

# Safrene® M 6650

High Density Polyethylene

Safripol (PTY) LTD

## Message:

Safrene® M 6650 High Density Polyethylene Resin is a high molecular mass grade specifically designed for extrusion blow moulding of containers greater than 20 liter capacity. It has a high melt viscosity and is primarily recommended for use on modern generation equipment.

Safrene® M 6650 High Density Polyethylene Resin exhibits outstanding impact strength, high rigidity and good environmental stress-crack resistance. It is particularly suitable for drum applications between 50 liter and 250 liter and satisfies SABS 1176 requirements for the transportation of dangerous goods.

General Information			
Features	Ultra-high impact resistance		
	Rigidity, high		
	High ESCR (Stress Cracking Resistance)		
	High molecular weight		
	Compliance of Food Exposure		
	Viscosity, High		
Uses	Industrial container		
	Drum		
	Optical cable insulation material		
	Container		
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1c		
	Europe 10/1/2011 12:00:00 AM		
Processing Method	Blow molding		
	Extrusion		
	Extrusion blow molding		
Physical	Nominal Value	Unit	Test Method
Density <sup>1</sup>	0.953	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/21.6 kg	5.0	g/10 min	ISO 1133
190°C/5.0 kg	0.20	g/10 min	ISO 1133
Viscosity Number (Reduced Viscosity)	450.0	ml/g	ISO 1628
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	63		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-2/50
Yield, molding	26.0	MPa	ISO 527-2/50

Fracture, molding	46.0	MPa	ISO 527-2/50
Tensile Strain (Break, Compression Molded)	> 600	%	ISO 527-2/50
Flexural Stress (3.5% Strain, Compression Molded)	21.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (-30°C, Compression Molded)	35	kJ/m <sup>2</sup>	ISO 179
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	80.0	°C	ISO 306/B
Peak Crystallization Temperature (DSC)	130 - 133	°C	ISO 3146
Additional Information			
Blow Molding conditions: Feed Zone: 170 to 190°C Zone 1: 180 to 200°C Zone 2: 200 to 220°C Zone 3: 200 to 220°C Melt Temperature: 200 to 220°C			
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	170 - 190	°C	
Cylinder Zone 2 Temp.	180 - 200	°C	
Cylinder Zone 3 Temp.	200 - 220	°C	
Cylinder Zone 4 Temp.	200 - 220	°C	
Melt Temperature	200 - 220	°C	
NOTE			
1.	Unannealed		

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