

ROTATIONAL MOLDING





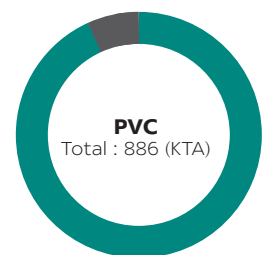
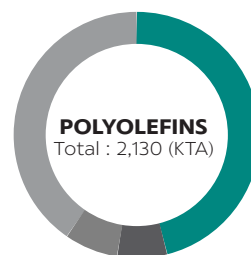
About SCG Chemicals or SCGC

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”





ROTATIONAL MOLDING

SCGC has developed innovative resins and compounds for a diverse range of uses, focusing on user's benefit along with environment impact.

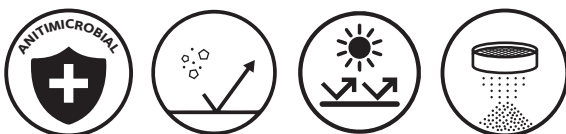
Today, consumer behaviors and trends are changing faster than ever. People are increasingly concerned about health, well-being, and environmental issues. To satisfy these new market demands, SCGC has developed innovative resins and compounds for a diverse range of uses. As the leading manufacturer of linear low-density polyethylene (LLDPE) resins and compounder of materials for rotational molding applications, SCGC offers high quality products with superior fit for today's market.

SCGC's superior production expertise enables our rotational molding compounds to be processed into various applications with exceptional strength and durability. To meet functional requirements, compounds can be formed with anti-microbial or

Anti-static properties. Opacity levels, durability, and UV-resistance can also be fine-tuned. Moreover, compounds come in a variety of colors and different special effects, making sharp aesthetic designs possible.

SCGC's certified food grade compounds contain no toxic heavy metals, suitable for hygienic applications especially household water tanks. Furthermore, these compounds are completely recyclable, and able to be mixed in with post-consumer resins (PCR) from other sources to form new products.

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



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Design for Sustainability

3 GOOD HEALTH
AND WELL-BEING



6 CLEAN WATER
AND SANITATION



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



17 PARTNERSHIPS
FOR THE GOALS





BETTER MATERIAL FOR BETTER WORLD



Reduce Rejected Rate Production-efficient

M72	
Characteristics	<ul style="list-style-type: none"> - Exceptional powder flowability for intricate parts - No pinholes - Superior gloss and smooth finishing surface
Application	Cooler boxes



Reduce Production Steps Less CO₂ emissions

S15	
Characteristics	<ul style="list-style-type: none"> - Low shrinkage and warpage - Consistent dimensions - UV stabilized for indoor and semi-outdoor use - Strong adhesion to PU foam
Application	Cooler boxes



Reduce Cycle Time Energy-efficient

M50/M53	
Characteristics	<ul style="list-style-type: none"> - Excellent ESCR - Good chemical resistance - TÜV-approved - High impact resistance - Low warpage
Application	Fuel tanks



SUPERIOR PERFORMANCE



PE Foam

XC1252B (4X-8X)

Characteristics	- Customized expansion up to 8 times
	- Thermal & Sound insulation
Application	- Light weight
	- High stiffness
Insulated boxes, Multi-layer applications	

Super Linear HDPE compound

3985

Characteristics	- Excellent stiffness : 30% higher than MDPE
	- Excellent impact strength
Application	- Fast cycle time and excellent flow
	- Wide processing window
Kayak	



XLPE Crosslink

1507BKAP

Characteristics	- High temperature service 60°C
	- High stiffness/impact resistance
Application	- Chemical Resistance
	Fuel tanks





SCGC™

Rotational Molding Products

GRADE	M3804RU	M3804RW	M10	M9001RW	M90
Natural Pellet	✓	✓		✓	
Natural Powder	✓	✓		✓	
Color Compound			✓		✓
Density (g/10 cm³) ASTM D1505 (Non-Anneal)	0.938			0.939	
Melt index [g/10 min.aq] ASTM D1238 @190°C, 2.16 kg	4			3.2	
Flexural modulus kg/cm²(Mpa) ASTM D790	7,138 (700)			7,546 (740)	
Tensile strength at yield kg/cm²(Mpa) ASTM D638	203 (20)			214 (21)	
Elongation at break [%] ASTM D638	800			1,100	
ARM impact strength at -40°C [J/mm] ARM Method (5 mm part)	27			29	
UV level ASTM G155	2	8	8	20	20
Optimum PIAT* [°C] TPE Method**	180	220	220	200	200
Key characteristics	<ul style="list-style-type: none"> - High stiffness - Good impact resistance - Fast cooking - UV-stabilized (UV2) for indoor/ semi-indoor use 		<ul style="list-style-type: none"> - High stiffness - High thermal stability - Good impact resistance - High UV protection (UV8) for outdoor use 		<ul style="list-style-type: none"> - High stiffness - Excellent impact resistance - Long-lasting durability - Good processability - Meets AS/NZS 4766 requirements
Recommended applications	<ul style="list-style-type: none"> - Water tanks (<5,000 liter) - General purpose applications - Bins - Containers - Pallets 		<ul style="list-style-type: none"> - Water tanks (<5,000 liter) - General purpose applications - Intermediate bulk containers (IBC) 		<ul style="list-style-type: none"> - Medium to large water tanks (5,000 L-22,500 L) - Manholes - Septic tanks - Underground water tanks - Kayaks - Wheel barrow tray

