

## Product Description

EL-Lene H5480S is a high density polyethylene resin which is suitable for producing monofilament or flat yarn products. It is manufactured by extrusion process with spinnerette die, T-die, annular die, coathanger die, etc.

## Typical Application

- Net
- Rope
- Tarpaulin

## Product Characteristics

- High tenacity
- Good product color
- Food contact applicable (Complies with U.S FDA 21 CFR 177.1520)

## Physical Properties

Property	Test Method	Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190°C, 2.16 kg	0.8	g/10 min
Density	ASTM D 1505	0.954	g/cm <sup>3</sup>
Tensile Strength at Yield	ASTM D 638 @ Crosshead speed 50 mm/min	270	kg/cm <sup>2</sup>
Tensile Strength at Break	ASTM D 638 @ Crosshead speed 50 mm/min	390	kg/cm <sup>2</sup>
Elongation at Break	ASTM D 638 @ Crosshead speed 50 mm/min	1200	%
Flexural Modulus	ASTM D 790	10000	kg/cm <sup>2</sup>
Notched Izod Impact	ASTM D 256 @ 23°C	17	kg.cm/cm
Notched Izod Impact	ASTM D 256 @ 0°C	14	kg.cm/cm
Hardness	ASTM D 2240	65	Shore D
ESCR	ASTM D 1693 @ 50°C (Condition B, Compression Molded, 25% Igepal)	30	hrs, F <sub>50</sub>
Melting Point	ASTM D 2117	131	°C
Vicat Softening Point	ASTM D 1525	126	°C
Brittleness Temperature	ASTM D 746	< - 60	°C

Note : Conversion factor for changing unit from kg/cm<sup>2</sup> to MPa is divided by 10.20

## Processing Techniques

The actual processing conditions depend on each machine type, product dimensions and environment. Generally, recommended screen mesh size 100-120 and allowable pressure should be less than 135 bar.

Recommended processing conditions:

Monofilament : Melt temperature range 250 - 280°C, Stretching Temperature 96 - 100°C, Stretching Ratio 8 - 12

Flat yarn : Melt temperature range 190 - 260°C, Stretching Temperature 100 - 130°C, Stretching Ratio 5 - 7

## 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

- Pellet

## Product Packaging

- 25 kg loose bag
- Big Bag with specified weight

SCG Plastics Company Limited / SCG Performance Chemicals Company Limited





Technical Datasheet

High Density Polyethylene  
for Monofilament and Flat Yarn

EL-Lene™

**H5480S**

### 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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