PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® H525 Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

This high performance PE 4710/PE 80 HDPE, ethylene-hexene copolymer is tailored for demanding pressure pipe applications that require:

- Good long-term hoop strength
- Good resistance to slow crack growth
- Excellent resistance to slump

Typical applications for H525 include:

- Municipal, industrial and mining pipe
- Oil and gas-gathering pipe

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

- ASTM D4976 – PE 235
- ASTM D3350, Cell Class PE445574C
- ASTM D3350, Cell Class PE445575C
- NSF Standards 14 and 61 for potable water
- PPI designations PE 4710 and PE 80

Nominal Resin Properties(1)	English	SI	Method
Density	---	0.948 g/cm^3	ASTM D1505
Flow Rate (HLMI, 190 °C/21.6 kg)	---	9.0 g/10 min	ASTM D1238
Flexural Modulus, 2 % Secant – 16:1 span:depth, 0.5 in/min	120,000 psi	830 MPa	ASTM D790
Tensile Strength at Yield, 2 in/min, Type IV bar	> 3,500 psi	> 24 MPa	ASTM D638
Tensile Elongation at Break, 2 in/min, Type IV bar	> 700 %	> 700 %	ASTM D638
PENT Slow Crack Growth	> 500 h	> 500 h	ASTM F1473
Nominal Pipe Properties(2)	**English**	**SI**	**Method**
Hydrostatic Design Basis, 73 °F (23 °C)	1,600 psi	11.0 MPa	ASTM D2837
Hydrostatic Design Basis, 140 °F (60 °C)	1,000 psi	6.9 MPa	ASTM D2837
Minimum Required Strength	1,160 psi	8.0 MPa	ISO 9080

1. The nominal properties reported herein are typical of the product blended with an approved color concentrate except the density value which is representative of the natural resin. The nominal properties do not reflect normal testing variance and therefore should not be used for specification purposes. Values are rounded.
2. The nominal pipe properties were determined on pipe extruded from a pellet blend of H525 and an approved black concentrate