



## TECHNICAL DATA SHEET

Product Name

**SCG HDPE**

Product Type

**PE 100 Black HDPE Compound for Injection Molding**

Product Grade

**H1000PCI**

### 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 <sup>3</sup> |
| 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 <sup>3</sup> )  | 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/cm<sup>2</sup> 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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### Safety

- The product is not classified as a hazardous material.
- Please see our Material Safety Data Sheet for details on various aspects of safety, recovery, and disposal of the products; for more information, contact your SCG Plastics/SCG Performance Chemicals technical service.

### Recycling

- The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.
- Please see our Material Safety Datasheet for details on various aspects of safety, recovery and disposal of the products; for more information, contact your SCG Plastics/SCG Performance Chemicals technical service.

### Related

- The latest version of this document will be available at our website, [www.scgchemicals.com](http://www.scgchemicals.com), or can be obtained from the SCG Plastics/SCG Performance Chemicals technical service.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
  - Material Safety Datasheet
  - Statement on compliance to food contact regulations

### Disclaimer

- The Applications specified herein is for reference only.
- It is customer's responsibilities to inspect and test the product for suitability of the customer's own use and purpose. The customer is responsible for appropriate, safe, legal use, processing and handling of the product.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. We however do not assume any liability whatsoever for the accuracy and completeness of the information contained herein.
- We make no warranties which extend beyond the description herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
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