

# Braskem PE GP 100OR

High Density Polyethylene

Braskem

Message:

The GP 100 OR is a High Density Polyethylene compounding with high molar mass, specially developed for the manufacturing of extruded pipes for gas pressurized line. This resin is produced with bimodal technology, it has excellent mechanical properties and very high resistance to internal pressure. This resin has MRS (Minimum Required Strength) of 10 MPa according to ISO 9080, and is classified as PE 100 according to ISO 12162. GP 100 OR is manufactured in orange color and it contains additives that protect it against the action of ultraviolet radiation.

Meets the requirements of NBR 14462:00.

Application:

Orange PE 100 pressure pipes for gas distribution; jacketing of underwater cables

General Information			
Additive	UV Stabilizer		
Features	Good UV Resistance		
	High ESCR (Stress Crack Resist.)		
	High Molecular Weight		
Uses	Natural Gas Distribution		
	Piping		
Agency Ratings	ISO 12162 PE 100		
	ISO 9080 PE 100		
Appearance	Orange		
Forms	Pellets		
Processing Method	Extrusion		
	Pipe Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.950	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.22	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (50°C, 2.00 mm, 100% Igepal, Compression Molded, F50)	> 1000	hr	ASTM D1693
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	64		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield, Compression Molded	24.0	MPa	
Break, Compression Molded	36.0	MPa	
Tensile Elongation			ASTM D638

Yield, Compression Molded	8.1	%	
Break, Compression Molded	770	%	
Flexural Modulus - 1% Secant (Compression Molded)	1240	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (Compression Molded)	350	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, Compression Molded)	72.0	°C	ASTM D648
Vicat Softening Temperature	126	°C	ASTM D1525 <sup>1</sup>
NOTE			
1.	Loading 1 (10 N)		

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