

# iMPACT 100®

High Density Polyethylene

Safripol (PTY) LTD

## Message:

iMPACT 100® 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 material requirements of ISO 4427:2007 and ISO 4437:2007.

iMPACT 100® High Density Polyethylene is supplied only in the form of black UV resistant granules.

Typical Applications

Pipes for:

Municipal water mains

Irrigation

Effluent

Slurries

Chemical waste

Gas mains

General Information			
Additive	Antistatic		
Features	Good Abrasion Resistance		
	Good Chemical Resistance		
	Good Impact Resistance		
	Good UV Resistance		
	High Molecular Weight		
Uses	Irrigation Applications		
	Piping		
Agency Ratings	EU 10/2011		
	ISO PE 100		
Appearance	Black		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density <sup>1</sup>	0.957	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/21.6 kg	9.0	g/10 min	
190°C/5.0 kg	0.30	g/10 min	
Carbon Black Content	2.0 to 2.5	%	ISO 6964
Carbon Black Dispersion	< 3		ISO 18553
Oxidation Induction Time (210°C)	> 20	min	ISO 11357
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	63		ASTM D2240

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup>			ASTM D638
Yield, Compression Molded	26.0	MPa	
Break, Compression Molded	33.0	MPa	
Tensile Elongation <sup>3</sup> (Break, Compression Molded)	> 760	%	ASTM D638
Extrusion	Nominal Value	Unit	
Hopper Temperature	160 to 170	°C	
Cylinder Zone 1 Temp.	180 to 200	°C	
Cylinder Zone 2 Temp.	190 to 220	°C	
Cylinder Zone 3 Temp.	190 to 220	°C	
Melt Temperature	190 to 220	°C	
NOTE			
1.	Unannealed		
2.	50 mm/min		
3.	50 mm/min		

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#### Recommended distributors for this material

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