SCGC

MEDICAL
& WELLBEING

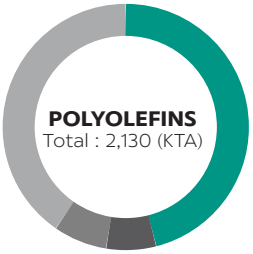
About SCG Chemicals or SCGC

SCG Chemicals or SCGC is one of the leader in sustainable chemical innovations and manufacturing in Thailand and ASEAN that offers a full range of petrochemical products ranging from upstream production of olefins to downstream production of 3 main plastics resins: polyethylene, polypropylene, and polyvinyl chloride including finished products.

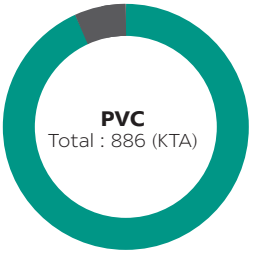
SCGC is committed to conducting business in line with Environmental, Social, and Governance (ESG) and achieving Sustainable Development Goals (SDGs). SCGC is developing new technology and innovation to create high value added products (HVA) and holistic service solutions concerning growing areas such as circular economy, medical & healthcare, and electric vehicle (EV) to better meet diverse places and emphasis demands sustainable environmental stewardship.

OUR PRODUCTION CAPACITY (AS OF 2021)

TOTAL CAPACITY : 3,016 KTA (PE / PP / PVC)



HDPE	980 KTA
LLDPE	140 KTA
LDPE	150 KTA
PP	860 KTA



PVC	850 KTA
PVC Paste	36 KTA

ESG Strategic Directions

"INNOVATION THAT'S REAL"

MEDICAL & WELLBEING

SCGC is committed to developing high quality medical-grade polymer to satisfy the demands of the healthcare industry, and providing professional with right tools to best care for their patients.

In the healthcare industry, medical-grade polymers are essential, being used in various medical instruments and devices. Whilst hygiene remains the most important factor for medical equipment, chronic diseases have contributed to a growing demand for disposable devices and an aging society demands better homecare medical equipment. To satisfy the changing demands, manufacturers of medical equipment need materials that can resistant to temperature, chemicals, and corrosion while being versatile enough to handle different healthcare applications.

SCGC provides medical resins designed exclusively for medical, healthcare, and pharmaceutical applications. Our PVC resins have excellent thermal stability and low content of impurities, making them highly suitable for use in medical films, sheets, and flexible medical equipment. In addition, our polypropylene resins are transparent and offer high stiffness, perfectly suitable for use in disposable medical equipment.

With plastic being increasingly used in medical equipment, SCGC is committed to developing high quality medical-grade polymers to satisfy the demands of the healthcare industry, ensuring that manufacturers have access to the best materials needed to create the tools medical professionals need to provide the best care for their patients.

With sustainability at the core of our business, SCG is passionately committed to improving people's lives and protecting the world for future generations.

Design for Sustainability

HOME-CARE
MEDICAL EQUIPMENT

SM58S/SM61S	
Characteristics	- Excellent thermal stability - Low content of impurities
Applications	- Rigid and semi-rigid medical sheets - Molded medical devices (connectors, wings, caps, chambers, etc.)

SM66E/SM71S/SM76E	
Characteristics	- Good thermal stability - Low content of impurities - Very low fisheye - Odorless - Good mechanical performance
Applications	- Flexible medical films and sheets - Flexible medical devices such as nasal tubes, blood tubes, and blood bags

SM80S/SM84E	
Characteristics	- Good thermal stability - Low content of impurities - Very low fisheye - Excellent mechanical performance
Applications	- Flexible medical films and sheets - Flexible medical devices such as nasal tubes, blood tubes, blood bags, and main tubes

DISPOSABLE
MEDICAL DEVICES

P704JM	
Characteristics	- Medium flow - High stiffness - High transparency
Applications	- Needle caps, needle hubs, syringe barrels, and medical components - Laboratory devices and packaging - Contact lens mold shells

P809JM	
Characteristics	- High flow - High stiffness - High transparency
Applications	- Syringe barrels and medical components - Laboratory devices and packaging - Hemodialyzers

P655IM	
Characteristics	- Designed for pharmaceutical packaging - Excellent processing for ISBM processes - Good impact resistance and stiffness - Good transparency
Applications	- Injection Stretched Blow Molding (ISBM) for pharmaceutical and saline solution packaging

SCGC™ PVC:
Medical Resins

SCGC offers a variety of PVC suspension resins with various molecular weights, or “K Values,” which serve as raw materials for a wide range of PVC products.