Remarks: * Optimum PIAT (Peak Internal Temperature) may vary depending on color strength and molding conditions.
 ** Oven temperature 280°C, rotomolded part thickness 5 mm.
 Values quoted here are representative of tested specimens only. This data is not intended for specification purposes.
 For technical assistance, please contact SCGC representatives.
 All products are butene comonomers except for M3504DXP and M50, which are octene comonomers.
 *** Except black compound



GRADE	M2904RU	M3204RU	M30	M31	M40	M735RU	M735RW	M70
Natural Pellet	✓	✓				✓	✓	
Natural Powder	✓	✓				✓	✓	
Color Compound			✓	✓	✓			✓
Density (g/10 cm ³) ASTM D1505 (Non-Anneal)	0.929	0.932				0.932		
Melt index [g/10 min.aq] ASTM D1238 @190°C, 2.16 kg	4.2	4				6		
Flexural modulus kg/cm ² (Mpa) ASTM D790	4,385 (430)	5,812 (570)				5,812 (570)		
Tensile strength at yield kg/cm ² (Mpa) ASTM D638	143 (14)	173 (17)				173 (17)		
Elongation at break [%] ASTM D638	1,150	1,000				1,000		
ARM impact strength at -40°C [J/mm] ARM Method (5 mm part)	29	28				25		
UV level ASTM G155	2	2	2	2	8	4	8	8
Optimum PIAT* [°C] TPE Method**	190	180	210	190	190	200	210	210
Key characteristics	<ul style="list-style-type: none"> - High impact resistance - Low shrinkage and warpage - Consistent dimension - For indoor/ semi-outdoor use 	<ul style="list-style-type: none"> - Excellent impact resistance - Suitable for low temperature - Good processability - Low warpage - Good dimension tolerance 				<ul style="list-style-type: none"> - Suitable for intricate parts - Good impact resistance - Excellent surface finishes - Good dimension tolerance - Comply with flame class UL94 HB 		
Recommended applications	<ul style="list-style-type: none"> - Toys - Small containers 	<ul style="list-style-type: none"> - Cooler boxes - Playgrounds - Traffic Cones - Road Barriers 				<ul style="list-style-type: none"> - Decorative items: Flower pots, small toys - LED lamp covers - Automotive and transportation parts - Industrial parts - Cleaning machines - Air blowers 		



