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Marlex® Polyethylene

PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® HHM TR-418Q Polyethylene

MEDIUM DENSITY POLYETHYLENE (MDPE)

This high performance medium density polyethylene is an ethylene-hexene copolymer that is tailored for demanding pressure pipe applications that require:

- Good long-term hoop strength
- UV stabilizer for good outdoor storage life
- Outstanding resistance to slow crack growth

Typical applications for HHM TR-418Q include:

- Energy piping systems
- Oil field pipe
- Industrial pipe

When blended with an approved yellow concentrate, this material meets or exceeds these standards/specifications:

- ASTM D4976 - PE 225
- NSF 3rd party D2513 certified
- ASTM D3350, Cell Class PE234373E and PE234375E
- PPI designations PE 2708 and PE 80
- CSA approved for natural gas

Nominal Physical Properties(1)	English	SI	Method
Density	---	0.939 g/cm^3	ASTM D1505
Flow Rate (HLMI, 190 °C/21.6 kg)	---	20.0 g/10 min	ASTM D1238
Flow Rate (MI, 190 °C/2.16 kg)	---	0.20 g/10 min	ASTM D1238
Flexural Modulus, 2 % Secant - 16:1 span:depth, 0.5 in/min	90,000 psi	620 MPa	ASTM D790
Tensile Strength at Yield, 2 in/min, Type IV bar	2,800 psi	19 MPa	ASTM D638
Tensile Elongation at Break, 2 in/min, Type IV bar	800 %	800 %	ASTM D638
PENT Slow Crack Growth	> 2,000 h	> 2,000 h	ASTM F1473
Brittleness Temperature, Type A, Type I specimen	< -103 °F	< -75 °C	ASTM D746
Nominal Pipe Properties(2) (3)	**English**	**SI**	**Method**
Hydrostatic Design Basis, 73 °F (23 °C)	1,250 psi	8.6 MPa	ASTM D2837
Hydrostatic Design Basis, 140 °F (60 °C)	800 psi	5.5 MPa	ASTM D2837
Minimum Required Strength	1,160 psi	8.0 MPa	ISO 9080
Rapid Crack Propagation, Full scale test, 0 °C (32 °F)	123 psi	8.5 bar	ISO 13478

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 or ASTM F1473.
2. The nominal pipe properties were determined on pipe extruded from a pellet blend of HHM TR-418Q and an approved yellow concentrate.
3. The Rapid Crack Propagation (RCP) properties were determined on 6” SDR 11 pipes and 8” SDR 11 pipes.

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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.