

# HDPE M 5010SH

## High Density Polyethylene Resin for Pipe and Extrusion Applications

HDPE M 5010SH Polyethylene Resin is a high molecular mass grade especially developed for pressure pipe applications. HDPE M 5010SH Polyethylene Resin has good impact strength, abrasion and chemical resistance properties. HDPE M 5010SH Polyethylene Resin is suitable for small and large diameter pressure pipe applications. HDPE M 5010SH Polyethylene Resin is also recommended for sheet extrusion.

**Note:** HDPE M 5010SH Polyethylene Resin should comply with U.S. FDA 21 CFR 177.1520(c)3.2a (with Restrictions) and Europe EU-Directive 2002/72/EC 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.

### Applications:

- Pipes for:
  - Drinking water
  - Irrigation
  - Effluent
  - Slurries
  - Chemical waste
- Sheet extrusion.

PROPERTIES <sup>(1)</sup>	UNIT	TEST METHOD	VALUE
<b>Physical</b>			
Melt Flow Index, 190 °C/5 kg	g/10min	ISO 1133	0.3
Melt Flow Index, 190 °C/21.6 kg	g/10min	ISO 1133	9
Density <sup>(2)</sup>	g/cm <sup>3</sup>	ISO 1183	0.948
Viscosity Number	cm <sup>3</sup> /g	ISO 1628-3	340
<b>Mechanical<sup>(3)</sup></b>			
Hardness, Shore D		ISO 868	61
Tensile Yield <sup>(4)</sup>	MPa	ISO 527	24
Ultimate Tensile <sup>(4)</sup>	MPa	ISO 527	35
Ultimate Elongation <sup>(4)</sup>	%	ISO 527	>600
Flexural Stress (3.5% Deflection)	MPa	ISO 178	19
Charpy Notched Impact Strength (23 °C)	kJ/m <sup>2</sup>	ISO 179	12
Charpy Notched Impact Strength (-30 °C)	kJ/m <sup>2</sup>	ISO 179	4
<b>Thermal</b>			
Vicat Softening Point, Load 5kg	°C	ISO 306	67
Crystalline Melting Range	°C	ISO 3146-85	130-133

(1) Typical values; not to be construed as specification limits.

(2) Unannealed.

(3) Compression moulded samples.

(4) Test speed 50 mm/min

<b>Product Stewardship</b>	<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>						
<b>Customer Notice</b>	<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>						
<b>Safripol Medical Application Policy</b>	<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"> <li>permanent (Long term) contact with internal body fluids or internal body tissues. Long term is a use which exceeds 72 continuous hours</li> <li>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);</li> <li>use as a critical component in medical devices that support or sustain human life; or</li> <li>use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.</li> </ol> <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"> <li>New business opportunities require a business assessment prior to sale or sampling of Safripol products.</li> <li>Authorized distributors and resellers will adhere to this medical policy.</li> <li>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.</li> </ul>						
<b>Disclaimer</b>	<p>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.</p> <p><b>NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.</b></p> <p>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.</p>						
<b>Additional Information</b>	<p><b>Our contact details</b></p> <table> <tr> <td>Gauteng:</td> <td>Kwa-Zulu Natal:</td> </tr> <tr> <td>Tel: +27 (0) 11 575 4549</td> <td>Tel: +27 (0) 31 469-0696</td> </tr> <tr> <td>Fax: +27 (0) 11 576 4549</td> <td>Fax: +27 (0) 31 469-0694</td> </tr> </table> <p>Safripol (Pty) Ltd Private Bag X 52 Bryanston 2021 South Africa</p>	Gauteng:	Kwa-Zulu Natal:	Tel: +27 (0) 11 575 4549	Tel: +27 (0) 31 469-0696	Fax: +27 (0) 11 576 4549	Fax: +27 (0) 31 469-0694
Gauteng:	Kwa-Zulu Natal:						
Tel: +27 (0) 11 575 4549	Tel: +27 (0) 31 469-0696						
Fax: +27 (0) 11 576 4549	Fax: +27 (0) 31 469-0694						
	Published September 2007						