SCGC

PVC RESINS

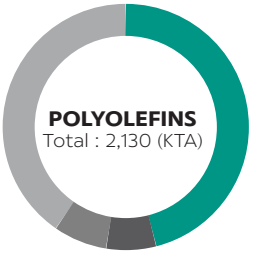
About SCG Chemicals or SCGC

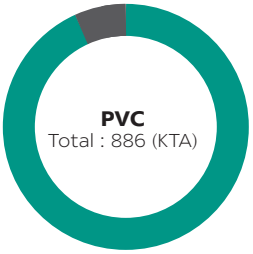
SCG Chemicals or SCGC is one of the leader in sustainable chemical innovations and manufacturing in Thailand and ASEAN that offers a full range of petrochemical products ranging from upstream production of olefins to downstream production of 3 main plastics resins: polyethylene, polypropylene, and polyvinyl 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	PVC	850 KTA
LLDPE	140 KTA	PVC Paste	36 KTA
LDPE	150 KTA		
PP	860 KTA		

ESG Strategic Directions

"INNOVATION THAT'S REAL"

PVC RESINS

SCGC™ PVC resins have high purity, enabling better manufacturing productivity and less defects for a variety of products, which contributes to energy and resource efficiency for a better world.

With sustainability becoming a trending topic worldwide, both manufacturers and consumers have become ever more adamant about looking for products that are not only durable and safe, but also environmentally friendly.

To this end, the use of polyvinyl chloride (PVC) resins has come to public attention, especially since its adaptive properties and processability are used to produce a wide variety of products.

Proactive on such environmental concerns, as an industry leader, SCGC has developed SCGC™ PVC resins made with an advanced suspension polymerization process, making it completely recyclable and environmentally friendly. SCGC™ PVC resins come in various molecular weights, or 'K values,' suitable for use as raw materials in a wide range of production processes. Manufacturers can choose from a variety of grades of SCGC™ PVC resins with different K values and select suitable additives to be added to the mix to satisfy their specific requirements and safety standards. These high-quality, recyclable resins have high purity, enabling better manufacturing productivity and less defects for a variety of products, which contributes to energy and resource efficiency for a better world.

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

Design for Sustainability

PVC RESINS
SCGC™ POLYVINYL CHLORIDE (PVC)

SG760	
Key characteristics	- Good thermal stability, initial coloration, and electrical resistance - Excellent mechanical performance, plasticizer absorption, and drying abilities - Low fisheye effects and impurities
Recommended applications	Flexible sheet packaging, artificial leathers, inflatable toys, automotive parts, hoses, wires and cables, sandals, and gear knobs

SG800	
Key characteristics	- Good thermal stability, initial coloration, and electrical resistance - Excellent mechanical performance, plasticizer absorption, and drying abilities - Low fisheye effects, impurities, and compression sets - Rubber-like elasticity - Improved fatigue and abrasion resistance
Recommended applications	Flexible sheet packaging, artificial leathers, inflatable toys, automotive parts, hoses, wires and cables, sandals, shoe soles, and gear knobs

SPECIAL GRADE PVC RESINS
Low & High K Value Series

Our PVC resins with low K values exhibit faster fusion behavior, a high melt flow rate (MFR), and low contamination levels. High K value PVC resins exhibit excellent plasticizer absorption, drying abilities, high strength and elasticity, and excellent mechanical performance in finished products.

GRADE	SG500	SG730	SG760	SG800	SG840
K value (-)	49.3	73.7	76.8	79.2	85.2
Apparent bulk density (g/ml)	0.58	0.48	0.47	0.48	0.48
Volatile matter (%)	0.2	0.1	0.1	0.1	0.1
Sleve analysis, retained at 250 microns (%)	0.1	0.1	0.1	0.1	0.1
Sleve analysis, retained at 75 microns (%)	95.4	95.6	97.2	98.4	97.6
Impurities and foreign matter (Points/100g)	12	5	3	2	3
Residual vinyl chloride monomers (ppm)	0.3	0.2	0.3	0.2	0.1
Fisheye (Point/150 cm^2)	9	3	2	2	1
Volume resistivity (Ohm-cm)	-	4.2×10^{13}	4.8×10^{13}	4.1×10^{13}	4.4×10^{13}
Key characteristics	- Excellent fusion properties - High flowability - Excellent processability - Good thermal stability	- Good thermal stability - Good initial coloration - Good electrical resistance - Good mechanical performance	- Good thermal stability - Good initial coloration - Good electrical resistance - Excellent mechanical performance - Excellent plasticizer absorption and drying abilities - Low fisheye - Low impurities	- Good thermal stability and initial coloration - Good electrical resistance - Excellent mechanical performance - Excellent plasticizer absorption and drying abilities - Low compression setting - Rubber-like elasticity - Long-term resistance to high and low temperatures - Improved fatigue and abrasion resistance - Low fisheye and impurities	
Recommended applications	- Adhesives - Floor tiles - Fittings - Rigid injection products	- Flexible sheet packaging - Products requiring high strength and thermal stability, such as wires and cables, wire harnesses, and electrical tapes	- Products requiring strong flexible sheets such as mats, covers, flexible sheet packaging, artificial leathers, and inflatable toys - Products requiring high strength, abrasive resistance, and flexibility such as automotive parts, hoses, and shoes - Products requiring high strength and thermal stability, such as wire and cables, wire harnesses, and electrical tapes - Products requiring high elasticity, such as loops, sandals, gear knobs, and brushes		

