Braskem

Data Sheet

High Density Polyethylene GM5340PRK

Description:

GM5340PRK is a High Density Polyethylene compound specially developed for the manufacturing of ducts, subducts and jacketing for wires and cables. This resin is produced with bimodal technology and shows mechanical properties and resistance to stress cracking. GM5340PRK contains carbon black pigment that protects it against ultraviolet radiation action and photodegradation. The type and amount of carbon black used assure high UV absorption coefficient. It is also specially additivated to prevent copper catalytic oxidation.

Application:

Jacketing for wires and optic fiber metallic cables; insulation of copper wires and cables; self-propelled irrigation pipes; localized irrigation pipes; ducts for mining.

Process:

Extrusion.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/2.16)	D 1238	g/10 min	0.55
Density	D 792	g/cm3	0.959

Typical Properties:

Plaque Properties[a]

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	23
Tensile Strength at Break	D 638	MPa	28
Flexural Modulus – 1% Secant	D 790	MPa	980
Shore D Hardness	D 2240	-	61
Notched Izod Impact Strength	D 256	J/m	85
Environmental Stress Cracking Resistanceb	D 1693	h/F50	> 1000
Vicat Softening Temperature at 10 N	D 1525	°C	121
Deflection Temperature under Load at 0.455 MPa	D 648	ºC	68
Elongation at Yield	D 638	%	9.9
Elongation at Break	D 638	%	840
Carbon Black Content	D 1603	%	3.0
UV Absorption Coefficient	D 3349	Abs/cm	> 4000
Dieletric Constant, 1 KHz	D 150		2.6
Dissipation Factor, 1 KHz	D 150		0.001
Dieletric Strength	D 149	kV/mm	28
Volume Resistivity	D 257	ohm/cm	> 1x1015

(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.