



# Technical Data Sheet

Product Name  
**SCGC™ HDPE**

Product Type  
**HDPE Compound for Blow Molding Tank**

Product Grade  
**H800BBK**

## Product Description

SCGC™ HDPE H800BBK is a black color compound, high density polyethylene resin that is specially designed for large water tanks. It provides excellent mechanical properties and processability. Well dispersed carbon black pigment and anti-oxidant to ensure excellent long term UV resistance and thermal stability, especially outdoor application.

## Typical Application

- Water tank
- Buoyancy

## Product Characteristics

- Good processability
- High thermal stability
- Outstanding mechanical strength
- Good UV protection

## Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate at 190 °C and 5.0 kg	ISO 1133	0.18	g/10 min
Melt Flow Rate at 190 °C and 21.6 kg	ISO 1133	5	g/10 min
Density (Compound)	ISO 1183	0.963	g/cm <sup>3</sup>
Tensile Strength at Yield (100 mm/min)	ISO 527	25	MPa
Tensile Strength at Break (100 mm/min)	ISO 527	> 30	MPa
Tensile Modulus (1B, 1mm/min)	ISO 527	> 950	MPa
Elongation at Break (100 mm/min)	ISO 527	> 600	%
Flexural Modulus	ISO 178	> 1,000	MPa
Charpy impact strength at 23 °C	ISO 179	> 18	kJ/m <sup>2</sup>
Oxidative induction time at 210°C	ISO 11357	> 40	min
Heat Deflection Temperature @ 0.455 MPa	ASTM D 648	> 70	°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

For extrusion of SCGC™ HDPE H800BBK, it is recommended to use a screw equipped with suitable mixing screw elements in order to achieve pigment dispersion. For normal extrusion equipment, we suggest a melt temperature of 200 - 220 °C, and drying 80 - 90 °C for 1 - 2 hours before use.

### 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

- Black 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 Co., Ltd.
- 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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