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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.

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Chevron Phillips CHEMICAL

Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Chevron Phillips Chemical Company LP does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.