

# Marlex<sup>®</sup> HXM 50100P Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

**This extra high molecular weight, ethylene-hexene copolymer is tailored for large blow moulded and thermoformed parts that require:**

- Good melt strength
- Good rigidity
- Excellent ESCR
- Excellent low temperature impact strength
- Durability

**Typical blow moulded applications for HXM 50100P include:**

- Shipping containers
- Jerry cans
- Fuel containers
- Agricultural chemical tanks

**Typical thermoformed applications for HXM 50100P include:**

- Pallets
- Automotive dunnage
- Truck bedliners
- Playground equipment

**This resin meets these specifications:**

- ASTM D4976 – PE 235
- FDA 21 CFR 177.1520(c) 3.2a, use conditions B through H per Table 2 of 21 CFR 176.170(c)

**For a safety data sheet (SDS), visit our site at**

[www.saudipolymers.com](http://www.saudipolymers.com)

Nominal Resin Properties <sup>(1)</sup>	Value (SI Units)	Method
<b>Density</b>	0.948 g/cm <sup>3</sup>	ASTM D1505
<b>Flow Rate</b> (HLM1, 190 °C/21.6 kg)	10.0 g/10 min	ASTM D1238
<b>Tensile Strength at Yield</b> , 50.8 mm/min, Type IV bar	25 MPa	ASTM D638
<b>Elongation at Break</b> , 50.8 mm/min, Type IV bar	700 %	ASTM D638
<b>Flexural Modulus</b> , Tangent, 16:1 span:depth, 12.7 mm/min	1,200 MPa	ASTM D790
<b>ESCR</b> , Condition B (100 % Igepal), F <sub>50</sub>	> 1,000 h	ASTM D1693
<b>Durometer Hardness</b> , Type D (Shore D)	68	ASTM D2240
<b>Vicat Softening Temperature</b> , Loading 1, Rate A	126 °C	ASTM D1525
<b>Heat Deflection Temperature</b> , 66 psi, Method A	78 °C	ASTM D648
<b>Brittleness Temperature</b> , Type A, Type I specimen	< -75 °C	ASTM D746
<b>Tensile Impact</b> , Type S bar	190 kJ/m <sup>2</sup>	ASTM D1822

1. 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. Values are rounded. The physical properties were determined on compression moulded specimens that were prepared in accordance with Procedure C of ASTM D4703, Annex A1.

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