Marlex Polyethylene

PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® C513UV Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

This extra high molecular weight, ethylene-hexene copolymer is tailored for intermediate bulk container applications that require:

- Outstanding impact resistance
- Outstanding ESCR
- Excellent processability
- UV stabilization
- Durability

Typical blow molded applications for C513UV include :

- Intermediate bulk containers
- Agricultural containers

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). When contacting fatty foods of Types III, IV-A, V, VII-A, and IX per Table 1 of 21 CFR 176.170(c), the finished articles are to have a volume of at least 18.9 liters (5 gallons).

NOMINAL PHYSICAL PROPERTIES(1)	English	SI	Method
Density	---	0.945 g/cm^3	ASTM D1505
Flow Rate (HLMI, 190 °C/21.6 kg)	---	6.2 g/10 min	ASTM D1238
Tensile Strength at Yield, 2 in/min, Type IV bar	3,500 psi	24 MPa	ASTM D638
Elongation at Break, 2 in/min, Type IV bar	700 %	700 %	ASTM D638
Flexural Modulus, Tangent - 16:1 span:depth, 0.5 in/min	155,000 psi	1070 MPa	ASTM D790
ESCR, Condition A (100% Igepal), F_{50}	> 2000 h	> 2000 h	ASTM D1693
ESCR, Condition B (100% Igepal), F_{50}	> 2000 h	> 2000 h	ASTM D1693
Durometer Hardness, Type D (Shore D)	61	61	ASTM D2240
Vicat Softening Temperature, Loading 1, Rate A	254 °F	123 °C	ASTM D1525
Heat Deflection Temperature, 66 psi, Method A	150 °F	66 °C	ASTM D648
Brittleness Temperature, Type A, Type I specimen	< -103 °F	< -75 °C	ASTM D746
Tensile Impact, Type S bar	275 ft-lb/in^2	580 kJ/m^2	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 molded specimens that were prepared in accordance with Procedure C of ASTM D4703, Annex A1.

Chevron Phillips Chemical