Braskem

Datasheet
23/09/2019

High Density Polyethylene GM5240PR

Description:

GM5240PR is a High Density Polyethylene compound specially developed for the manufacturing of pipes, underground conduits, and steel pipe coating. This resin is produced with bimodal technology and shows excellent mechanical properties and resistance to stress cracking. GM5240PR contains carbon black pigment that protects it against ultraviolet radiation action and photodegradation.

Meets the requirements of ABNT NBR 15221-1:15, CSA Z245.20 Series-10:10 and GS EP COR 220 rev.11.

Applications:

Pipes for mining , Triple layer coating on metal tubes, Pipes for irrigation

Processes:

Pipes Extrusion

Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/2.16kg)	ASTM D 1238	g/10 min	0.55
Density	ASTM D 792	g/cm³	0.957

Typical Properties - Plaque[1]:

Plaque Properties

Feature	Method	Units	Values
Tensile Strength at Yield (a)	ASTM D 638	MPa	23
Elongation at Yield (a)	ASTM D 638	%	9.9
Tensile Strength at Break (a)	ASTM D 638	MPa	28
Elongation at Break (a)	ASTM D 638	%	840
Flexural Modulus - 1% Secant (b)	ASTM D 790	MPa	980
Shore D Hardness (c)	ASTM D 2240	-	61
Izod Impact Strength (b)	ASTM D 256	J/m	85
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)	ASTM D 648	ºC	68
Vicat Softening Temperature at 10 N (b)	ASTM D 1525	°C	121
Carbon Black Content	ASTM D 1603	%	2.4
UV Absorption Coefficient	ASTM D 3349	Abs/cm	> 3000

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

Final Remarks:

1. 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.
2. For regulatory information of the product, please refer to Regulatory Document or contact our Technical Assistance Area.
3. For information about safety, handling, individual protection, first aids and waste disposal, please refer to MSDS.
4. The mentioned values in this report can be changed at any moment without Braskem previous communication.
5. HDPE is not a hygroscopic material. However, carbon black, which is used as an anti-UV additive, absorbs moisture from the environment. Therefore, all HDPE containing carbon black in its composition must be dried before use. The drying process must be made at least for 2 hours at 90°C. Under these conditions the amount of moisture decreases to values that will not interfere in the processability of the resin. The use of this resin without previous drying may cause problems in the finished product, such as blistering and/or roughness of the surface.