

Marlex® TRB-432

High Density Polyethylene
Chevron Phillips Chemical Company LLC

Message:

This high performance PE 4710/PE 100 rated bimodal HDPE, ethylene-hexene copolymer 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

Typical applications for TRB-432 include:

- Gas distribution pipe
- Potable water pipe
- Industrial pipe

When blended with an approved black concentrate, the material meets or exceeds:

- ASTM D3350, class PE445574C and PE445576C
- NSF Standards 14 and 61 for potable water
- PPI designations PE 4710 HDPE and PE 100 HDPE(4)

Additional information:

- Meets ASTM D4976 - PE 235
- NSF 3rd party D2513 certified
- NSF CSA B137.1 and B137.4 certified

General Information			
Features	Low Temperature Flexibility		
	Good cracking resistance		
	Good strength		
Uses	Industrial application		
	Piping system		
Agency Ratings	ASTM D 3350 PE445574C		
	ASTM D 3350 PE445576C		
	NSF 14		
	NSF 61		
	PPI PE-100		
	PPI PE-4710		
Processing Method	Pipeline extrusion molding		
Physical	Nominal Value	Unit	Test Method
Density	0.949	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Yield)	25.5	MPa	ASTM D638
Tensile Elongation ² (Break)	> 700	%	ASTM D638

Flexural Modulus - 2% Secant ³	965	MPa	ASTM D790
Notch Pipe Test - 4.6 MPa (80°C)	> 20.8	day	ISO 13479
Fundamentals of Hydrostatic Design			ASTM D2837
23°C	11.0	MPa	ASTM D2837
60°C	6.89	MPa	ASTM D2837
Minimum Required Strength	10.0	MPa	ISO 9080
PENT	> 2000	hr	ASTM F1473
Rapid Crack Propagation - S4 Critical Pressure (0°C) ⁴	> 1.20	MPa	ISO 13477
Additional Information	Nominal Value	Unit	Test Method

Nominal pipe properties were determined on pipe extruded from a pellet blend of TRB-432 and an approved black concentrate.

NOTE

1. Type 4, 51mm/min
2. Type 4, 51mm/min
3. 13 mm/min
4. 8" SDR 11 Pipe

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