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Marlex® Polyethylene

PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® TRB-223 Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

This bimodal high molecular weight, high density polyethylene (HMW-HDPE) ethylene-hexene copolymer is tailored for conduit pipe applications that require:

- Outstanding processability
- Superior melt strength
- Excellent slow crack growth resistance
- Good balance between pipe stiffness and toughness

Typical conduit pipe applications for TRB-223 include:

- Telecommunications
- Data transmission
- Electrical

This resin meets or exceeds these standards/specifications:

- ASTM F2160
- ASTM D3350, Cell Class PE435580A
- UL651A

Nominal Resin Properties[1]	English	SI	Method
Density	---	0.951 g/cm^3	ASTM D1505
Flow Rate (MI, 190 °C/2.16 kg)	---	0.35 g/10 min	ASTM D1238
Flexural Modulus, 2 % Secant, 16:1 span:depth, 0.5 in/min	150,000 psi	1,030 MPa	ASTM D790
Tensile Strength at Yield, 2 in/min, Type IV bar	3,800 psi	26 MPa	ASTM D638
Tensile Elongation at Break, 2 in/min, Type IV bar	600 %	600 %	ASTM D638
ESCR, Condition B, (10 % Igepal), F_{10}	> 1,000 h	> 1,000 h	ASTM D1693
Brittleness Temperature, Type A clamp, Type I specimen	< -103 °F	< -75 °C	ASTM D746
Heat Deflection Temperature (66 psi)	> 158 °F	> 70 °C	ASTM D648
Thermal Stability	> 428 °F	> 220 °C	ASTM D3350

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.