Technical Data Sheet

Product Name
SCGC™ HDPE

Product Type
High Density Polyethylene

Product Grade
H5480S

Product Description

SCGC™ HDPE H5480S is a high density polyethylene resin which is recommended for monofilament or flat yarn applications. It is specially designed for extrusion process both with spinneret die and T-die. H5480S offers good balance process ability and mechanical properties such as tenacity and elongation.

Typical Application

- Rope
- Agriculture net or Fishing net
- Sun shading
- Tarpaulin
- Woven sack

Product Characteristics

- Good process ability
- High tenacity
- Good product appearance

International Compliance

- Regulation (EU) No.10/2011
- Directive 2011/65/EU (RoHS)
- Regulation (EC) No.1907/2006 (REACH)
- Directive 94/62 EC on packaging and packaging waste PPWD
- U.S. FDA 21 CFR 177.1520

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	0.8	g/10 min
Density	ASTM D 1505	0.952	g/cm3
Melting Point	ASTM D 2117	131	°C
Vicat Softening Point	ASTM D 1525	126	°C
Brittleness Temperature	ASTM D 746	< -60	°C
Tensile Strength at Yield	ASTM D 638	270	kg/cm2
Tensile Strength at Break	ASTM D 638	390	kg/cm2
Elongation at Break	ASTM D 638	1200	%
Flexural Modulus	ASTM D 790	10,000	kg/cm2
Notched Izod Impact	ASTM D 256 @ 23 °C	167	J/m
ESCR	ASTM D 1693 @ 50 °C	30	Hrs, F50

Note:

- Conversion factor for changing unit from kg/cm^2 to MPa is divided by 10.20
- There results above are under SCGC's condition and method from specific sample, should be not used for representative to lot product qualities.

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

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Processing Guidelines

Recommended processing conditions:

Monofilament: Processing temperature around 200 – 270 °C, Stretching Temperature 95 – 105 °C, Stretching Ratio 8 - 12

Flat yarn: Processing temperature around 190 – 260 °C, Stretching Temperature 100 – 130 °C, Stretching Ratio 5 - 7

However, these conditions are only guideline for actual processing conditions should be adjusted case by case because it depends on machine type, screw configuration, product design and environment.

Product Technical Assistance

For technical assistance or further information on this product or any other SCG Chemicals' products, 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
- Sea bulk 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 unlabelled 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.
  - 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