We are committed to working closely with our customers to develop products with new products applications to satisfy our customers’ specific needs, reduce costs, and ensure maximum efficiency and effectiveness.

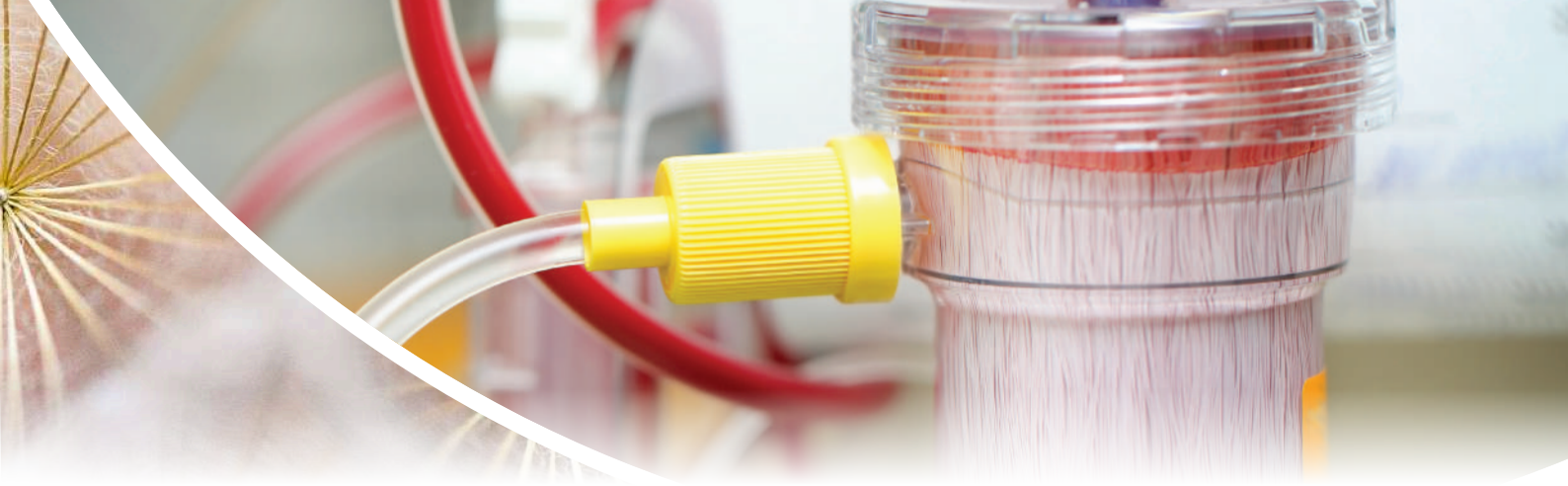
Rigid Applications		
GRADE	**SM58S**	**SM61S**
K Value [-]	58.3	61.2
Apparent bulk density [g/ml]	0.57	0.57
Volatile matter [%]	0.1	0.1
Sieve analysis, retained on 250 micron [%]	0.1	0.1
Sieve analysis, retained on 75 micron [%]	94.1	94.8
Impurity and foreign matter [Points/100g]	2	2
Residual Vinyl Chloride Monomer [ppm]	0.3	0.2
Fish eye [Point/150 cm^2]	2	2
Elution test [-]	Passed	Passed
Key characteristics	- Excellent thermal stability - Low content of impurities	- Good thermal stability - Low content of impurities
Recommended applications	- Rigid and semi-rigid medical sheets - Molded medical devices (connectors, wings, caps, chambers, etc.)	- Rigid and semi-rigid medical sheets - Molded medical devices (connectors, wings, caps, chambers, etc.)

