# Safrene® M 7650

## High Density Polyethylene

Safripol (PTY) LTD

#### Message:

Safrene® M 7650 High Density Polyethylene Resin is a high molecular mass grade suitable for extrusion blow moulding of containers greater than 20 litre capacity. It has a high rigidity and hardness with very good impact strength and environmental stress-crack resistance properties. Safrene® M 7650 High Density Polyethylene Resin was primarily designed for the blow moulding of large hollow articles but may be used for smaller mouldings where exceptional environmental stress-crack resistance and impact strength are required.

Features   Rigidity, high.     High ESCR (Stress Cracking Resistance)     High molecular weight     Impact resistance, good     Compliance of Food Exposure     High hardness     Uses   Bellows     Sheet     Container     Agency Ratings   FDA 21 CFR 177.1520(c) 3.1c     Europe 10/1/2011 12:00:00 AM     Processing Method   Blow molding     Pipeline extrusion molding     Extrusion     Extrusion Molding     Physical   Nominal Value     Met Mass-Fhow Rate (MFR)   ISO 1183     190°C/21.6 kg   9.5   g/10 min   1SO 1133     190°C/21.6 kg   0.35   g/10 min   1SO 1133     190°C/21.6 kg   0.35   g/10 min   1SO 1133     190°C/21.6 kg   0.35.0   ml/g   1SO 1628     Hardness   Nominal Va	General Information				
High molecular weight Impact resistance, good Compliance of Food Exposure High hardnessHigh molecular weight Impact resistance, good Compliance of Food Exposure High hardnessUsesBellows Sheet ContainerBellows Sheet ContainerAgency RatingsBellows Sheet ContainerSheet Sheet ContainerProcessing MethodBlow molding Pipeline extrusion molding Extrusion Extrusion Both and Moleg Sheet extrusion molding Sheet extrusion Sheet extrusion molding Sheet extrusion Sheet ex	Features	Rigidity, high			
Impact resistance, good Compliance of Food Exposure High hardnessImpact resistance, good Compliance of Food Exposure High hardnessUsesBellows Sheet ContainerImpact resistance, good Sheet ContainerAgency RatingsFDA 21 CFR 177.1520(c) 3.1 c Europe 10/1/2011 12:00:00 AMImpact resistance, good Pipeline extrusion molding Extrusion Extrusion Biow molding Sheet extrusion moldingImpact resistance, good Sol 133PhysicalNominal ValueUnitTest MethodPhysicalNominal ValueImpact resistance, good grometics (Shore D, Sol 35Impact resistance, good grometics (Shore D, Sol 88Promoter Hardness (Shore D, Extrusion Compression Molded)Sol 80Impact resistance, good grometics (Shore D, Sol 88Promoter Hardness (Shore D, ExtrusionSol 100Impact resistance, good grometics (Shore D, Sol 88		High ESCR (Stress Cracking Resistance)			
Compliance of Food Exposure High hardness   High hardness     Uses   Belows     Shet   Container     Agency Ratings   FDA 21 CFR 177.1520(c) 3.1c Europe 101/2011 12:00:00 AM     Processing Method   Blow molding Pipeline extrusion molding Extrusion     Processing Method   Blow molding Pipeline extrusion molding Extrusion Extrusion Bolow molding Extrusion Extrusion Bolow molding Extrusion   Jane Method     Physical   Nominal Value   Unit of test Method     Physical   Siet extrusion molding Extrusion Botom molding   Jane Method     Physical   Nominal Value   Unit of test Method     1907(21.6 kg   9.5   9/10 min   Sio 1133     1907(21.6 kg   9.50.0   m/log   Sio 1133     1907(25.0 kg   Nominal Value   Init of test Method     1907(25.0 kg   Nominal Value   Not   Test Method     Renderes   Kontruston   Sio 888   Sio 888     Renderes   Nominal Value   Not		High molecular weight			