SCGC™

Rotational Molding Products

GRADE	M72	S15	3982P	3983 (Metallic Effect)	M1A (Anti-Bact)	M3B (Anti-Static)	M7B (Anti-Static)
Natural Pellet							
Natural Powder			✓				
Color Compound	✓	✓		✓	✓	✓	✓
Density (g/10 cm ³) ASTM D1505 (Non-Anneal)	0.932	0.932	0.954	0.939	0.938	0.932	0.932
Melt index [g/10 min.aq] ASTM D1238 @190°C, 2.16 kg	6	4	0.04	3.2	4	4	6
Flexural modulus kg/cm ² (Mpa) ASTM D790	5,812 (570)	5,506 (540)	-	7,546 (740)	7,138 (700)	5,812 (570)	5,812 (570)
Tensile strength at yield kg/cm ² (Mpa) ASTM D638	173 (17)	174 (17)	-	214 (21)	204 (20)	173 (17)	173 (17)
Elongation at break [%] ASTM D638	800	700	-	1,100	800	1,100	700
ARM impact strength at -40°C [J/mm] ARM Method (5 mm part)	25	N/A	-	29	27	28	25
UV level ASTM G155	4	2	-	20	8	2	8
Optimum PIAT* [°C] TPE Method**	200	190	-	200	215	210	210
Key characteristics	<ul style="list-style-type: none"> - Excellent powder flowability for intricate parts - Superior gloss and surface finish - No pinholes - Smooth inside surface 	<ul style="list-style-type: none"> - Low shrinkage and warpage - Consistent dimension - UV-stabilized (UV2) for indoor/semi-indoor - Self-adhere to Polyurethane foam (eliminate second-shot process) 	<ul style="list-style-type: none"> - Virgin materials - Enhance bonding between PE and PU foam - Free flow, high bulk density - Recyclable 	<ul style="list-style-type: none"> - High stiffness - High impact resistance - Long-lasting durability - Good processability - High UV protection for outdoor use 	<ul style="list-style-type: none"> - Possess anti-bacteria and anti-fungal capability according to JIS Z 2801:2000 - Nanosilver as an active ingredient - High stiffness - Good processability - High impact resistance 	<ul style="list-style-type: none"> - Reduce or eliminate a static build up - High impact resistance - Good processability - Good dimension tolerance - Low shrinkage and warpage - Consistent dimension 	<ul style="list-style-type: none"> - Reduce or eliminate a static build up - Suitable for intricate parts - Good impact resistance - Excellent surface finishes - Good dimension tolerance - Comply with flame class UL94 HB
Recommended applications	<ul style="list-style-type: none"> - Cooler boxes - Decorative itmes 	<ul style="list-style-type: none"> - Cooler Box - Dry Ice Box 	<ul style="list-style-type: none"> - Insulated container with PU foam - Cooler box with PU foam - Buoys with PU foam filled - Multi-layer (PE/PU) 	<ul style="list-style-type: none"> - Water storage tanks - Material handling containers - Decorative items 	<ul style="list-style-type: none"> - Water tank inner layer - Food storage container - Trash bins 	<ul style="list-style-type: none"> - Cooler boxes - Portable containers - Material handling containers - General purpose moulding - Fish bins 	<ul style="list-style-type: none"> - Lawn and garden articles - Decorative items - LED lamp covers - Small industrial parts - Intricate automotive articles

Remarks: *Depending on specific PU foam ratio and injection condition. Please contact SCGC technical service team to support the product instruction.



SPECIALTY APPLICATIONS

	OCTENE COMONOMER			CROSSLINKED (XLPE)	PE FOAM	
GRADE	M3504DXP	M50	M53	1507	XC1252B4	XC1252B6
Natural Pellet						
Natural Powder	✓				✓	✓
Color Compound		✓	✓	✓		
Density (g/10 cm ³) ASTM D1505 (Non-Anneal)	-	0.935	-	0.95	0.23	0.16
Melt index [g/10 min.aq] ASTM D1238 @190°C, 2.16 kg		4		-	-	-
Flexural modulus kg/cm ² (Mpa) ASTM D790		5,608 (550)		6,628 (650)	-	-
Tensile strength at yield kg/cm ² (Mpa) ASTM D638		173 (17)		204 (20)	-	-
Elongation at break [%] ASTM D638		1,000		900	-	-
ARM impact strength at -40°C [J/mm] ARM Method (5 mm part)		27		35	-	-
UV level ASTM G155	8	8	20	8	-	-
Optimum PIAT* [°C] TPE Method**	210	210	210	190-240	-	-
Key characteristics	<ul style="list-style-type: none"> - Excellent ESCR - Good chemical resistance - TÜV-approved - High impact resistance - Low warpage 			<ul style="list-style-type: none"> - Excellent ESCR - Excellent impact resistance - High toughness 	<ul style="list-style-type: none"> - Provide stiffness as reinforcement inner layer - Increase thickness without adding the weight - Fully recyclable - Decrease warpage on flat area 	
Recommended applications	<ul style="list-style-type: none"> - Fuel tanks - Intermediate bulk containers (IBC) - Pallets - Chemical tanks - Pesticide tanks - Liquid fertilizer tanks 			<ul style="list-style-type: none"> - Diesel fuel tanks - Hydraulic tanks - Chemicals tanks 	<ul style="list-style-type: none"> - Ocean buoys and floats - Insulated containers - Boat hulls - Pallets 	

