

Safrene® M 5010PE100 BLK

High Density Polyethylene

Safripol (PTY) LTD

Message:

Safrene™ M 5010PE100 BLK is a black High Density Polyethylene Resin suitable for all dimensions of PE100 piping where transportation of potable water, irrigation, effluent, slurry and certain chemical substances is required. It is a high molecular mass grade with good impact strength, abrasion, chemical and UV resistance, and complies with the PE100 (MRS 10) requirements of ISO 4427:1996.

Safrene™ M 5010PE100 BLK High Density Polyethylene Resin is supplied only in the form of black UV resistant granules.

General Information			
Features	High molecular weight		
	Impact resistance, good		
	Good UV resistance		
	Good wear resistance		
	Good chemical resistance		
	Compliance of Food Exposure		
Uses	Piping system		
Agency Ratings	European 2002/72/EC		
Appearance	Black		
Forms	Particles		
Processing Method	Pipeline extrusion molding		
Physical	Nominal Value	Unit	Test Method
Density	0.958	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	9.0	g/10 min	ISO 1133
190°C/5.0 kg	0.25	g/10 min	ISO 1133
Viscosity Number (Reduced Viscosity)	390.0	ml/g	ISO 1628
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	61		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-2/50
Yield, molding	24.0	MPa	ISO 527-2/50
Fracture, molding	35.0	MPa	ISO 527-2/50
Tensile Strain (Break, Compression Molded)	> 600	%	ISO 527-2/50
Flexural Stress (3.5% Strain, Compression Molded)	19.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C, molded	6.0	kJ/m ²	ISO 179

23°C, molded	20	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	67.0	°C	ISO 306/B
Melting Temperature (DSC)	130 - 133	°C	ISO 3146
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	180 - 200	°C	
Cylinder Zone 2 Temp.	190 - 220	°C	
Cylinder Zone 3 Temp.	190 - 220	°C	
Melt Temperature	190 - 220	°C	
Extrusion instructions			
Feed Zone: 160 to 170°C			

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