Technical Data Sheet

Product Name: **HDPE**

Product Type: **High Density Polyethylene**

Product Grade: **SX002JA**

Product Description

SCGC™ HDPE SX002JA is a high density polyethylene resin with superior stress cracking resistant and excellent mechanical property balance. It is particularly designed for light-weight carbornated soft drink caps. This resin has excellent processability for both injection molding and continuous compression molding.

Typical Application

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

Product Characteristics

- Superior ESCR
- Excellent balance of stiffness and toughness
- Good organoleptic property

International Compliance

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

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate at 190 °C and 2.16 kg	ISO 1133	0.55	g/10 min
Density	ISO 1183-2	0.955	g/cm³
Tensile Modulus (1B, 1mm/min)	ISO 527	1,000	MPa
Tensile Strength at Yield (1B, 50 mm/min)	ISO 527	25	MPa
Tensile strength at Break (1B, 50 mm/min)	ISO 527	16	MPa
Elongation at Yield (1B, 50 mm/min)	ISO 527	11	%
Flexural Modulus	ISO 178	1,100	MPa
Charpy impact strength at 23 °C	ISO 179	8	kJ/m²
Environmental Stress Cracking Resistance (ESCR), F50, conditionB, 10% Igepal	ASTM D 1693	> 1,000	hrs
Melting Point	ASTM D 2117	130	°C
Heat Deflection Temperature at 4.6 kg/cm²	ASTM D 648	70	°C

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

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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 210-240°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 services at the 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 Co., Ltd.
- 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.
- The storage area should be stable and not be slopped.

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 SCG Chemicals technical services.

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 SCG Chemicals technical services.

Related Documents

- The latest version of this document will be available at our website, www.scgchemicals.com, or can be obtained from the SCG Chemicals technical services.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
  - Safety Data Sheet
  - Declaration of Compliance

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.
- No liability can be accepted in respect of the use of the product in conjunction with other materials. The information contained herein relates exclusively to the product when it is not used in conjunction with any third party's materials.