*\*2 ft x 4ft x 125 mil (0.61m x 1.22m x 3.2mm) thick blank heated to forming temperature.

THE NOMINAL PROPERTIES REPORTED HEREIN ARE TYPICAL OF THE PRODUCT BUT DO NOT REFLECT NORMAL TESTING VARIANCE AND THEREFORE SHOULD NOT BE USED FOR SPECIFICATION PURPOSES.

September, 1996

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