SAFRIPOL
shaping your world, responsibly

Safripol (Pty) Ltd

Safrene® (High Density PolyEthylene)

Technical Data Sheet

M 6650

High Density Polyethylene

Safrene® M 6650 High Density Polyethylene Resin is a bimodal high molecular weight grade specifically designed for extrusion blow moulding of containers greater than 20 litres in volume. 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 excellent environmental stress-crack resistance. It is particularly suitable for drum applications between 50 and 250 litre and satisfies the requirements of SABS 1176 for the transportation of dangerous goods.

Typical Applications

- Drums and Industrial chemical containers up to 250 litre

PROPERTIES[1]	VALUE	UNIT	TEST METHOD
Physical			
Melt Flow Rate, 190 °C/ 5 kg	0.20	g/10min	ISO 1133
Melt Flow Rate, 190 °C/ 21.6 kg	5.0	g/10min	ISO 1133
Density [2]	0.953	g/cm ^{3}	ISO 1183
Mechanical [3]			
Hardness Shore D	63	Units	ISO 868
Tensile Yield [4]	26	MPa	ISO 527
Ultimate Tensile [4]	46	MPa	ISO 527
Ultimate Elongation[4]	>600	%	ISO 527
Flexural Modulus	1300	MPa	ISO 178
Environmental Stress-Crack Resistance[5]	>1000	Hours	ASTM D1693
Impact [3]			
Charpy Notched Impact Strength (23 °C)	43	kJ/m^2	ISO 179
Charpy Notched Impact Strength (-30 °C)	36	kJ/m^2	ISO 179
Thermal			
Vicat Softening Point A (10N)	129	°C	ISO 306/A
Vicat Softening Point B (50N)	80	°C	ISO 306/B
Crystalline Melting Range	130-133	°C	ISO 3146

(1) Typical values; not to be construed as specification limits.
(2) Unannealed.
(3) Compression moulded samples.
(4) Test speed 50mm/min
(5) Bell test condition B, 50°C, 10% Igepal, F50

Typical processing conditions	Blow Moulding	Extrusion
Feed Zone (°C)	170 - 190	170 - 190
Zone 1 (°C)	180 - 200	180 - 200
Zone 2 (°C)	200 - 220	200 - 220
Zone 3 (°C)	200 - 220	200 - 220
Die (°C)	200 - 210	200 - 210
Melt Temp (°C)	200 - 220	200 - 220

SAFRIPOL
shaping your world, responsibly

Safripol (Pty) Ltd

Safrene® (High Density PolyEthylene)

Technical Data Sheet

M 6650

High Density Polyethylene

Product Stewardship	At Safripol, protecting people and the environment will be a part of everything we do and every decision we make. Each employee has a primary responsibility in ensuring that our products and operations meet applicable government standards. Our goal is to eliminate all injuries, prevent adverse environment and health impacts, reduce wastes and emissions and promote resource conservation at every stage of the life cycle of our products. The success of this rests with each and every individual involved with Safripol products throughout the life cycle.
Food Contact Compliance	Safrene® M 6650 High Density Polyethylene Resin should comply with Commission Regulation (EU) No 10/2011 and with U.S. FDA 21 CFR 177.1520(c)3.1c food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. The purchaser remains responsible for determining whether the use complies with all relevant regulations.
Customer Notice	Safripol strongly encourages its customers to review both their manufacturing processes and their applications of Safripol products from the standpoint of human health and environmental quality to ensure that Safripol products are not used in ways for which they are not intended or tested. Safripol personnel are available to answer your questions and to provide reasonable technical support. Safripol product literature, including safety data sheets, should be consulted prior to use of Safripol products. Current safety data sheets are available from Safripol.
Safripol Medical Application Policy	Safripol will not knowingly sell or sample any product or service ("Product") into any commercial or developmental application that is intended for: a. permanent (Long term) contact with internal body fluids or internal body tissues. Long term is a use which exceeds 72 continuous hours. b. use in cardiac prosthetic devices regardless of the length of time involved; (Cardiac prosthetic devices include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass assisted devices); c. use as a critical component in medical devices that support or sustain human life; or d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction. Additionally, all Products intended for use in pharmaceutical applications, other than pharmaceutical packaging, must pass the current Pharmaceutical Liability Guidelines. ● New business opportunities require a business assessment prior to sale or sampling of Safripol products. ● Authorized distributors and resellers will adhere to this medical policy. ● Safripol does not endorse or claim suitability of their products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Safripol product is safe, lawful, and technically suitable for the intended use. SAFRIPOL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY SAFRIPOL PRODUCT FOR USE IN MEDICAL APPLICATIONS.
Disclaimer	The Customer is responsible for determining whether products and the information in this document are appropriate for the Customer's use and for ensuring that the Customer's workplace and disposal/ recycling practices of our products and packaging are in compliance with applicable laws and other governmental enactments. Safripol assumes no obligation or liability for the information in this document. **NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.** NOTICE: If products are described as "experimental" or "developmental": (1) product specifications may not be fully determined; (2) analysis of hazards and caution in handling and use are required; and (3) there is greater potential for Safripol to change specifications and/or discontinue production.

Additional Information

Our contact details:

Safripol (Pty) Ltd
Private Bag X 52 Bryanston
2021
South Africa

Gauteng:
Tel: +27 (0) 11 575 4549

Kwa-Zulu Natal:
Tel: +27 (0) 31 450 4111

Website: www.safripol.com

Email: info@safripol.com

Published: July 2019