



Technical Data Sheet

Product Name
SCGC™ HDPE

Product Type
High Density Polyethylene

Product Grade
H5840B

Product Description

SCGC HDPE H5840B is a high density polyethylene resin suitable for producing chemical bottles by using extrusion blow molding machine.

Typical Application

- Chemical bottles, Chemical drums
(Containing volume up to 30 liters)
- Personal and homecare bottles
- Lube oil bottles
- Brake fluid bottles

Product Characteristics

- Excellent environmental stress crack resistance (ESCR)
- Good surface appearance
- Good processability
- Good printability

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	0.4	g/ 10 min
HLMI	ASTM D 1238 @ 190 °C, 21.6 kg	40	g/ 10 min
Density	ASTM D 1505	0.955	g/cm ³
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	280	kg/cm ²
Tensile Strength at Break	ASTM D 638	350	kg/cm ²
Elongation at Break	ASTM D 638	1000	%
Flexural Modulus	ASTM D 790	13500	kg/cm ²
Notched Izod Impact	ASTM D 256 @ 23 °C	98	J/m
ESCR	ASTM D 1693 @ 50 °C (Method B, Compression Molded, 25% Igepal)	300	Hrs, F ₅₀

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

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 slopped.

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