

Chevron Phillips Marlex® TRB-432

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.

Physical Properties	Metric	English	Comments
Density	0.949 g/cc	0.0343 lb/in³	ASTM D1505

High Load Melt Index	8.0 g/10 min @Load 21.6 kg, Temperature 190 °C	8.0 g/10 min @Load 47.6 lb, Temperature 374 °F	ASTM D1238
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Mechanical Properties	Metric	English	Comments
PENT	>= 10000 hour	>= 10000 hour	ASTM F1473

Tensile Strength, Yield	25.5 MPa	3700 psi	2 in/min, Type IV bar; ASTM D638
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Elongation at Break	>= 700 %	>= 700 %	2 in/min, Type IV bar; ASTM D638
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2% Secant Modulus	0.965 GPa	140 ksi	16:1 span:depth, 0.5 in/min; ASTM D790
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Hydrostatic Design Basis	6.90 MPa @Temperature 60.0 °C	1000 psi @Temperature 140 °F	ASTM D2837
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	11.0 MPa @Temperature 23.0 °C	1600 psi @Temperature 73.4 °F	ASTM D2837
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Descriptive Properties			
Minimum Required Strength, Pipe	10 MPa		ISO 9080

Notched Pipe Test	> 500h		ISO 13479, 4.6 MPA, 80°C
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Rapid Crack Propagation Critical Pressure, Pipe	>12 bar		ISO 13477, 0°C
	>46 bar		ISO 13478, Full Scale, 0°C

Rapid Crack Propagation Critical Temperature, Pipe	-17°C		ISO 13477, 5 bar
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