Technical Data Sheet

Product Name
SCGC™ PP

Product Type
Polypropylene Resin

Product Grade
P401S

Product Description

SCGC™ PP P401S is a homopolymer polypropylene resin which is specially designed for flat yarn or raffia products and monofilament application as well. SCGC™ PP P401S offers good features for Flat Yarn application as consistency process ability and high mechanical properties.

Typical Application

- Woven bags
- Flexible Intermediate Bulk Containers
- Ropes & twines
- Geotextiles
- Tarpaulin
- Sheet & Thermoforming

Product Characteristics

- Good process ability
- Excellent mechanical properties
- Food contact applicable
- Microwavable for reheating food container

International Compliance

- U.S. FDA 21 CFR 177.1520
- Regulation (EU) No.10/2011
- Regulation (EC) No.1907/2006 (REACH)
- RoHS Direction 2011/65/EU

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 230 °C, 2.16 kg	2.5	g/10 min
Density	ASTM D 1505	0.91	g/cm^3
Melting Point	ASTM D 2117	163	°C
Vicat Softening Point	ASTM D 1525	155	°C
Heat Deflection Temperature (HDT)	ASTM D 648 @ 4.6 kg/cm^2	110	°C
Tensile Strength at Yield	ASTM D 638	350	kg/cm^2
Tensile Strength at Break	ASTM D 638	230	kg/cm^2
Elongation at Break	ASTM D 638	650	%
Flexural Modulus	ASTM D 790	15500	kg/cm^2
Notched Izod Impact	ASTM D 256 @ 23 °C	40	J/m
Haze	ASTM D 1003	50	%
Gloss	ASTM D 2457	65	%

Note:

- Conversion factor for changing unit from kg/cm^2 to MPa is divided by 10.20.
- There results above are under SCGC's condition and method from specific sample, should be not used for representative to lot product qualities.

Thai Polyethylene Co., Ltd.
1 Siam Cement Road, Bangsue, Bangkok, 10800 Thailand
E-mail: general_plastics@scg.com

Published: March 2023

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

Technical Data Sheet	Product Name SCGC™ PP
Product Type Polypropylene Resin	Product Grade P401S

Processing Guidelines

Recommended processing conditions:

Flat yarn: Processing temperature around 190 – 260 °C, Stretching Temperature 140 – 160 °C, Stretching Ratio 5 - 7

Monofilament: Processing temperature around 250 – 280 °C, Stretching Temperature 95 – 105 °C, Stretching Ratio 8 – 12

However, these conditions are only guideline for actual processing conditions should be adjusted case by case because it depends on machine type, screw configuration, product design and environment.

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 or telephone number 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.

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.

Thai Polyethylene Co., Ltd.
1 Siam Cement Road, Bangsue, Bangkok, 10800 Thailand
E-mail: general_plastics@scg.com

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

SCGC	**Technical Data Sheet**	Product Name **SCGC™ PP**
	Product Type **Polypropylene Resin**	Product Grade **P401S**

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

Thai Polyethylene Co., Ltd.
1 Siam Cement Road, Bangsue, Bangkok, 10800 Thailand
E-mail: general_plastics@scg.com

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