SCGC™

HDPE

HDPE ROTO MOLDING				BLOWMOLDING	
GRADE	H400RW	S16	3985	GRADE	S800B
Natural Pellet	✓		✓	Natural Pellet	✓
Natural Powder	✓		✓	Natural Powder	
Color Compound		✓	✓	Color Compound	✓
Density (g/10 cm ³) ASTM D1505 (Non-Anneal)	0.940	0.945	0.950	Density (g/10 cm ³) ASTM D1505 (Non-Anneal)	0.949
Melt index [g/10 min.aq] ASTM D1238 @190°C, 2.16 kg	4	3.5	5	Melt index [g/10 min.aq] ASTM D1238 @190°C, 2.16 kg	0.19
Flexural modulus kg/cm ² (Mpa) ASTM D790	7138 (700)	9687 (950)	9,279 (910)	Flexural modulus kg/cm ² (Mpa) ASTM D790	10,000 (980)
Tensile strength at yield kg/cm ² (Mpa) ASTM D638	203 (20)	234 (23)	224 (22)	Tensile strength at yield kg/cm ² (Mpa) ISO 527 @ Crosshead speed 100 mm/min	234 (23)
Elongation at break [%] ASTM D638	800	1,100	1,160	Elongation at break [%] ISO 527 @ Crosshead speed 100 mm/min	700
ARM impact strength at -40°C [J/mm] ARM Method (5 mm part)	27	29	28	ESCR Hrs, F ₀	>10,000
UV level ASTM G155	8	8	8	UV level ASTM G155	No UV
Optimum PIAT* [°C] TPE Method**	220	220	200	Notched Izod Impact kg.cm/cm ASTM D 256 @ -20 °C	30
Key characteristics	<ul style="list-style-type: none"> - High stiffness - High thermal stability - Good impact strength - High UV protection (UV8) for outdoor use 	<ul style="list-style-type: none"> - Excellent stiffness - Superior rigidity - Good impact strength - High thermal stability - UV8 for outdoor use - Excellent color fastness 	<ul style="list-style-type: none"> - Excellent stiffness - High impact resistance - Fast cycle time - Excellent flow 	Key characteristics	<ul style="list-style-type: none"> - Excellent processing - High thermal stability - Outstanding mechanical strength
Recommended applications	<ul style="list-style-type: none"> - Water storage tanks - Small to medium tanks - Material handling equipment - Intermediate bulk containers (IBC) 	<ul style="list-style-type: none"> - Underground water tanks - Kayaks - Pallets - Manholes 	<ul style="list-style-type: none"> - Kayaks - Pallets - Underground tanks - Inspection pits 	Recommended applications	<ul style="list-style-type: none"> - Large Water Tanks (>1000 L) - IBC Tanks

CUSTOMIZED SOLUTIONS FOR YOU




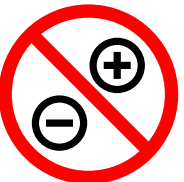






Plain Colors

 YLN9 LAGUNA YELLOW	 ORO8 VERMILION ORANGE	 SPM7 PINK PANTHER	 BLO5 ICEBERG BLUE	 GRM4 MAMBA GREEN	 GRU1 MIST GREEN	 GYM6 POSH GREY	 BRU8 BIRCH GREY	 WTT2 SMOKY WHITE	 WTN9 SNOW WHITE
 YLM9 TUSCANY YELLOW	 ORO4 SQUASH ORANGE	 VLM9 BABY LILAC	 BLM1 CYAN BLUE	 GRM1 HEALTH GREEN	 GRT1 WILD FERN	 GYW3 SHARK GREY	 GYN7 ENGINE GREY	 BRT6 MERINO	 WTM1 CREAMY WHITE
 YLO6 MUSTARD	 RDN4 VERMILION	 DBO4 STAINED GLASS BLUE	 BLN5 AZURE BLUE	 GRO6 LOCOMOTIVE GREEN	 GRT5 RIVERGUM GREEN	 GYV3 PIGEON GREY	 GYU8 STEEL	 BRT1 BEIGE	 WTN5 ROSE WHITE
 YLN7 BUMBLEBEE	 RDM8 SCARLET RED	 DBN7 NAUTICAL BLUE	 DBM1 BLUEBERRY	 GRQ7 PINE GREEN	 GRT3 HERITAGE GREEN	 GYV2 SLATE GREY	 GYT1 ASH	 BEM7 HAZELNUT BEIGE	

Special Effects

Stone								Metallic	Terracotta
 CRT1 FRENCH VANILLA	 SSM1 SAND MARBLE	 SLM1 SUNRISE	 SST3 PETRA GOLD	 GET2 GREEN TEA	 LLM1 LEMON LIME	 SST1 SANDSTONE	 MST2 GREY GRANITE		
 WMM1 WHITE MARBLE	 SST6 SAND BEACH	 VNT1 MORTAR GRANITE	 RST1 ROSETTA	 DET1 DARK EMERALD	 WNT1 LATERITE GRANITE	 MST1 MILLSTONE	 SOT1 SPARKLE OBSIDIAN		

*Actual colors may vary. For more details, please contact a SCGC representative.

Grinding Size (µm)	UV Levels	Anti-Microbial	Anti-Static	Post-Consumer Recycled Resin (PCR)	Collaboration from Design to Production
 1000	 20				
 710					
 600					
 500					
 425					



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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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