


Datasheet

23/09/2019

High Density Polyethylene GM5010T2U

Description:

GM5010T2U is a High Density Polyethylene compound with high molar mass specially developed for the manufacturing of jacketing of umbilicals. It is produced with bimodal technology, shows high mechanical properties and has excellent resistance to stress cracking. GM5010T2U contains carbon black pigment that protects it against ultraviolet radiation action and photodegradation.

Applications:

Umbilical cables cape, Risers and Flowlines for Petroleum Platform

Processes:

Pipes Extrusion

Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/2.16kg)	ASTM D 1238	g/10 min	0.45
Melt Flow Rate (190°C/5kg)	D 1238	g/10 min	0.45
Density	D 792	g/cm ³	0.955

Typical Properties - Plaque¹:

Plaque Properties

Feature	Method	Units	Values
Tensile Strength at Yield (a)	D 638	MPa	23
Elongation at Yield (a)	D 638	%	9.1
Tensile Strength at Break (a)	D 638	MPa	34
Elongation at Break (a)	D 638	%	800
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	220
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	70
Vicat Softening Temperature at 10 N (b)	D 1525	°C	124
Carbon Black Content	D 1603	%	2,3 - 2,7
OIT (200°C)	D 3895	min	>50

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.