Remark: Typical values only

SCGC™ PVC:
Medical Resins

Soft Applications		
GRADE	**SM66E**	**SM71S**
K Value [-]	66	71.2
Apparent bulk density [g/ml]	0.53	0.50
Volatile matter [%]	0.1	0.1
Sieve analysis, retained on 250 micron [%]	0.1	0.1
Sieve analysis, retained on 75 micron [%]	97.8	98.1
Impurity and foreign matter [Points/100g]	3	2
Residual Vinyl Chloride Monomer [ppm]	0.2	0.1
Fish eye [Point/150 cm^2]	1	1
Elution test [-]	Passed	Passed
Key characteristics	- Good thermal stability - Low content of impurities - Very low fish eye	- Good thermal stability - Low content of impurities - Very low fish eye - Odorless - Good mechanical performance
Recommended applications	- Flexible medical films and sheets - Flexible medical devices such as nasal tubes, blood tubes, and blood bags	- Flexible medical films and sheets - Flexible medical devices such as nasal tubes, blood tubes, and blood bags

Remark: Typical values only



Soft Applications		
SM76E	**SM80S**	**SM84E**
76.8	79.2	85.2
0.47	0.48	0.48
0.1	0.1	0.1
0.1	0.1	0.1
97.2	98.4	97.6
3	2	4
0.3	0.2	0.1
1	2	1
Passed	Passed	Passed
- Good thermal stability - Low content of impurities - Very low fish eye - Excellent mechanical performance	- Good thermal stability - Low content of impurities - Very low fish eye - Excellent mechanical performance	- Good thermal stability - Low content of impurities - Very low fish eye - Excellent mechanical performance
- Flexible medical films and sheets - Flexible medical devices such as nasal tubes, blood tubes, and blood bags	- Flexible medical films and sheets - Flexible medical devices such as nasal tubes, blood tubes, and blood bags	- Flexible medical films and sheets - Flexible medical devices such as main tubes and pump tubes

SCGC™ PP:
Medical Resins
PP Homopolymer Resins

GRADE	P704JM	P705JM	P809JM
MFR @ 23°C, 2.16 kg. (g/10 min) ASTM D1238	12	12	30
Flexural modulus (kg/cm^2) ASTM D790	15,000	14,500	18,000
Notched IZOD Impact @ 23°C (J/m) ASTM D256	34	29	30
Haze (%) ASTM D1003	20	47	25
European Pharmacopeia	3.1.6	3.1.6	3.1.6
United States Pharmacopeia	USP Class VI	USP Class VI	USP Class VI
Sterilization type	Ethylene Oxide (ETO) / Autoclave	Ethylene Oxide (ETO) / Autoclave	Ethylene Oxide (ETO) / Autoclave
Key characteristics	- Medium flow - High stiffness - High transparency - Nucleated	- Medium flow - High stiffness	- High flow - High stiffness - High transparency - Nucleated
Recommended applications	- Needle cap, needle hub, syringe barrel and medical components - Laboratory devices and packaging - Contact lens mold shell	- Needle hub, caps and medical components - Laboratory devices and packaging - Contact lens mold shell	- Syringe barrel and medical components - Laboratory devices and packaging - Hemodialyzer

Remark: Typical values only

SCGC™ PP:
Medical Resins
PP Random Copolymer Resins

GRADE	P655IM
MFR @ 23°C, 2.16 kg. (g/10 min) ASTM D1238	7
Flexural modulus (kg/cm^2) ASTM D790	9,000
Notched IZOD Impact @ 23°C (J/m) ASTM D256	69
European Pharmacopeia	3.1.6
United States Pharmacopeia	USP Class VI
DMF no.	25971
Sterilization type	Ethylene Oxide (ETO) / Autoclave
Key characteristics	- Designed for pharmaceutical packaging - Excellent processing for ISBM process - Good impact resistance and stiffness - Good transparency
Recommended applications	- Injection Stretched Blow Molding (ISBM) for pharmaceutical and saline solution packaging

Remark: Typical values only

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Disclaimer:

- The applications specified 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.
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