



TECHNICAL DATA SHEET

Product Name

SCG HDPE

Product Type

PE112 Black HDPE Compound

Product Grade

H112PC

Product Description

SCG HDPE H112PC is a black high density polyethylene compound producing from high selective catalyst in the precise process control system, bimodal technology. SCG HDPE H112PC is classified as a MRS 11.2 material (PE112). It provide superior long - term hydro static strength balancing with high slow crack growth and rapid crack propagation resistance. It has been designed for better safety factor in long-term use. Besides that, it can be produced in all range of pipe diameters, especially recommended for the production of very thick wall and large diameter pipe.

Typical Application

- Drinking Water Pipes
- Gas pipes
- Industrial pipes
- Slurry pipes

Product Characteristics

- Excellent long term pressure resistance
- High resistance to slow crack growth
- Resistance to rapid crack propagation
- Excellent sagging resistance for the production of very thick wall and large diameter pipe

Physical Properties

Property	Test Method	Typical Value	Unit
Melt Flow Rate	ISO 1133 @ 190 °C, 5.0 kg	0.20	g/10 min
Density (Compound)	ISO 1183	0.959	g/cm ³
Tensile Strength at Yield	ISO 527 @ Crosshead speed 100 mm/min	24	MPa
Tensile Strength at Break	ISO 527 @ Crosshead speed 100 mm/min	> 30	MPa
Elongation at Break	ISO 527 @ Crosshead speed 100 mm/min	> 600	%
Carbon Black Content	ISO 6964	2.25	% by mass
Carbon Black Dispersion	ISO 18553	<3	-
Oxidative induction time	ISO 11357-6 @ 210 °C	≥ 50	min
Flexural Modulus	ASTM D 790	1000	MPa
MRS Classification	ISO 12162:2009/ ISO 9080	11.2	MPa
Resistance to slow crack growth	ISO 13479 @ 80 °C	> 1,000	Hrs
Rapid crack propagation	ISO 13477, Pc, S4	≥ 10	bar
Resistance to gas constituents	ISO 1167	> 25	Hrs

Note: Conversion factor for changing unit from kg/cm² to MPa is divided by 10.20

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Processing

For extrusion of SCG HDPE H112PC, it is recommended to use a screw giving good melting and mixing without excessive shear. A single or double flight PE screws have proven satisfactory and will be used with good result. 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 service at the address or telephone number as specified below.

Product Available Form

- Black Pellet

Product Packaging

- 25 kg loose bag
- 25 kg stretch wrap palletized
- 750 kg big bag
- Seabulk container

Storage

- Store in original container in tidy according to the manual of Handling and Storage from Thai Polyethylene Company Limited/Thai Polypropylene 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 odor generation and color 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.
- The storage area should be stable and not be slopped.

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