



# Technical Data Sheet

Product Name  
**SCGC™ HDPE**

Product Type  
**High Density Polyethylene**

Product Grade  
**S411B**

## Product Description

SCGC S411B is a high strength polyethylene resin designed for small blow molding containers. This grade provides excellent combination of stiffness and chemical resistance for container light weighting.

## Typical Application

- Personal and Homecare bottles
- Food, Milk and Drink containers
- Lubricant and Chemical containers
- Cosmetic bottles

## Product Characteristics

- Excellent combination of stiffness and chemical resistance
- Easy processability
- Recycle ability

## International Compliance

- U.S FDA 21 CFR 177.1520
- Regulation (EU) No.10/2011
- Packaging and Packaging waste directive 94/62/EC/CONEG

## Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	0.22	g/ 10 min
Density	ASTM D 1505	0.964	g/cm <sup>3</sup>
Melting Point	ASTM D 2117	132	°C
Vicat Softening Point	ASTM D 1525	128	°C
Brittleness Temperature	ASTM D 746	< - 60	°C
Tensile Strength at Yield	ASTM D 638	300	kg/cm <sup>2</sup>
Tensile Strength at Break	ASTM D 638	330	kg/cm <sup>2</sup>
Elongation at Break	ASTM D 638	1200	%
Flexural Modulus	ASTM D 790	16500	kg/cm <sup>2</sup>
Notched Izod Impact	ASTM D 256 @ 23 °C	97	J/m
ESCR	ASTM D 1693 @ 50 °C (Method B, Compression Molded, 25% Igepal)	100	Hrs, F <sub>50</sub>

**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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### Processing Guidelines

Recommended processing conditions:

The actual extrusion condition depends on type of using machine, size and wall thickness of product required. Generally, melt temperature should be 160-180 °C. 5-8 bar of blowing pressure is recommended. In some cases, enlargement of die and pin diameter (15-30%) may be suggested for increasing parison diameter.

### 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

- Block 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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