



Technical Data Sheet

Product Name
SCGC™ MDPE

Product Type
SCGC™ MDPE

Product Grade
M600S

Product Description

SCGC™ MDPE M600S is a black medium density polyethylene compound for geomembrane application which requires excellent compatibility and well-dispersed carbon black to provide excellent weathering and UV resistance.

Typical Application

- Typical geomembrane application
- Landfill
- Pond liner
- Waste containment
- Liner for mining heap leach
- Tailing dams

Product Characteristics

- Good mechanical properties
- Excellent compatibility
- Well-dispersed carbon black

International Compliance

- Compliance with GRI GM13

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate at 190 °C and 2.16 kg	ASTM D 1238	0.20	g/10 min
Density	ASTM D 1505	0.939	g/cm ³
Density (Compound)	ASTM D 1505	0.949	g/cm ³
Carbon black content	ASTM D 4218	2.3	%wt
Tensile Strength at Yield	ASTM D 6693	35	kN/m
Elongation at Break	ASTM D 6693	870	%
Tear Resistance	ASTM D 1004	276	N
Puncture Resistance	ASTM D 4833	724	N
Stress Crack Resistance	ASTM D 5397	> 600	Hours
Oxidation Induction Time	ASTM D 3895	190	min
Standard OIT, Oven aging at 85°C ASTM D 5721 (%Retained after 90 days)	ASTM D 3895	70	%
High pressure OIT, UV resistance ASTM D 7238 (%Retained after 1600 hours)	ASTM D 5885	87	%

- Note:**
- The given values are typical value measured on the product. Values herein are not to be constructed as a product specification.
 - The given values are typical value measured on the product thickness average 2.0 mm with compressive mold specimen.

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Processing Guidelines

The actual processing conditions depend on each machine type, product dimensions, thickness and environment. It is recommended to use a screw giving good melting and mixing without excessive shear. Generally, melt temperature range should be 180-220°C. It is also recommended to have proper drying before using in order to acquire good product performance. If preheating and/or drying is used, the suitable condition is 80-95°C, 1-2 hours.

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

- Black pellet

Product Packaging

- 750 kg big bag

Storage

- Store in original container in tidy according to the manual of Handling and Storage from Thai Polyethylene Co., Ltd.
- 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.

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