



# Caltex PE 50100

## GS Caltex - High Density Polyethylene

### General Information

#### Product Description

50100 is a polyethylene product suitable for blow molding. This material is polymerized with a chromium catalyst and it is designed for large blow molded parts that require melt strength, rigidity, ESCR. It is used for Shipping containers, Jerricans, Agricultural chemical tanks

Features:

- Melt strength
- Rigidity

Typical Customer Applications:

- Jerrican
- Containers

#### General

Features	• Good ESCR (Stress Crack Resist.)	• Good Melt Strength	• Good Rigidity
Uses	• Agricultural Tanks	• Jerricans	• Shipping Containers
Processing Method	• Blow Molding		

### Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.948 g/cm <sup>3</sup>	0.948 g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	9.8 g/10 min	9.8 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
100% Igepal, F50	1000 hr	1000 hr	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength (Yield)	3630 psi	25.0 MPa	ASTM D638
Tensile Elongation (Break, 73°F (23°C))	600 %	600 %	ASTM D638
Flexural Modulus <sup>2</sup>	174000 psi	1200 MPa	ASTM D790
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	68	68	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Brittleness Temperature	< -103 °F	< -75.0 °C	ASTM D746
Vicat Softening Temperature	259 °F	126 °C	ASTM D1525

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	374 to 446 °F	190 to 230 °C
Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	374 to 446 °F	190 to 230 °C