

Marlex[®] HMN 6060UV Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

This high density polyethylene is an ethylene-hexene copolymer tailored for injection molding applications that require:

- Moderate flow
- Good impact strength
- Excellent stiffness
- Durability and recyclability for sustainability
- Strong UV resistance

This resin meets these specifications:

- ASTM D4976 – PE 233
- FDA 21 CFR 177.1520(c) 3.2a, use conditions B through H per 21 CFR 176.170(c)

Typical injection molding applications for HMN 6060UV include:

- Crates
- Tote boxes
- Structural foam (with proper foaming agent)

Nominal Physical Properties ⁽¹⁾	English	SI	Method
Density	----	0.962 g/cm ³	ASTM D1505
Flow Rate (MI, 190 °C/2.16 kg)	----	6.5 g/10 min	ASTM D1238
Flexural Modulus, Tangent, 16:1 span:depth, 0.5 in/min	225,000 psi	1,570 MPa	ASTM D790
Flexural Modulus, 1 % Secant, 16:1 span:depth, 0.5 in/min	210,000 psi	1,470 MPa	ASTM D790
Tensile Strength at Yield, 2 in/min, Type IV bar	4,400 psi	30 MPa	ASTM D638
Tensile Elongation at Break, 2 in/min, Type IV bar	900 %	900 %	ASTM D638
ESCR, Condition B (100 % Igepal), F ₅₀	15 h	15 h	ASTM D1693
Durometer Hardness, Type D (Shore D)	63	63	ASTM D2240
Notched Izod Impact, 74 °F Test Temperature	0.6 ft•lbf/in	35 J/m	ASTM D256
Vicat Softening Temperature, Loading 1, Rate A	261 °F	127 °C	ASTM D1525
Heat Deflection Temperature, 66 psi, Method A	188 °F	87 °C	ASTM D648
Heat Deflection Temperature, 264 psi, Method A	122 °F	50 °C	ASTM D648
Brittleness Temperature, Type A, Type I specimen	< -103 °F	< -75 °C	ASTM D746

- (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 molded specimens that were prepared in accordance with Procedure C of ASTM D4703, Annex A1.

Revision Date: September, 2017

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