



**Formosa Plastics®**

Formolene® HDPE

## Formolene® HL5010

### Extra High Molecular Weight Hexene Copolymer

Formolene® HL5010 has good melt strength, excellent stress crack resistance, good rigidity, and excellent impact strength even at low temperatures. These properties make Formolene® HL5010 an excellent resin for large part blow molding applications.

Formolene® HL5010 meets the requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520 for food packaging, covering safe use of polyolefin articles intended for direct food contact.

#### Suggested Applications:

*Blow Molded...*

55-Gallon Shipping Containers

Gasoline Tanks

Agricultural Chemical Tanks

*Extruded...*

Pallets

Large Formed Parts

Corrugated Pipes (Certified to AASHTO M294)

Conduit Pipes (Meets ASTM F2160)

#### Nominal Physical Properties:

PROPERTY*	ASTM TEST METHOD	ENGLISH		SI	
		Unit	Value	Unit	Value
Density	D1505	g/cc	0.949	g/cc	0.949
HLMI, Condition F, 190°C/21.60 kg	D1238	g/10 min.	10.0	g/10 min.	10.0
Environmental Stress Crack Resistance (ESCR)					
Condition B, (100% Igepal), F <sub>50</sub>	D1693	h	>600	h	>600
Tensile Yield Strength,	D638				
2" (50 mm) per min.	Type IV	psi.	3600	MPa	25
Ultimate Elongation	D638				
2" (50 mm) per min.	Type IV	%	>600	%	>600
Brittleness Temperature	D746	°F	<-131 F	°C	<-91
Flexural Modulus	D790	psi.	170,000	MPa	1172

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

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.

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**Any inquiries regarding this data sheet should be addressed to: 9 Peach Tree Hill Road • Livingston, NJ 07039 • Phone: (888) FPCUSA3 • Fax: (973) 422-7772**

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## 50100

Polyethylene Product

### Product Description

*50100 is a polyethylene product suitable for blow molding. This material is polymerized with a chromium catalyst and it is designed for large blow molded parts that require melt strength, rigidity, ESCR. It is used for Shipping containers, Jerricans, Agricultural chemical tanks.*

### Product Characteristic

Test Method Used	ASTM	
Features	Melt strength	Rigidity
Typical Customer Applications	Jerrican	Containers

### Typical Properties

Physical	Test Method	Unit	Value
Melt Flow Rate (21.6 kg @190°C)	ASTM D1238	g/10min	9.75
Density	ASTM D1505	g/cm <sup>3</sup>	0.948
Mechanical	Test Method	Unit	Value
Tensile strength @ Yield	ASTM D638	MPa	25
Tensile Elongation @ 23°C	ASTM D638	%	600
Flexural Modulus(13mm/min)	ASTM D790	MPa	1200
ESCR (Condition B, 100% Igepal, F50)	ASTM D1693	hr	1000
Brittleness Temperature	ASTM D746	°C	<-75
Shore D	ASTM D2240	-	68
Thermal	Test Method	Unit	Value
Vicat	ASTM D1525	°C	126

**Notes:** Results may vary depending on environmental conditions and /or devices.

## Processing Recommendation

The actual conditions depends on the type of equipment used.

## Blow Molding

**50100** is easy to process with standard Blow molding machines. Following molding parameters should be used as guidelines:

Blow Molding Temperature	190 – 230 °C
Extrusion Melt Temperature	190 – 230 °C

## Storage

This material should be stored in dry conditions, protected from sunlight and at temperatures below 50 °C.

## Contact

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