



# 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 <sup>3</sup>
Tensile Strength at Yield	ASTM D638	280	kg/cm <sup>2</sup>
Tensile Strength at Break	ASTM D638	250	kg/cm <sup>2</sup>
Elongation at Break	ASTM D638	1,250	%
Flexural Modulus	ASTM D790	12,500	kg/cm <sup>2</sup>
Notched Izod Impact Strength (at 23°C)	ASTM D256	39	J/m
ESCR <sup>A</sup>	ASTM D1693	7	Hrs.
Melting Point	ASTM D2117	132	°C
Heat Deflection Temperature (at 4.6 kg/ cm <sup>2</sup> )	ASTM D648	84	°C

ESCR <sup>A</sup> = F<sub>50</sub>, 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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### 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 sloped.

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