

### Product Description

EL-Lene H1000PBL is a blue (no lighter than RAL5005), bimodal, high density polyethylene compound that is specially designed for water pressure pipes, especially for drinking water pipes. EL-Lene H1000PBL is designed as PE100 pipes providing excellent in mechanical properties, and processability. Well dispersed UV stabilizer and anti-oxidant which also provide outstanding UV resistance and high thermal stability for long term using.

### Typical Application

- Drinking water pipes
- Stripe for PE100 pipe

### Product Characteristics

- Good processing
- High thermal stability
- Outstanding mechanical strength
- High UV resistance

### International specification

- NF Mark, France

### Physical properties

| Property                        | Test Method                          | Value   | Unit                |
|---------------------------------|--------------------------------------|---------|---------------------|
| Melt Flow Rate                  | ISO 1133 @ 190°C, 5.0 kg             | 0.28    | g/10 min            |
| Density (Compound)              | ISO 1183                             | 0.951   | g/cm <sup>3</sup>   |
| Tensile Strength at Yield       | ISO 527 @ Crosshead speed 100 mm/min | 23      | MPa                 |
| Tensile Strength at Break       | ISO 527 @ Crosshead speed 100 mm/min | 36      | MPa                 |
| Elongation at Break             | ISO 527 @ Crosshead speed 100 mm/min | 850     | %                   |
| Oxidative induction time        | ISO/TR10837 @ 200°C                  | >50     | min.                |
| MRS (Minimum required strength) | ISO 9080                             | 10      | MPa                 |
| Resistance to slow crack growth | ISO 13479 @ 80°C                     | > 1,000 | Hrs                 |
| Vicat softening temperature     | ASTM D 1225                          | 122     | °C                  |
| Hardness                        | ASTM D 2240                          | 66      | Shore D             |
| Notched Izod Impact             | ASTM D 256 @ 23°C                    | 31      | kg.cm/cm            |
| Notched Izod Impact             | ASTM D 256 @ 0°C                     | 27      | kg.cm/cm            |
| Notched Izod Impact             | ASTM D 256 @ -20°C                   | 20      | kg.cm/cm            |
| Flexural Modulus                | ASTM D 790                           | 1,000   | MPa                 |
| Brittleness temperature         | ASTM D 746                           | <-60    | °C                  |
| ESCR                            | ASTM D 1693                          | >10,000 | Hrs, F <sub>0</sub> |

### Processing Guidelines

For extrusion of EL-Lene H1000PBL, 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 equipments we suggest a melt temperature of 200 -220°C.

### Product Technical Assistance

For technical assistance or further information on this product or any other SCG Chemicals' products, please contact your SCG Chemicals technical service at the address or telephone number as specified below.

### Product Available Form

- Blue pellet

### Product Packaging

- 25 kg loose bag
- 750 kg big bag or Sea bulk

SCG Plastics Company Limited / SCG Performance Chemicals Company Limited





Technical Datasheet

PE 100 Blue HDPE Compound

EL-Lene™

**H1000PBL**

### 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 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.

EL-Lene™ EL-Pro™ EL-Wax™



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