Remark: Typical values only

SPECIAL GRADE PVC RESINS
Non-Bisphenol A Series

Our Non-Bisphenol A Series have good fisheye properties and initial coloration, thermal stability, and low contamination levels.

GRADE	SG58J	SG61J	SG66J	SP66J	SG71J
K value (-)	58.2	61.0	66.1	65.5	71.5
Apparent bulk density (g/ml)	0.58	0.58	0.56	0.56	0.49
Volatile matter (%)	0.1	0.1	0.1	0.1	0.1
Sleve analysis, retained at 250 microns (%)	0.1	0.1	0.1	0.3	0.1
Sleve analysis, retained at 75 microns (%)	94.1	94.8	97.0	97.8	98.5
Impurities and foreign matter (Points/100g)	2	4	3	8	3
Residual vinyl chloride monomers (ppm)	0.3	0.3	0.3	0.2	0.3
Volume resistivity (Ohm-cm)	-	1.0×10^{13}	4.3×10^{13}	-	4.7×10^{13}
Key characteristics	- Excellent fusion properties - Good thermal stability - Good initial coloration - Low impurities	- Good thermal stability - Good initial coloration - Low impurities	- Good thermal stability - Good initial coloration - Good electrical resistance - Low impurities	- High bulk density - Good flowability - Good thermal stability	- Good thermal stability - Good initial coloration - Good electrical resistance - Good mechanical performance - Low impurities
Recommended applications	- Rigid sheet packaging - Credit cards - Blister packs - Shrink films - Bottle and IC tubes - Furniture trimmings - Construction profiles	- Rigid sheet packaging - Credit cards - Blister packs - Shrink films - Stickers and decorative sheets - Furniture trimmings - Electrical plugs - Shoes - Toys - Construction profiles	- Flexible sheet packaging - Stickers and decorative sheets - Curtains - Shrink films - Wrap and cling films - Furniture trimmings - Electrical wires and cables - Hoses - Shoes - Toys	- Pipes - Door and window frames - Construction profiles	- Rigid sheet packaging - Artificial leather - Infatable toys - Wrap and cling films - Automotive parts - Electrical tapes - Electrical wires and cables - Wire harnesses - Gaskets - Hoses

Remark: Typical values only

SPECIAL GRADE PVC RESINS
Z Series

Our unique Z Series PVC resins have extremely low fisheye counts, excellent initial colorations, good thermal stability, high transparency, and low contamination levels.

GRADE	SG66Z	SG71Z
K value (-)	66.0	71.1
Apparent bulk density (g/ml)	0.53	0.50
Volatile matter (%)	0.1	0.1
Sleve analysis, retained at 250 microns (%)	0.1	0.1
Sleve analysis, retained at 75 microns (%)	97.8	98.1
Impurities and foreign matter (Points/100g)	3	2
Residual vinyl chloride monomers (ppm)	0.2	0.1
Fisheye (Point/150 cm^2)	3	2
Volume resistivity (Ohm-cm)	4.4×10^{13}	4.7×10^{13}
Key characteristics	- Good thermal stability - Good initial coloration - Good electrical resistance - Excellent plasticizer absorption and drying abilities - Very low fisheye	- Good thermal stability - Good initial coloration - Good electrical resistance - Good mechanical performance - Excellent plasticizer absorption and drying abilities - Very low fisheye - Low impurities
Recommended applications	- Flexible sheet packaging - Stickers and decorative sheets - Electrical wires and cables - Shrink films - Wrap and cling films - Soft-touch extrusion profiles	- Flexible sheet packaging - Wrap and cling films - Automotive parts - Electrical tapes - Electrical wires and cables - Wire harnesses - Soft-touch extrusion profiles - Gaskets

Remark: Typical values only

SPECIAL GRADE PVC RESINS
High Flow Series

Our High Flow Series PVC resins exhibit high melt flow rates and faster fusion properties, enabling easier polymer flow into injection molds and homogenous mixtures in extruders before the die-casting process. As PVC resins that truly improves manufacturing productivity, the High Flow Series is also known for its reduction of defective products.

