



Technical Data Sheet

Product Name
SCGC™ LLDPE

Product Type
Linear Low Density Polyethylene

Product Grade
L1810FI

Product Description

L1810FI is a butene LLDPE resin with high slip and antiblocking agent. It is recommended for water-quenched blown film for vegetable or fruit packaging with high clarity and good openability.

Typical Application

- Industrial bag
- Fruit & Vegetable bag
- Water-quench blown film

Product Characteristics

- High productivity
- Good optical properties
- Can be blended with LDPE
- Food contact applicable
- High dosage of slip and anti-block

International Compliance

- U.S FDA 21 CFR 177.1520
- Regulation (EU) No.10/2011
- Packaging and Packaging waste Directive 94/62/EC
- RoHS: Directive 2011/65/EC

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	1.00	g/10 min
Density	ASTM D 1505	0.921	g/cm ³
Melting Point	ASTM D 2117	122	°C
Vicat Softening Point	ASTM D 1525	102	°C
Brittleness Temperature	ASTM D 746	< - 70	°C
ESCR	ASTM D 1693 @ 50 °C (Condition B, Compression Molded, 25% Igepal)	> 1000	hrs, F ₅₀
Film Properties			
Tensile Strength at Yield	ASTM D 882	MD: 140*, TD: 100*	kg/cm ²
Tensile Strength at Break	ASTM D 882	MD: 470*, TD: 170*	kg/cm ²
Tensile Modulus, 2% Secant	ASTM D 882	MD: 2650*, TD: 2770*	kg/cm ²
Elongation at Break	ASTM D 882	MD: 1050*, TD: 810*	%
Elmendorf Tear Strength	ASTM D 1922	MD: 145*, TD: 370*	g
Dart Impact Strength	ASTM D 1709	130*	g
Haze	ASTM D 1003	17*	%
Gloss	ASTM D 2457	45*	%

Note: (*) Properties obtained from film produced on a pilot line at TPE, 38 micron, BUR 1.3:1, MD = Machine Direction, TD = Transverse Direction, cooling water temperature lower than 20 °C. Conversion factor for changing unit from kg/cm² to MPa is divided by 10.2

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Processing Guidelines

The actual extrusion condition depends on type of using machine, size and film thickness of product required. Generally, melt temperature should be 180-200 °C and BUR= 1.5:1 or 3:1 is recommended.

Product Technical Assistance

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

Product Available Form

- 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.
- 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.
- The storage area should be stable and not be slopped.

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