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Marlex® Polyethylene

PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® 7104 Polyethylene

LINEAR LOW DENSITY POLYETHYLENE (LLDPE)

This linear low density, high molecular weight ethylene-hexene copolymer is tailored for sheet and geomembrane applications that require:

- Outstanding ESCR
- Good melt strength
- Excellent flexibility
- Good processability
- Good gloss
- High coefficient of friction values

Typical geomembrane applications for 7104 include:

- Landfill covers
- Flat and round-die products

Typical sheet applications for 7104 include:

- Coextruded cap layers on HDPE
- Blends with HDPE

This resin meets these specifications:

- ASTM D4976 - PE 215
- FDA 21 CFR 177.1520(c) 3.2a, use conditions B through H per 21 CFR 176.170(c)

NOMINAL PHYSICAL PROPERTIES(1)	English	SI	Method
Density	---	0.919 g/cm^3	ASTM D1505
Flow Rate (MI, 190 °C/2.16 kg)	---	0.35 g/10 min	ASTM D1238
Tensile Strength at Yield, 2 in/min, Type IV bar	1,600 psi	11 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	60,000 psi	410 MPa	ASTM D790
ESCR, Condition B (10 % Igepal), F_{50}	> 2,000 h	> 2,000 h	ASTM D1693
ESCR, Condition C (100 % Igepal), F_{50}	> 2,000 h	> 2,000 h	ASTM D1693
SP-NCTL	> 1,000 h	>1,000 h	ASTM D5397 (Appendix)
Durometer Hardness, Type D (Shore D)	51	51	ASTM D2240
Vicat Softening Temperature, Loading 1, Rate A	212 °F	100 °C	ASTM D1525
Heat Deflection Temperature, 66 psi, Method A	123 °F	51 °C	ASTM D648
Brittleness Temperature, Type A, Type I specimen	< -103 °F	< -75 °C	ASTM D746
Oxidative Induction Time, 200 °C	> 100 min	> 100 min	ASTM D3895

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.