



TECHNICAL DATA SHEET

Product Name



Product Type

High Density Polyethylene for Caps and Closures

Product Grade

SX002J

Product Description

SCG HDPE SX002J is high density polyethylene resin with superior stress cracking resistance and excellent mechanical property balance. It is particularly designed for light-weight carbonated soft drink caps. This resin have excellent processability for both injection molding and continuous compression molding.

Typical Application

- Beverage caps and closures
- Carbonated soft drink
- Sparkling water

Product Characteristics

- Superior stress cracking resistance
- Excellent processability
- Excellent mechanical property balance
- Good organoleptic property
- Contain Slip agent for good removal torque

International Compliance

- US FDA 21 CFR 177.1520
- Regulation (EU) no. 10/2011

Note: Direct food contact is subjected to the extraction provisions of the regulation on the finished food contact package.

Physical Properties

Property	Test Method	Typical Value	Unit
Melt Flow Rate (190°C, 2.16 kg)	ISO 1133	0.55	g/10 min
Density	ISO 1183-2	0.955	g/cm ³
Tensile Modulus	ISO 527	1,000	MPa
Tensile Strength at Yield	ISO 527	25	MPa
Tensile Strength at Break	ISO 527	16	MPa
Elongation at Yield	ISO 527	11	%
Flexural Modulus	ASTM D790	11,000	kg/cm ²
Charpy Impact Strength (at 23°C)	ISO 179	8	kJ/m ²
ESCR ^A	ASTM D1693	>1,000	Hr
Full Notch Creep Test (FNCT) ^B	ISO 16770	55	Hrs
Melting Point	ASTM D2117	130	°C
Heat Deflection Temperature at 4.6 kg/ cm ²	ASTM D648	70	°C

ESCR^A = F₅₀, 50°C, condition B, compression molded, 10% Igepal

FNCT^B = 50°C, 6 MPa, 2%wt Arkopol

Note: the given values are typical value measured on the product. Values herein are not to be constructed as a product specification

Thai Polyethylene Co., Ltd.

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Published December 2021

Page 1/3



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Processing Guidelines

The actual processing condition depends on each machine type, product size and mold design. Generally, melt temperature should be 190-240°C for injection molding and 160-200°C for continuous compression molding. The exceed melt temperature than 250°C might affect organoleptic property

Product Technical Assistance

For technical assistance or further information on this product or any other SCG Chemicals' products contact your SCG Chemicals technical service by email or address as specified below.

Product Available Form

- Pellet

Product Packaging

- 25 kg loose bag
- 25 kg stretch wrap palletized
- 750 kg big bag
- Sea bulk container

Storage

- Store in original container in tidy according to the manual of Handling and Storage from Thai Polyethylene Company Limited/Thai Polypropylene Company Limited.
- Product(s) should be stored in dry and dust free location at temperature below 50°C and protected from direct sunlight and/or heat, well-ventilated area, away from incompatible materials and food and drink, as this may lead to quality deterioration, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.
- Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- The storage area should be stable and not be sloped.

Safety

- The product is not classified as a hazardous material.
- Please see our Material Safety Data Sheet for details on various aspects of safety, recovery, and disposal of the products; for more information, contact your technical service.

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Page 2/3



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Recycling

- The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.
- Please see our Material Safety Datasheet for details on various aspects of safety, recovery and disposal of the products; for more information, contact your technical service.

Related Documents

- The latest version of this document will be available at our website, www.scgchemicals.scg.co.th, or can be obtained from the technical service.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
 - Material Safety Datasheet
 - Statement on compliance to food contact regulations.

Disclaimer

- The Applications specified herein is for reference only.
- It is customer's responsibilities to inspect and test the product for suitability of the customer's own use and purpose. The customer is responsible for appropriate, safe, legal use, processing and handling of the product.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. We however do not assume any liability whatsoever for the accuracy and completeness of the information contained herein.
- We make no warranties which extend beyond the description herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
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