High hardness     Uses   Belows Sheet Container     Agency Ratings   FDA 21 CFR 177.1520(c) 3.1 c Europ 10/1/2011 12:00:0 AM     Processing Method   Bow molding Pipeline extrusion molding Etrusion Etrusion Bolow molding Etrusion Bolow molding Etrusion Bolow molding Bet extrusion molding Etrusion Bot etrusion molding Etrusion Bolow molding   Test Method     Physical   Nominal Value   Unit   Test Method     Information   S0.0   minal value   Minal Value   Init   Test Method     Information   S0.0   minal value   Init   Test Method     Ferdines   Solo   minal Value   Init   Test Method     HertAndress (Shore D, Compression Moldied)   S0.2   S0.		Impact resistance, good			
Uses   Bellows   Sheet     Sheet   Container     Agency Ratings   FDA 21 CFR 177.1520(c) 3.1c     Europe 10/1/2011 12.00:00 AM   Europe 10/1/2011 12.00:00 AM     Processing Method   Blow molding     Pipeline extrusion molding   Extrusion     Extrusion blow molding   Extrusion     Sheet extrusion molding   Sheet extrusion molding     Physical   Nominal Value   Unit     Density 1   0.953   g/cm <sup>3</sup> So 1183     190°C/21.6 kg   9.5   g/10 min   So 1133     190°C/21.6 kg   0.35   g/10 min   So 1133     190°C/21.6 kg   0.35.0   mi/g   So 1133     Viscosity Number (Reduced Viscosity)   35.0.0   mi/g   So 126.8     Purometer Hardness (Shore D, Compression Molded)   62   Extrusion   So 468.6     Mechanical   Nominal Value   Unit   Text Method		Compliance of Food Exposure			
Sheet Container     Agency Ratings   FDA 21 CFR 177.1520(c) 3.1c Exrope 10/1/2011 12.00:00 AM     Processing Method   Blow molding Pipeline extrusion molding Extrusion Extrusion Bate extrusion molding Extrusion Sheet extrusion molding Sheet extrusion Sheet extrusion molding Sheet extrusin		High hardness			
Sheet   Container     Agency Ratings   FDA 21 CFR 177.1520(c) 3.1c     Lucope 10/1/2011 12.00:00 AM   Lucope 10/1/2011 12.00:00 AM     Processing Method   Blow molding     Pipeline extrusion molding   Lucope 10/1/2011 12.00:00 AM     Extrusion   Lucope 10/1/2011 12.00:00 AM     Processing Method   Blow molding     Pipeline extrusion molding   Lucope 10/1/2011 12.00:00 AM     Physical   Nominal Value     Physical   Nominal Value     Physical   Nominal Value     Postical   905     Meth Mass-Flow Rate (MFR)   Intian 100     190°C/21.6 kg   9.5     190°C/21.6 kg   9.5     190°C/21.6 kg   9.5     190°C/21.6 kg   Sio.10     190°C/21.6 kg   0.35     190°C/21.6 kg   Sio.10     190°C/21.6 kg   S	Uses	Bellows			
Agency Ratings   FDA 21 CFR 177.1520(c) 3.1c Europe 10/1/2011 12:00:00 AM     Processing Method   Blow molding Pipeline extrusion molding Extrusion Extrusion blow molding Extrusion blow molding Shet extrusion molding Shet extrusion molding     Physical   Nominal Value   Unit   Test Method     Physical   Nominal Value   Jon 20 (2m <sup>3</sup> )   ISO 1183     Meit Mass-Flow Rate (MFR)   ISO 1133   ISO 1133     190°C/21.6 kg   9.5   g/10 min   ISO 1133     190°C/5.0 kg   0.35   g/10 min   ISO 1133     190°C/5.0 kg   0.35.0   m/g   ISO 1133     Viscosity Number (Reduced Viscosity)   35.0.0   m/g   ISO 1628     Hardness   Nominal Value   Unit   Test Method     Durometer Hardness (Shore D, Compression Molded)   62   ISO 868	0303				
Agency Ratings   FDA 21 CFR 177.1520(c) 3.1c Europe 10/1/2011 12:00:00 AM   State 2000 Control Contecont Contecont Control Control Contrecontecon Control					
Europe 10/1/2011 12:00:00 AMProcessing MethodBlow molding Pipeline extrusion molding Extrusion Extrusion blow molding Stet extrusion molding Stet extrusion molding Density 1PhysicalNominal ValueDensity 10.9530.953g/cm³10°C/21.6 kg9.510°C/21.6 kg0.3510°C/21.6 kg0.3510°C/21.6 kg35.010°C/21.6 kg35.010°C/21.6 kg0.50.010°C/21.6 kg0.50.010°C/21.		Container			
