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PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® 9010 Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

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

- Good flow performance
- High impact strength
- Excellent stiffness

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 molded applications for 9010 include items such as:

- Caps and Closures
- Lids
- Containers and Carts

Nominal Resin Properties ⁽¹⁾	English	SI	Method
Density	----	0.945 g/cm ³	ASTM D1505
Flow Rate (MI, 190 °C/2.16 kg)	----	10 g/10 min	ASTM D1238
Nominal Physical Properties ⁽¹⁾	English	SI	Method
Tensile Strength at Yield, 2 in/min, Type IV bar	3,100 psi	21 MPa	ASTM D638
Elongation at Break, 2 in/min, Type IV bar	800 %	800 %	ASTM D638
Flexural Modulus, Tangent, 16:1 span:depth, 0.5 in/min	154,000 psi	1,060 MPa	ASTM D790
Flexural Modulus, 1 % Secant, 16:1 span:depth, 0.5 in/min	142,000 psi	980 MPa	ASTM D790
Durometer Hardness, Type D (Shore D)	61	61	ASTM D2240
Notched Izod Impact, 74 °F Test Temperature	1.0 ft•lbf/in	54 J/m	ASTM D256
Vicat Softening Temperature, Loading 1, Rate A	247 °F	120 °C	ASTM D1525
Heat Deflection Temperature, 66 psi, Method A	158 °F	70 °C	ASTM D648
Heat Deflection Temperature, 264 psi, Method A	114 °F	46 °C	ASTM D648
ESCR, Condition B (100 % Igepal), F ₅₀	43 h	43 h	ASTM D1693
ESCR, Condition B (10 % Igepal), F ₅₀	20 h	20 h	ASTM D1693
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.

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Another quality product from



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