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	> 1000	hrs, F_{50}
	(Condition B, Compression Molded, 25% Igepal)		
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/cm^2 to MPa is divided by 10.2

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Published: March 2023

Manufacturer website: https://www.scgchemicals.com/en

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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.

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 Chemicals technical services.

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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 Chemicals technical services.

Related Documents

- The latest version of this document will be available at our website, www.scgchemicals.com, or can be obtained from the SCG Chemicals technical services.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
    - Material Safety Data Sheet.
    - Declaration of Compliance.

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.
- No liability can be accepted in respect of the use of the product in conjunction with other materials. The information contained herein relates exclusively to the product when it is not used in conjunction with any third party's materials

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