For more information and technical assistance contact:

Chevron Phillips Chemical
P.O. Box 4910
The Woodlands, TX 77387-4910
800.231.1212

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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