



**FLEXIBLE  
PACKAGING**



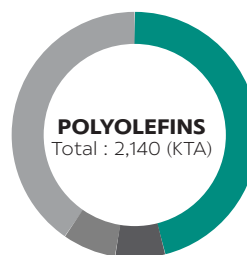
## About SCG Chemicals or SCGC

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.

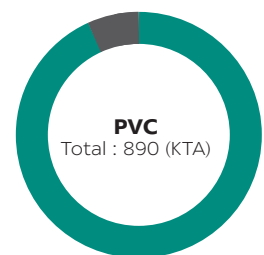
SCGC is committed to conducting business in line with Environmental, Social, and Governance (ESG) and achieving Sustainable Development Goals (SDGs). SCGC is developing new technology and innovation to create high value added products (HVA) and holistic service solutions concerning growing areas such 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 2025)

**TOTAL CAPACITY : 3,030 KTA** (PE / PP / PVC)



- HDPE 980 KTA
- LLDPE 140 KTA
- LDPE 160 KTA
- PP 860 KTA



- PVC 850 KTA
- PVC Paste 40 KTA

## ESG Strategic Directions



**“INNOVATION THAT’S REAL”**





# FLEXIBLE PACKAGING

**SCGC believes in being a part of environmental conservation efforts by creating sustainable packaging.**

SCGC is committed to delivering sustainable and high-performance flexible packaging solutions that meet the diverse needs of customers across industries.

With extensive expertise in polyethylene and polypropylene, SCGC offers a comprehensive portfolio of materials designed for flexible packaging and film applications. Our solutions are developed to ensure consistent quality, excellent processability, and reliable performance across a wide range of end uses.

Through continuous innovation, including our proprietary SMX™ Technology, SCGC enhances material efficiency by enabling packaging that is stronger, lighter, and more resource efficient while maintaining the performance customers trust.

Sustainability remains at the core of our approach. We actively support the development of recyclable and mono-material packaging solutions, working closely with partners across the value chain to contribute to a more circular packaging system.

With a strong foundation in polymer innovation and customer collaboration, SCGC continues to deliver flexible packaging solutions that balance performance, efficiency, and environmental responsibility.

## Design for Sustainability

<b>2</b> ZERO HUNGER 	<b>9</b> INDUSTRY INNOVATION AND INFRASTRUCTURE 	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 
<b>13</b> CLIMATE ACTION 		





## FILM APPLICATIONS

SCGC provides various kinds of polyethylene and polypropylene resins, which are produced with world-class technologies and suitable for general purpose film applications. Our HDPE resin has been produced by Mitsui Chemicals Inc. and SCGC own developed Multimodal SMX™ Technology, while LLDPE resin is produced by applying the gas phase process of INEOS Innovene-G and Unipol process by Univation Technology. And PP resin has been developed by Mitsui Chemicals Inc. of Japan.

We ensure our product quality with careful production control and high quality premium additives in order to completely serve customers' requirements worldwide.

### HDPE Resin

GRADE	F15	S199F
MFR (g/10min)	0.06	0.04
Density (g/cm <sup>3</sup> )	0.952	0.956
Tensile strength at break MD/TD (kg/cm <sup>2</sup> )	MD 900, TD 460	MD 770, TD 420
Tear strength MD/TD (g)	MD 4, TD 50	MD 8, TD 40
Dart drop impact (g)	> 180	280
Key characteristics	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- High tensile strength with good dart impact strength</li> <li>- Low gel content</li> <li>- Excellent printing</li> <li>- Good moisture barrier</li> </ul>	<ul style="list-style-type: none"> <li>- Excellent dart impact strength</li> <li>- Good tensile strength and stiffness</li> <li>- Good bubble stability</li> <li>- Low gel content</li> <li>- Good moisture barrier</li> </ul>
Recommended applications	<ul style="list-style-type: none"> <li>- General purpose film with high speed machine</li> <li>- Wide lay flat film product</li> <li>- T-shirt bag</li> <li>- PE-Glove</li> <li>- Liner bag, industrial bag</li> </ul>	<ul style="list-style-type: none"> <li>- General purpose film that need high impact strength</li> <li>- Garbage bag</li> <li>- Shopping bag</li> <li>- High recycle content blown film product</li> <li>- Industrial bag</li> </ul>
International compliance standards	<ul style="list-style-type: none"> <li>- U.S FDA 21 CFR 177.1520</li> <li>- Regulation (EU) No.10/2011</li> <li>- Packaging and Packaging Waste Directive 94/62/EC</li> <li>- RoHS Directive 2011/65/EU (RoHS 2)</li> <li>- REACH Regulation (EC) No.1907/2006</li> <li>- PL Certificate (JCII)</li> </ul>	

**Remark:** HDPE film properties obtained from experiment on a pilot line at SCGC with film thickness 12 microns and BUR 5:1  
S199F film produced at SCGC lab with film thickness 12 microns and BUR 5:1



