Technical Data Sheet

Product Name
SCGC™ HDPE

Product Type
PE100 Blue HDPE Compound

Product Grade
H1000PBL

Product Description

SCGC™ HDPE H1000PBL is a blue (no lighter than RAL 5005), trimodal, high density polyethylene compound that is specially designed for water pressure pipe, especially for drinking water pipe. SCGC™ HDPE H1000PBL is designed as PE100 pipe providing excellent in mechanical properties, and processablitiy. Well dispersed UV stabilizer and anti-oxidant which also provide outstanding UV resistance and high thermal stability for long term using.

Typical Application

- Drinking water pipes
- Stripe and jacketing for PE100 pipe

Product Characteristics

- Good process ability
- Good weathering resistance
- Outstanding mechanical strength
- Resistance to rapid crack propagation

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate at 190 °C and 5.0 kg	ISO 1133	0.18	g/10 min
Density	ISO 1183	0.950 (compound)	g/cm³
Tensile Strength at Yield (100 mm/min)	ISO 527	23	MPa
Tensile Strength at Break (100 mm/min)	ISO 527	> 30	MPa
Elongation at Break (100 mm/min)	ISO 527	> 600	%
Oxidative induction time at 210°C	ISO 11357	> 20	min
Pigment dispersion	ISO 18553	< 3	Rating
Flexural Modulus	ASTM D 790	1000	MPa
MRS classification	ISO 12162/ISO 9080	10	MPa
Resistance to slow crack growth at 80°C	ISO 13479	> 500	hrs
Rapid crack propagation Pc, S4	ISO 13477	> 10	bar

Note:
- The given values are typical value measured on the product. Values herein are not to be constructed as a product specification.
- Conversion factor for changing unit from kg/cm^2 to MPa is divided by 10.20.

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Processing Guidelines

For extrusion of SCGC HDPE H1000PBL, it is recommended to use a screw giving good melting and mixing without excessive shear. A single or double flight PE screws have proven satisfactory and will be used with good result. For normal extrusion equipment, we suggest a melt temperature of 200 – 220 °C, and drying 80 – 90 °C for 1 - 2 hours before use.

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 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.