GRADE	SF581	SP661
K value (-)	56.7	63.8
Apparent bulk density (g/ml)	0.57	0.58
Volatile matter (%)	0.1	0.1
Sleve analysis, retained at 250 microns (%)	0.1	0.3
Sleve analysis, retained at 75 microns (%)	95.7	97.8
Impurities and foreign matter (Points/100g)	10	8
Residual vinyl chloride monomers (ppm)	0.4	0.3
Key characteristics	- Excellent fusion properties - High flowability - Excellent processability - Good thermal stability	- Excellent fusion properties - High bulk density - High flowability - Excellent processability - Good thermal stability
Recommended applications	- Fittings - Rigid injection products - Construction profiles	- Pipes - Door and window frames - Construction profiles

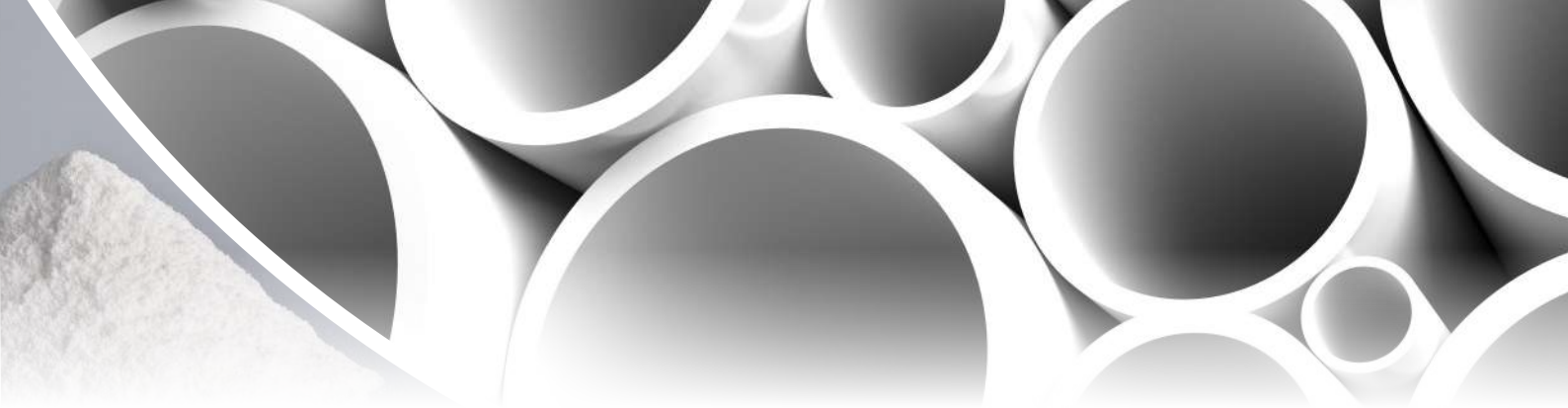
Remark: Typical values only

GENERAL GRADE
PVC Resins

Our PVC resins are produced via a suspension polymerization process, while providing powder and free flow resins that can contain quality of additives with standard mixing techniques. These resins are suitable for general purpose products and a wide range of other applications.

GRADE	SF580	SG580	SG610
K value (-)	58.1	58.2	61.0
Apparent bulk density (g/ml)	0.57	0.57	0.58
Volatile matter (%)	0.1	0.1	0.1
Sleve analysis, retained at 250 microns (%)	0.1	0.1	0.1
Sleve analysis, retained at 75 microns (%)	94.9	95.1	94.8
Impurities and foreign matter (Points/100g)	10	3	4
Residual vinyl chloride monomers (ppm)	0.4	0.3	0.3
Volume resistivity (Ohm-cm)	-	-	1.0×10^{13}
Key characteristics	- Excellent fusion properties - Good thermal stability	- Excellent fusion properties - Good thermal stability - Good initial coloration	- Good thermal stability - Good initial coloration
Recommended applications	- Adhesives - Fittings - Rigid injection products	- Rigid sheet packaging - Stationery - Credit cards - Furniture trimmings - Construction profiles	- Rigid sheet packaging - Stationery - Credit cards - Floor coverings - Stickers and decorative sheets - Floor tiles - Furniture trimmings - Construction profiles - Electrical plugs

Remark: Typical values only



SG660	SP660	SG710
66.0	65.5	71.3
0.55	0.56	0.49
0.1	0.1	0.1
0.1	0.3	0.3
97.9	97.8	97.9
5	8	5
0.3	0.2	0.1
3.8×10^{13}	-	4.8×10^{13}
- Good thermal stability - Good initial coloration - Good electrical resistance	- High bulk density - Good flow ability - Good thermal stability	- Good thermal stability - Good initial coloration - Good electrical resistance - Good mechanical performance
- Flexible sheet packaging - Curtains - Floor coverings - Furniture trimmings - Electrical wires and cables - Hoses - Shoes	- Pipes - Rigid extrusion parts	- Flexible sheet packaging - Artificial leather - Infatable toys - Automotive parts - Electrical tapes - Electrical wires and cables - Wire harnesses - Gaskets - Hoses

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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.
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