Braskem

Datasheet
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High Density Polyethylene GP100ORXP

Description:

GP100ORXP is a High Density Polyethylene compound specially developed for the manufacturing of extruded pipes for gas distribution. It is produced with bimodal technology and has high molar mass. It shows excellent mechanical properties and resistance to hydrostatic pressure and stress cracking. This resin has MRS (Minimum Required Strength) of 10 MPa, according to ISO 9080, and is classified as PE 100, according to ISO 12162. GP100ORXP is manufactured in orange color and contains additives to protect it against ultraviolet radiation action and photodegradation. Meets the requirements of NBR 14462-1:16 and ISO 4437-1:14.

Applications:

PE100 classification in orange color, Pipes for natural gas, Underwater cable cover, Pressurized pipes

Processes:

Pipes extrusion

Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/5kg)	ASTM D 1238	g/10 min	0.25
Density	ASTM D 792	g/cm³	0.948

Typical Properties - Plaque[1]:

Plaque Properties

Feature	Method	Units	Values
Tensile Strength at Yield (a)	ASTM D 638	MPa	24
Elongation at Yield (a)	ASTM D 638	%	10
Tensile Strength at Break (a)	ASTM D 638	MPa	38
Elongation at Break (a)	ASTM D 638	%	1510
Flexural Modulus - 2% Secant (b)	ASTM D 2240	-	1050
Hardness (c)	ASTM D 2240	-	64
Izod Impact Strength (b)	ASTM D 256	J/m	NB
Environmental Stress Cracking Resistance - notch 0,3 mm; 50°C; 10% Igepal CO630 (a)	ASTM D 1693	h/F50	>1000
Deflection Temperature under Load at 0.455 MPa (b)	ASTM D 648	ºC	69
Vicat Softening Temperature at 10 N (b)	ASTM D 1525	°C	125

[1] Test specimens from compression molded plaque according to ASTM D4703. Plaque Thickness: a) 2mm. b) 3mm c) 6mm. NB = No break.

Final Remarks

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