



Caltex PE TRB432

GS Caltex - High Density Polyethylene

General Information

Product Description

TRB432 is a polyethylene product suitable for piping fabrication. This material is polymerized with a Ziegler-Natta catalyst and it is designed for demanding requirements of pressure pipe applications that require excellent long-term hoop strength, superb resistance to slow crack growth and exceptional resistance to rapid crack propagation. It is used for energy & water piping systems

Features:

- Excellent long-term hoop strength
- Great Crack Resistance
- Exceptional Resistance to rapid crack propagation

Typical Customer Applications:

- Energy Piping System
- Portable Water Pipe
- Industrial Pipe

General

Features	• Crack Resistant	• High ESCR (Stress Crack Resist.)
Uses	• Industrial Applications	• Piping
Processing Method	• Pipe Extrusion	• Potable Water Applications

Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.948 g/cm ³	0.948 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.30 g/10 min	0.30 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
100% Igepal, F50	> 5000 hr	> 5000 hr	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength (Yield)	3770 psi	26.0 MPa	ASTM D638
Tensile Elongation (Break)	> 700 %	> 700 %	ASTM D638
Flexural Modulus	160000 psi	1100 MPa	ASTM D790
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Peak Melting Temperature	266 °F	130 °C	ASTM D3418
Oxidation Induction Time (392°F (200°C))	> 100 min	> 100 min	ASTM D3895

Processing Information

Extrusion	Typical Value (English)	Typical Value (SI)
Cylinder Zone 1 Temp.	356 to 428 °F	180 to 220 °C
Cylinder Zone 2 Temp.	356 to 428 °F	180 to 220 °C
Cylinder Zone 3 Temp.	356 to 428 °F	180 to 220 °C

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Extrusion	Typical Value (English)	Typical Value (SI)
Cylinder Zone 4 Temp.	356 to 428 °F	180 to 220 °C
Cylinder Zone 5 Temp.	374 to 428 °F	190 to 220 °C
Melt Temperature	356 to 446 °F	180 to 230 °C
Die Temperature	374 to 428 °F	190 to 220 °C