

Safrene® (High Density PolyEthylene)

Technical Data Sheet

E 5560

High Density Polyethylene

Typical Applications

Safrene® E 5560 High Density Polyethylene Resin is designed for compression moulding applications. Having excellent mechanical strength, toughness, environmental stress-crack resistance and good processability, it is especially suitable for the production of carbonated soft drink closures.

- Caps and closures for carbonated and non-carbonated beverage applications

PROPERTIES ⁽¹⁾	VALUE	UNIT	TEST METHOD
Physical			
Melt Flow Rate, 190 °C/ 5 kg	1.5	g/10min	ISO 1133
Melt Flow Rate, 190 °C/ 2.16 kg	0.3	g/10min	ISO 1133
Density ⁽²⁾	0.957	g/cm ³	ISO 1183
Mechanical⁽³⁾			
Tensile Yield	28	Units	ISO 527
Flexural Modulus ⁽⁴⁾	1450	MPa	ISO 178
Environmental Stress-Crack Resistance ⁽⁵⁾	150	MPa	ASTM D 1693
Impact⁽³⁾			
Charpy Notched Impact Strength (23 °C)	12	kJ/m ²	ISO 179
Thermal			
Vicat Softening Point A (10N)	128	°C	ISO 306/A
Vicat Softening Point B (50N)	78	°C	ISO 306/B
Crystalline Melting Range	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	Compression Moulding
Feed Zone (°C)	160 - 170
Zone 1 (°C)	170 - 180
Zone 2 (°C)	170 - 180
Zone 3 (°C)	180 - 190
Die (°C)	190 - 200
Melt Temp (°C)	190 - 200

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Product Stewardship	<p>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.</p> <p>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.</p>
Food Contact Compliance	<p>Safrene® E 5560 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.</p>
Customer Notice	<p>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.</p>
Safripol Medical Application Policy	<p>Safripol will not knowingly sell or sample any product or service ("Product") into any commercial or developmental application that is intended for:</p> <ol style="list-style-type: none"> permanent (Long term) contact with internal body fluids or internal body tissues. Long term is a use which exceeds 72 continuous hours. 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); use as a critical component in medical devices that support or sustain human life; or use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction. <p>Additionally, all Products intended for use in pharmaceutical applications, other than pharmaceutical packaging, must pass the current Pharmaceutical Liability Guidelines.</p> <ul style="list-style-type: none"> • 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. <p>SAFRIPOL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY SAFRIPOL PRODUCT FOR USE IN MEDICAL APPLICATIONS.</p>
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Additional Information

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