

# Braskem PE GM5340PRK

High Density Polyethylene

Braskem

## Message:

The GM 5340 PRK is a High Density Polyethylene compounding specially developed for the manufacturing of pipes, underground conduits, steel pipe coating, and insulation for wires and cables. This resin is produced with bimodal technology, it has excellent mechanical properties, besides excellent resistance to stress cracking. GM 5340 PRK contains carbon black pigment that guarantees resistance against photodegradation. The amount and the type of carbon black used guarantee a high UV absorption coefficient. It contains especial additive package against 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.

General Information			
Additive	Antioxidant 2		
	Carbon Black (3%)		
Features	Antioxidant		
	Good Crack Resistance		
	Good UV Resistance		
	High Density		
Uses	Cable Jacketing		
	Conduit		
	Pipe Coatings		
	Piping		
Forms	Pellets		
Processing Method	Extrusion		
	Pipe Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.959	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.55	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance <sup>1</sup> (50°C, 2.00 mm, 10% Igepal, Compression Molded, F50)	> 1000	hr	ASTM D1693B
Carbon Black Content	3.0	%	ASTM D1603
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	61		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method

Tensile Strength			ASTM D638
Yield, Compression Molded	23.0	MPa	
Break, Compression Molded	28.0	MPa	
Tensile Elongation			ASTM D638
Yield, Compression Molded	9.9	%	
Break, Compression Molded	840	%	
Flexural Modulus - 1% Secant (Compression Molded)	980	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (Compression Molded)	85	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, Compression Molded)	68.0	°C	ASTM D648
Vicat Softening Temperature	121	°C	ASTM D1525 <sup>2</sup>
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+15	ohms·cm	ASTM D257
Dielectric Strength	28	kV/mm	ASTM D149
Dielectric Constant (1 kHz)	2.60		ASTM D150
Dissipation Factor (1 kHz)	1.0E-3		ASTM D150
Additional Information	Nominal Value	Unit	Test Method
UV Absorption Coefficient	> 4000	Abs/cm	ASTM D3349
NOTE			
1.	notched plaques		
2.	Loading 1 (10 N)		

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### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

