Technical Data Sheet

Product Name
SCGC™ HDPE

Product Type
High Density Polyethylene

Product Grade
H455JA

Product Description

SCGC HDPE H455JA is a high density polyethylene resin with good processability, good mechanical property, and excellent organoleptic property. It is particularly designed for injection molding and continuous compression molding of caps and closures for the packaging beverages, especially for lightweight cap design.

Typical Application

Beverage caps and closures
- Still and mineral water
- Hot-filled beverages
- Aseptic beverages

Product Characteristics

- Good processability
- High toughness
- Excellent organoleptic property

International Compliance

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

Physical Properties

Property	Test Method	Typical Value	Unit
Melt Flow Rate (at 190°C, 2.16 kg)	ASTM D1238	4.5	g/10 min
Density	ASTM D1505	0.958	g/cm^3
Tensile Strength at Yield	ASTM D638	280	kg/cm^2
Tensile Strength at Break	ASTM D638	250	kg/cm^2
Elongation at Break	ASTM D638	1,250	%
Flexural Modulus	ASTM D790	12,500	kg/cm^2
Notched Izod Impact Strength (at 23°C)	ASTM D256	39	J/m
ESCR [A]	ASTM D1693	7	Hrs.
Melting Point	ASTM D2117	132	°C
Heat Deflection Temperature (at 4.6 kg/ cm^2)	ASTM D648	84	°C

ESCR [A] = F_{50}, 50°C, condition B, compression molded, 10% Igepal

Note:
- The given values are typical value measured on the product. Values herein are not to be constructed as a product specification.
- Direct food contact is subjected to the extraction provisions of the regulation on the finished food contact package.

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Manufacturer website: https://www.scgchemicals.com/en

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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 190-230°C for injection molding and 160-190°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 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 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.

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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 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.

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