



Technical Data Sheet

Product Type

High Density Polyethylene

Product Name

SCGC™ HDPE

Product Grade

H5814J

Product Description

SCGC™ HDPE H5814J™ is a general purpose high density polyethylene resin suitable for using in injection molding process. This good flow ability grade designed for high productivity with good toughness product.

Typical Application

- General injection parts
- Household product
- Bottle cap and closure
- Toy

Product Characteristics

- Good process ability
- Good impact resistance
- Food contact applicable

International Compliance

- U.S. FDA 21 CFR 177.1520
- Regulation(EU) No.10/2011
- Directive 94/62/EC
- RoHS Directive 2011/65/EU (RoHS 2)
- REACH Regulation (EC) No.1907/2006
- Safety of toys EN 71-3

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	14	g/10 min
Density	ASTM D 1505	0.958	g/cm ³
Tensile Strength at Yield	ASTM D 638	280	kg/cm ²
Tensile Strength at Break	ASTM D 638	180	kg/cm ²
Elongation at Break	ASTM D 638	620	%
Flexural Modulus	ASTM D 790	12,500	kg/cm ²
Notched Izod Impact	ASTM D 256 @ 23°C	29.4	J/m
Hardness	ASTM D 2240	65	Shore D
ESCR	ASTM D 1693 @ 50°C (Condition B, Compression Molded, 25% Igepal)	2	hrs, F ₅₀
Melting Point	ASTM D 2117	131	°C
Vicat Softening Point	ASTM D 1525	122	°C
Heat Deflection Temperature (HDT)	ASTM D 648 @4.6 kg/cm ²	75	°C
% Shrinkage (2mmt) MD	TPE Method	1.6	%
TD	TPE Method	1.77	%
Flammability	UL - 94	HB	-

Note:

- Conversion factor for changing unit from kg/cm² to MPa is divided by 10.20
- 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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Processing Guidelines

The actual processing conditions depend on each machine type, product size, mold design and environment.

Recommended processing conditions:

Melt temperature: 200-250 °C

Mold temperature: 20-60 °C

Injection speed: Fast

Screw speed 40-70 rpm

Pressure: Injection 30-70%,

Packing and Holding 30-50%,

Back 10% of Max. Pressure

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.

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