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PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® H516

HIGH DENSITY POLYETHYLENE COMPOUND

This high performance PE 100 HDPE compound is tailored for the demanding requirements of pressure pipe applications that require:

- Excellent long-term hoop strength
- Superb resistance to slow-crack growth
- Exceptional resistance to rapid-crack propagation
- Outstanding low-temperature toughness

Additional information:

- Meets ASTM D4976 - PE 235
- Yellow version also available

Typical pipe applications for H516 include:

- Gas distribution
- Potable water
- Industrial applications

This compound meets or exceeds:

- ASTM D3350, class 445574C and 445576C
- NSF Standards 14 and 61 for potable water
- PPI designations PE 4710 and PE 100

NOMINAL COMPOUND PROPERTIES ^{(1), (2)}	English	SI	Method
Density	---	0.961 g/cm ³	ASTM D1505
Flow Rate (HLMI, 190/21.6)	---	8.0 g/10 min	ASTM D1238
Tensile Strength at Yield, 2 in/min, Type IV bar	3,700 psi	25.5 MPa	ASTM D638
Elongation at Break, 2 in/min, Type IV bar	>700%	>700%	ASTM D638
Flexural Modulus, 2% Secant - 16:1 span:depth, 0.5 in/min	140,000 psi	965 MPa	ASTM D790
PENT Slow Crack Growth	>5,000 h	>5,000 h	ASTM F1473

NOMINAL PIPE PROPERTIES ^{(3), (4)}	English	SI	Method
Hydrostatic Design Basis, 73°F (23°C)	1,600 psi	11 MPa	ASTM D2837
Hydrostatic Design Basis, 140°F (60°C)	1,000 psi	6.9 MPa	ASTM D2837
Hydrostatic Strength, 12.4 MPa (1800 psi), 20°C (68°F)	>400 h	>400 h	ISO 1167
Hydrostatic Strength, 5.5 MPa (800 psi), 80°C (176°F)	>8,000 h	>8,000 h	ISO 1167
Hydrostatic Strength, 5.0 MPa (725 psi), 80°C (176°F)	>10,000 h	>10,000 h	ISO 1167
Minimum Required Strength	1,450 psi	10 MPa	ISO 9080
Rapid Crack Propagation, Full scale test, 0°C (32°F)	>435 psi	>30 bar	ISO 13478
Rapid Crack Propagation, S4 critical pressure, -15°C (5°F)	>145 psi	>10 bar	ISO 13477
Notched Pipe Test, 9.2 Bar (133 psi), 80°C (176°F)	>500 h	>500 h	ISO 13479

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 and ASTM F1473.

2. The PENT value was determined on natural resin with a density value of 0.948 g/cm³.

3. Determined on pipe extruded from H516.

4. The Rapid Crack Propagation (RCP) properties were determined on 12" SDR 11 pipe for full scale and 8" SDR 11 pipe for S-4.

MSDS #CPC00258

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Another quality product from



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