

**H106-02NSA**

**Natural Polypropylene Homopolymer**

Safron<sup>®</sup> H106-02NSA Polypropylene Resin is designed specifically for carbonated soft drinks closure applications. The material is highly nucleated offering fast cycle times and also contains slip and antistatic additives. It exhibits a combination of high stiffness and toughness properties, as well as outstanding processing characteristics.

Safron<sup>®</sup> H106-02NSA Polypropylene Resin may also be used for select technical injection moulding applications.

**Typical Applications**

- Carbonated soft drinks closures
- Select domestic and industrial applications

| PROPERTIES <sup>(1)</sup>                      | VALUE | UNIT              | TEST METHOD |
|--|-------|-------------------|-------------|
| <b>Physical</b>                                |       |                   |             |
| Melt Flow Rate, 230 °C/ 2.16 kg                | 2.0   | g/10min           | ISO 1133    |
| Density  | 0.9   | g/cm <sup>3</sup> | ISO 1183    |
| <b>Mechanical <sup>(2)</sup></b>               |       |                   |             |
| Tensile Strength at Yield                      | 35    | MPa               | ISO 527     |
| Elongation at Yield                            | 7     | %                 | ISO 527     |
| Flexural Modulus                               | 1480  | MPa               | ISO 178     |
| <b>Thermal <sup>(2)</sup></b>                  |       |                   |             |
| Heat Deflection Temperature - HDT A (1.8 MPa)  | 55    | °C                | ISO 75/A    |
| Heat Deflection Temperature - HDT B (0.45 MPa) | 83    | °C                | ISO 75/B    |
| <b>Impact <sup>(2)</sup></b>                   |       |                   |             |
| Charpy Notched Impact Strength (23 °C)         | 6.0   | kJ/m <sup>2</sup> | ISO 179     |
| Charpy Notched Impact Strength (0 °C)          | 2.2   | kJ/m <sup>2</sup> | ISO 179     |

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

(2) Injection Moulded specimens.

| Typical processing conditions | Extrusion | Injection Moulding |
|-------------------------------|-----------|--------------------|
| Zone 1 (°C)                   | 200       | 190                |
| Zone 2 (°C)                   | 200 - 260 | 230 - 240          |
| Zone 3 (°C)                   | 220 - 280 | 240 - 260          |
| Zone 4 (°C)                   | 240 - 280 | 270                |
| Nozzle (°C)                   | ~         | 240                |
| Die (°C)                      | 250       | ~                  |

**H106-02NSA**

**Natural Polypropylene Homopolymer**

|  |   |
|--|---|
| <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>Food Contact Compliance</b>             | <p>Safron<sup>®</sup> H106-02NSA Polypropylene Resin should comply with Commission Regulation (EU) No 10/2011 and with U.S. FDA 21 CFR 177.1520(c)1.1a 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>   |
| <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.</li> </ul> <p><b>SAFRIPOL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY SAFRIPOL PRODUCT FOR USE IN MEDICAL APPLICATIONS.</b></p> |
| <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>  |

**Additional Information**

|  |   |
|--|---|
| Our contact details:   | <b>Gauteng:</b><br>Tel: +27 (0) 11 575 4549                     |
| Safripol (Pty) Ltd<br>Private Bag X 52 Bryanston<br>2021<br>South Africa | <b>Kwa-Zulu Natal:</b><br>Tel: +27 (0) 31 450 4111              |
| Website: <a href="http://www.safripol.com">www.safripol.com</a>          | Email: <a href="mailto:info@safripol.com">info@safripol.com</a> |
| Published:   | September 2019  |