



TECHNICAL DATA SHEET

Product Name

SCG HDPE

Product Type

Black HDPE Compound for Cable Jacketing

Product Grade

H678WC

Product Description

SCG HDPE H678WC is a black bimodal high density polyethylene compound for cable jacketing applications. It contains appropriate level of additives and well-dispersed carbon black to provide sufficient product performance with good weathering and UV resistance.

Typical Application

- Jacketing of fiber optic cables

Product Characteristics

- Fast extrusion speed
- Good surface appearance
- Good mechanical properties

International

- ASTM D 1248 Type III, Class C, Category 5, Grade J4, E9, W8*
- IEC 60708, IEC 60794*
- GB 15065

*SCG HDPE H678WC meets the following raw materials specifications

Physical Properties

Property	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	0.4	g/10 min
Density (Compound)	ASTM D 1505	0.963	g/cm ³
Tensile Strength at Yield	ASTM D 638 @ speed 50 mm/min	20	MPa
Tensile Strength at Break	ASTM D 638 @ speed 50 mm/min	23	MPa
Elongation at Break	ASTM D 638 @ speed 50 mm/min	>700	%
Hardness	ASTM D 2240	63	Shore D
ESCR (50°C, 10% Igepal, FO)	ASTM D 1693	>1,000	Hrs
Carbon Black Content	ASTM D 4218	2.5	%wt
Carbon Black Dispersion	ISO 18553	3	Rating
Oxidation Induction Time	ASTM D 3895 @ 200 °C	>70	min
Dielectric Constant, 1 MHz	ASTM D 1531	2.0	-
DC Volume Resistivity	ASTM D 257	6 x 10 ¹⁶	ohm.cm
Dielectric Strength	ASTM D149	25	kV/mm

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

SCG Performance Chemicals Co., Ltd.





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Processing Guidelines

For extrusion of SCG HDPE H678WC, It is recommended to use with the screw giving good homogenization without excessive shear. Standard PE screws have proven satisfactorily which provide good result. SCG HDPE H678WC is recommended to have proper drying before using in order to acquire good product performance. Recommended melt temperature is 190-230 °C. If preheating and/or drying is used, the suitable condition is 80-95 °C for 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 service at the address or telephone number as specified below.

Product Available Form

- Black 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/ Thai Polypropylene 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.
- SCG would not give warranty to bad storage conditions lead to quality deterioration and inadequate product performance. It is advisable to process PE compound within 6 months after delivery.

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