Technical Data Sheet

Product Name
SCGC™ HDPE

Product Type
Natural HDPE for Solid Insulation

Product Grade
H512W

Product Description

SCGC HDPE H512W is a high density polyethylene for solid insulation in cable application. It is also suitable for outer skin in "foam-skin" constructions. It provides good performance across the full range of telecommunication insulation applications, including aircore and petroleum jelly filled cable designs in both buried and aerial environments.

Typical Application

- Solid insulation of communication cable

Product Characteristics

- Long-term insulation stability performance
- Good mechanical properties
- High extrusion speed

International Compliance

- ASTM D 1248 Type III, Class A, Category 3, Grade E8, E9*
- ISO 1872 – PE, KHKN, 50 – D006*

*SCGC HDPE H512W for insulation meets the following raw materials specifications

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	1.1	g/ 10 min
Density	ASTM D 1505	0.953	g/cm^3
Tensile Strength at Break	ASTM D 638 @ speed 50 mm/min	29	MPa
Elongation at Break	ASTM D 638 @ speed 50 mm/min	>800	%
Hardness (Shore D)	ASTM D 2240	62	-
ESCR	ASTM D 1693 (Method B, Compression Molded, 10% Igepal, 50 °C)	>1,000	Hours, F_0
Electrical Properties			
Dielectric Constant, 1 MHz	ASTM D 1531	2.1	-
Dissipation Factor, 1 MHz	ASTM D 1531	0.00051	-
DC Volume Resistivity	ASTM D 257	10^17	ohm.cm
Dielectric Strength	ASTM D 149	>40	kV/mm

Note: - The given values are typical value measured on the product. Values herein are not to be constructed as a product specification.

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

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Processing Guidelines

For extrusion of SCGC HDPE H512W, it is recommended to use with the screw giving good homogenization without excessive shear. Standard PE screws have proven satisfactorily which provide good result.

Recommended melt temperature is 220-280 ˚C using conductor preheats ranging from 110-140 ˚C.

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

- Natural pellet

Product Packaging

- 25 kg loose bag
- 25 kg bag on pallet
- 750 kg big bag

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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SCGC	**Technical Data Sheet**	Product Name **SCGC™ HDPE**
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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

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