


Datasheet

May/2022

High Density Polyethylene GM5010T2B

Description:

GM5010T2B is a High Density Polyethylene compound specially developed for the manufacturing of extruded pipes for water distribution. It is produced with bimodal technology and has high molar mass. It shows high mechanical properties and has excellent resistance to hydrostatic pressure and to stress cracking. This resin has MRS (Minimum Required Strength) of 8 MPa, according to ISO 9080, and is classified as PE 80, according to ISO 12162. GM5010T2B is manufactured in blue color and contains additives to protect it against ultraviolet radiation action and photodegradation.

Meets the requirements of ISO 4427:19 only for pipes with less than 32 mm of wall thickness.
Meets the requirements of NBR 15561:16.

Applications:

PE80 classification in blue color, Pressurized pipes, Water branch lines, Distribution and adductor water systems

Processes:

Pipes extrusion

Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/5kg)	D 1238	g/10 min	0.45
Density	D 792	g/cm ³	0.947

Typical Properties - Plaque¹:

Plaque Properties

Feature	Method	Units	Values
Tensile Strength at Yield (a)	D 638	MPa	22
Elongation at Yield (a)	D 638	%	12
Tensile Strength at Break (a)	D 638	MPa	36
Elongation at Break (a)	D 638	%	910
Flexural Modulus - 1% Secant (b)	D 2240	-	1090
Shore D Hardness (c)	D 1693	h/F50	62
Izod Impact Strength (b)	D 256	J/m	260
Environmental Stress Cracking Resistance - notch 0,3 mm; 50°C; 100% Igepal CO630 (a)	ASTM D 1693	h/F50	> 1000
Deflection Temperature under Load at 0.455 MPa (b)	D 648	°C	69
Vicat Softening Temperature at 10 N (b)	D 1525	°C	122

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

Final Remarks:

- The information presented in this Data Sheet reflects typical values obtained in our laboratories, but should not be considered as absolute or as warranted values. Only the properties and values mentioned on the Certificate of Quality are considered as guarantee of the product.
- For regulatory information of the product, please refer to Regulatory Document or contact our Technical Assistance Area.
- For information about safety, handling, individual protection, first aids and waste disposal, please refer to MSDS.
- The mentioned values in this report can be changed at any moment without Braskem previous communication.