



TECHNICAL DATA SHEET

Product Name

SCG HDPE

Product Type

PE 100 Black HDPE Compound for Injection Molding

Product Grade

H1000 I

Product Description

EL-Lene H1000PCI is a black, bimodal technology, high density polyethylene compound classified as a MRS 10.0 material (PE100) providing superior in mechanical properties and processability. In addition, it includes a good dispersion of carbon black pigment and anti-oxidant to ensure excellent long term in UV resistance and thermal stability.

Typical Application

- Injection molding fitting element for butt -fusion and electro fusion socket and saddle welding pipe.

Product Characteristics

- High productivity
- Easy flow and less energy consumption
- High thermal stability

Physical Properties

Property	Test Method	Typical Value	Unit
Melt Flow Rate	ISO 1133 @ 190 °C, 5.0 kg	0.40	g/10 min
Density (Compound)	ISO 1183	0.960	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	> 40	min
Flexural Modulus	ASTM D 790	950	MPa
Melting temperature	ASTM D2117	130	°C
Heat Deflection Temperature	ASTM D648 (4.6 kg/cm ³)	80	°C
Vicat Softening Point	ASTM D1525	124	°C
MRS Classification	ISO 12162:2009/ ISO 9080	10.0	MPa
Resistance to slow crack growth	ISO 13479 @ 80 °C	> 500	hour

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

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Processing

The actual processing conditions depend on each machine type, product size, mold design and environment.

Recommend processing condition:

Drying temperature at 80 °C for 5 hours Melt temperature 180 - 250 °C Injection speed: medium

Screw speed 60 - 100 rpm Mold or cooling temperature 50 -70 °C.

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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