

High Density Polyethylene GP100BLXP

Description:

GP100BLXP 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 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. GP100BLXP is manufactured in blue color and contains additives to protect it against ultraviolet radiation action and photodegradation.

Meets the requirements of NBR 15561:16 and ISO 4427:07.

Application:

Blue PE 100 pressure pipes for water branch lines, distribution and adductor water systems.

Process:

Pipe Extrusion.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/5.0)	D 1238	g/10 min	0.25
Density	D 792	g/cm ³	0.949

Typical Properties:

Plaque Properties^a

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	24
Tensile Strength at Break	D 638	MPa	38
Flexural Modulus – 1% Secant	D 790	MPa	1030
Shore D Hardness	D 2240	-	65
Notched Izod Impact Strength	D 256	J/m	NB
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	> 1000
Environmental Stress Cracking Resistance ^c	D 1693	h/F50	> 1000
Vicat Softening Temperature at 10 N	D 1525	°C	126
Deflection Temperature under Load at 0.455 MPa	D 648	°C	67
Elongation at Yield	D 638	%	10
Elongation at Break	D 638	%	1400

(a) Test specimens prepared from compression molded sheet made according to ASTM D 4703.

(b) Compression molded 2 mm thickness, 0.3 mm notched-plaques; 10% Igepal; 50°C.

(c) Compression molded 2 mm thickness, 0.3 mm notched-plaques; 100% Igepal; 50°C.

Final Remarks:

1. This resin meets the requirements for olefin polymers as defined in 21 CFR, section 177.1520 issued by FDA – Food and Drug Administration in force on the date of publication of this specification. The additives present are covered in appropriate regulation by FDA
2. 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.
3. In some applications, Braskem has developed tailor-made resins to reach specific requirements.
4. In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 25087-34-7.
6. The mentioned values in this report can be changed at any moment without Braskem previous communication.
7. Braskem does not recommend this grade for packages, parts or any kind of product manufacture that will be used for storage or contact with solution that will have internal contact with human body.
8. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.