



# Technical Data Sheet

Product Name  
**SCGC™ HDPE**

Product Type  
**High Density Polyethylene**

Product Grade  
**S414B**

## Product Description

SCGC™ S414B is a high density polyethylene resin produced by SMX™ technology. This grade can be processed at high speed blow molding machine. It is recommended for milk bottles.

## Typical Application

- Milk bottles
- Fruit juice bottles

## Product Characteristics

- Good flowability
- Excellent stiffness
- Oderless

## 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	0.50	g/ 10 min
Density	ASTM D 1505 (anneal @ 100 °C)	0.963	g/cm <sup>3</sup>
Melting Point	ASTM D 2117	132	°C
Brittleness Temperature	ASTM D 746	< -70	°C
Tensile Strength at Break	ASTM D 638	345	kg/cm <sup>2</sup>
Elongation at Break	ASTM D 638	1,200	%
Flexural Modulus	ASTM D 790	16,500	kg/cm <sup>2</sup>
Notched Izod Impact	ASTM D 256 @ 23 °C	90	J/m
ESCR	ASTM D 1693	24	Hours, F <sub>50</sub>

(Method B, Compression Molded, 25% Igepal, 50 °C)

- Note:**
- The given values are typical value measured on the product. Values herein are not to be constructed as a product specification.
  - Conversion factor for changing unit from Kg/cm<sup>2</sup> to MPa is divided by 10.20.

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 190-210 °C. 3- 6 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

- 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.

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