Europe 10/1/2011 12:00:00 AMProcessing MethodBlow molding Pipeline extrusion molding Extrusion Extrusion blow molding 	Agency Ratings	FDA 21 CFR 177.1520(c) 3.1c			
Pipeline extrusion molding Extrusion Extrusion blow molding Sheet extrusion moldingPhysicalNominal ValueUnitTest MethodDensity 10.953g/cm³So 1183Melt Mass-Flow Rate (MFR)50 133So 1133190°C/21.6 kg9.5g/10 minSo 1133190°C/5.0 kg0.35g/10 minSo 1133Viscosity Number (Reduced Viscosity)35.0ml/gSo 1283HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D, Compression Molded)62So 868MechanicalNominal ValueUnitTest Method					
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Sheet extrusion molding     Physical   Nominal Value   Unit   Test Method     Density 1   0.953   g/cm³   S0 1183     Mett Mass-Flow Rate (MFR)   ISO 133   ISO 133     190°C/21.6 kg   9.5   g/10 min   ISO 1133     190°C/20 kg   0.35   g/10 min   ISO 133     Victority Number (Reduced Viscosity)   350.0   m/g   ISO 1628     Hardness   Nominal Value   Unit   Test Method     Compression Molded)   62   ISO 868   ISO 868		Extrusion			
PhysicalNominal ValueUnitTest MethodDensity 10.953g/cm³ISO 1183Melt Mass-Flow Rate (MFR).ISO 1133190°C/21.6 kg9.5g/10 minISO 1133190°C/5.0 kg0.35g/10 minISO 1133Viscosity Number (Reduced Viscosity)350.0ml/gISO 1628HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D, Compression Molded)62Iso 1628MechanicalNominal ValueUnitIso 868		Extrusion blow molding			
Density 1     0.953     g/cm <sup>3</sup> ISO 1183       Melt Mass-Flow Rate (MFR)     ISO 1133     ISO 1133       190°C/21.6 kg     9.5     g/10 min     ISO 1133       190°C/5.0 kg     0.35     g/10 min     ISO 1133       Viscosity Number (Reduced Viscosity)     350.0     ml/g     ISO 1628       Hardness     Nominal Value     Unit     Test Method       Durometer Hardness (Shore D, Compression Molded)     62     IsO 868       Mechanical     Nominal Value     Unit     Test Method		Sheet extrusion molding			
Melt Mass-Flow Rate (MFR)ISO 1133190°C/21.6 kg9.5g/10 minISO 1133190°C/5.0 kg0.35g/10 minISO 1133Viscosity Number (Reduced Viscosity)350.0ml/gISO 1628HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D, Compression Molded)62ISO 868MechanicalNominal ValueUnitTest Method	Physical	Nominal Value	Unit	Test Method	
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Viscosity Number (Reduced Viscosity)350.0ml/gISO 1628HardnessNominal ValueUnitTest MethodDurometer Hardness (Shore D, Compression Molded)62ISO 868MechanicalNominal ValueUnitTest Method	190°C/21.6 kg	9.5	g/10 min	ISO 1133	
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Durometer Hardness (Shore D, Compression Molded) 62 ISO 868   Mechanical Nominal Value Unit Test Method	Viscosity Number (Reduced Viscosity)	350.0	ml/g	ISO 1628	
Compression Molded) 62 ISO 868   Mechanical Nominal Value Unit Test Method	Hardness	Nominal Value	Unit	Test Method	
		62		ISO 868	
	Mechanical	Nominal Value	Unit	Test Method	
Tensile Stress ISO 527-2/50	Tensile Stress			ISO 527-2/50	

26.0	MPa	ISO 527-2/50
40.0	MPa	ISO 527-2/50
> 600	%	ISO 527-2/50
22.0	MPa	ISO 178
Nominal Value	Unit	Test Method
		ISO 179
20	kJ/m²	ISO 179
23	kJ/m²	ISO 179
Nominal Value	Unit	Test Method
80.0	°C	ISO 306/B
130 - 133	°C	ISO 3146
	40.0 > 600 22.0 Nominal Value 20 23 Nominal Value 80.0	40.0   MPa     > 600   %     22.0   MPa     22.0   Unit     20   kJ/m²     23   kJ/m²     Nominal Value   Unit     80.0   °C

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