

Marlex® 1009 Polyethylene

LOW DENSITY POLYETHYLENE (LDPE)

This autoclave LDPE homopolymer is tailored for applications that require:

- Excellent flexibility
- Excellent flow
- Good warpage resistance
- Durability

This resin meets these specifications:

- ASTM D4976 - PE 112
- FDA 21 CFR 177.1520(c) 2.2, use conditions B through H per 21 CFR 176.170(c)

Typical injection molded applications for 1009 include:

- Large housewares
- Tamper evident, snap-on caps
- Feminine hygiene applications

Nominal Physical Properties ⁽¹⁾	English	SI	Method
Density	---	0.917 g/cm ³	ASTM D1505
Flow Rate (MI, 190 °C/2.16 kg)	---	16.0 g/10 min	ASTM D1238
Tensile Strength at Yield , 2 in/min, Type IV bar	1,300 psi	9 MPa	ASTM D638
Elongation at Break , 2 in/min, Type IV bar	500 %	500 %	ASTM D638
Flexural Modulus , Tangent - 16:1 span:depth, 0.5 in/min	30,000 psi	200 MPa	ASTM D790
Durometer Hardness , Type D (Shore D)	46	46	ASTM D2240
Vicat Softening Temperature , Loading 1, Rate A	185 °F	85 °C	ASTM D1525
Brittleness Temperature , Type A, Type I specimen	-65 °F	-54 °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.

