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PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® K307 Polyethylene

MEDIUM DENSITY POLYETHYLENE (MDPE)

This medium density, high molecular weight ethylene-hexene copolymer is tailored for geomembrane applications that require:

- Outstanding ESCR
- Broad fusion range
- Excellent melt strength
- Good processability

This resin meets these specifications:

- ASTM D4976 - PE 225
- GRI-GM13 except carbon black requirements

Typical geomembrane applications for K307 include:

- Landfill liners
- Gasoline and chemical tank containment liners
- Tunnel moisture barriers
- Mine tailing collection projects

NOMINAL PHYSICAL PROPERTIES(1)	English	SI	Method
Density	---	0.937 g/cm^3	ASTM D1505
Flow Rate (HLMI, 190 °C/21.6 kg)	---	21.0 g/10 min	ASTM D1238
Tensile Strength at Yield, 2 in/min, Type IV bar	2,900 psi	20 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	120,000 psi	830 MPa	ASTM D790
ESCR, Condition B (10 % Igepal), F_{50}	> 1,500 h	> 1,500 h	ASTM D1693
ESCR, Condition C (100 % Igepal), F_{50}	> 1,500 h	> 1,500 h	ASTM D1693
SP-NCTL	> 900 h	> 900 h	ASTM D5397 (Appendix)
Durometer Hardness, Type D (Shore D)	57	57	ASTM D2240
Vicat Softening Temperature, Loading 1, Rate A	221 °F	105 °C	ASTM D1525
Heat Deflection Temperature, 66 psi, Method A	137 °F	58 °C	ASTM D648
Brittleness Temperature, Type A, Type I specimen	< -103 °F	< -75 °C	ASTM D746
Tensile Impact, Type S bar	190 ft•lb/in^2	400 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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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.