Braskem

Data Sheet

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.

Application:

Jacketing of umbilicals, risers and flowlines for oil field platforms.

Process:

Extrusion.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/5.0)	D 1238	g/10 min	0.45
Density	D 792	g/cm3	0.955

Typical Properties:

Plaque Properties[a]

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	23
Tensile Strength at Break	D 638	MPa	34
Flexural Modulus – 1% Secant	D 790	MPa	1090
Shore D Hardness	D 2240	-	62
Notched Izod Impact Strength	D 256	J/m	220
Environmental Stress Cracking Resistanceb	D 1693	h/F50	> 1000
Deflection Temperature under Load at 0.455 MPa	D 648	ºC	70
Vicat Softening Temperature at 10 N	D 1525	°C	124
Elongation at Yield	D 638	%	9.1
Elongation at Break	D 638	%	800
Carbon Black Content	D 1603	%	2.3 to 2.7
OIT at 200oC	D 3895	min	> 50

(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; 100% Igepal; 50ºC.