## FILM APPLICATION

# PP HOMOPOLYMER RESIN

GRADE	P601F	P602F
<b>MFR</b> (g/10min)	10.0	10.0
<b>Tensile strength at break</b> (%)	MD 300, TD 100	MD 270, TD 100
<b>Elongation at break</b> (%)	MD 500, TD 100	MD 450, TD 100
<b>Tensile modulus, 2% secant</b> (kg/cm <sup>2</sup> )	MD: 5000, TD: 4800	MD: 5500, TD: 5300
<b>Slip anti-block</b>	Yes	No
<b>Key characteristic</b>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- Good optical properties</li> <li>- Excellent openability</li> <li>- Food contact safe</li> <li>- High slip and Anti-block content</li> </ul>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- Excellent optical properties</li> <li>- Ability to blend with P601F for superior film clarity</li> <li>- Food contact applicable</li> </ul>
<b>Recommended applications</b>	<ul style="list-style-type: none"> <li>- Water quenched blown film for general purpose film and food packaging</li> </ul>	<ul style="list-style-type: none"> <li>- Water quenched blown film for thick packaging such as food packaging and display bag</li> </ul>

Remark: PP film properties obtained from experiment on a pilot line at SGGC with film thickness 35 microns and cooling water temperature at 25 °C



## FILM APPLICATION LLDPE RESIN

GRADE	L2009F	L2009FA	L1210F	L1211FA
<b>MFR</b> (g/10min)	1.0	1.0	1.0	1.0
<b>Density</b> (g/cm <sup>3</sup> )	0.921	0.920	0.921	0.920
<b>Tensile strength at break MD/TD</b> (kg/cm <sup>2</sup> )	MD 380, TD 350	MD 380, TD 350	MD 380, TD 350	MD 380, TD 350
<b>Tear strength MD/TD</b> (g)	MD 150, TD 400	MD 150, TD 400	MD 145, TD 370	MD 145, TD 370
<b>Dart drop impact</b> (g)*	130	130	130	150
<b>Slip anti-block</b>	Yes	No	Yes	No
<b>Key characteristics</b>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- Good optical properties</li> <li>- Ability to blend with HDPE, LDPE</li> <li>- Food contact applicable</li> <li>- Good openability with slip anti-blocking agent</li> </ul>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- Good optical properties</li> <li>- Ability to blend with HDPE, LDPE</li> <li>- Food contact applicable</li> </ul>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- Good optical properties</li> <li>- Ability to blend with HDPE, LDPE</li> <li>- Food contact applicable</li> <li>- Good openability with slip anti-blocking agent</li> </ul>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- Good optical properties</li> <li>- Ability to blend with HDPE, LDPE</li> <li>- Food contact applicable</li> </ul>
<b>Recommended applications</b>	<ul style="list-style-type: none"> <li>- General purpose bag</li> <li>- Chilled and frozen food packaging</li> <li>- Rice bag</li> <li>- Outer and cover bag</li> <li>- Industrial bag</li> <li>- Agricultural film</li> <li>- Heavy duty bag</li> </ul>			

Remark: LLDPE film properties obtained from experiment on a pilot line at SCGC with film thickness 30 microns and BUR 2:1



## FILM APPLICATION LLDPE RESIN

GRADE	L1220F	L1221FA	L1231FA	L1810FI
<b>MFR</b> (g/10min)	2.0	2.0	2.8	1.0
<b>Density</b> (g/cm <sup>3</sup> )	0.920	0.920	0.920	0.921
<b>Tensile strength at break MD/TD</b> (kg/cm <sup>2</sup> )	MD 220, TD 130	MD 220, TD 130	MD 100, TD 90	MD 470, TD 170
<b>Tear strength MD/TD</b> (g)	MD 125, TD 330	MD 125, TD 330	MD 250, TD 270	MD 150, TD 400
<b>Dart drop impact</b> (g)*	90	90	70	130
<b>Slip anti-block</b>	Yes	No	No	Yes
<b>Key characteristics</b>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- High elongation</li> <li>- Good optical properties</li> <li>- Food contact applicable</li> </ul>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- High elongation</li> <li>- Good optical properties</li> <li>- Food contact applicable</li> <li>- Ability to blend with squeeze tubes and blow molding process</li> </ul>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- High optical properties</li> <li>- Good mechanical properties</li> <li>- Food contact applicable</li> </ul>	<ul style="list-style-type: none"> <li>- High productivity</li> <li>- High clarity with water quenched film</li> <li>- Good optical properties</li> <li>- Ability to blend with HDPE, LDPE</li> <li>- Food contact applicable</li> <li>- Good openability with slip anti-blocking agent</li> </ul>
<b>Recommended applications</b>	<ul style="list-style-type: none"> <li>- General purpose bag</li> <li>- Merchandise bag</li> <li>- Printed bag</li> <li>- Small bag</li> </ul>	<ul style="list-style-type: none"> <li>- General purpose bag</li> <li>- Lamination film</li> <li>- Stretch cling film</li> </ul>	<ul style="list-style-type: none"> <li>- Cast Stretch wrap</li> <li>- