



ENDOT INDUSTRIES, INC.

PIPE AND TUBING • DUCT AND INNERDUCT

ENDOT PE-100/PE4710 GAS PIPE

Endot announces the immediate availability of PE-100/PE4710* gas pipe produced from the new, high performance Bi-Modal resin, DGDA 2490BK from Dow Chemical.

Endot PE-100/PE 4710 Gas Pipe is produced in black with three yellow stripes for easy identification as gas service pipe and tubing. Endot PE-100/PE 3408 Gas Pipe is available in CTS and IPS dimensions produced to ASTM D2513 and is available in sizes from 1/2" through 2".

The Dow resin DGDA 2490BK used to make Endot PE-100/PE 4710 Gas Pipe is a Bi-Modal, High Density Polyethylene (HDPE) and is the first ISO PE100 pipe material produced in North America to be listed with a 100-year rating at 20°C (68°F) by The Plastics Pipe Institute, Inc. (PPI). DOW DGDA-2490 BK100 HDPE resin also was given a 50-year rating at 40°C (104°F) and an 11-year rating at 60°C (140°F) by the PPI, making it the first PE100 resin to be listed at elevated temperatures

This new HDPE resin provides enhanced performance characteristics, such as:

- Superior Slow Crack Growth (SCG) resistance
- Excellent resistance to Rapid Crack Propagation (RCP)
- High temperature/pressure performance
- Increased toughness (especially at low temperatures)
- Increased tensile strength and modulus
- Enhanced fusion to MDPE and other HDPE pipe grades

Resin Properties

Cell Classification (with carbon black)	ASTM D3350	PE445576C
Melt Index (I ₂) @ 190°C/2.16 kg, g/10 min	ASTM D1238	0.08
Flow Rate (I ₂) @ 190°C/21.60 kg, g/10min	ASTM D1238	7.0
Density (natural resin), g/cc	ASTM D792	0.949
Density, g/cc	ASTM D792	0.959
Thermal Stability, °F (°C)	ASTM D3350	>428 (>220)

Mechanical Properties

Tensile Strength at Yield, psi (MPa)	ASTM D638	3600 (24.8)
Elongation at Break, %	ASTM D638	740
Flexural Modulus, psi (MPa)	ASTM D790, method 1, procedure B	150,000 (1034)
Notched Izod Impact @ 23°C, ft lbf/in. (J/m)	ASTM D256, method A	9.1 (488)
Brittleness Temperature, °F (°C)	ASTM D746, procedure A	<-103 (<-75)
Slow Crack Growth PENT, hours	ASTM F1473	>10000

Pipe Properties

Hydrostatic Strength @ 20°C /1798 psi (12.4 MPa), hr. ASTM 1598	>100
Hydrostatic Strength @ 80°C / 798 psi (5.5 MPa), hr. ASTM 1598	>1000
Resistance to Rapid Crack Propagation, Pc, psi (bar) SO 13477	>174 (>12)
Resistance to Rapid Crack Propagation, Tc, °F (°C) ISO 13477	<2 (<-17)

Fusion Qualification

Qualified to TR-33 Generic Procedure

* PE 4710 is also called PE 3408 under certain ASTM and AGA specifications

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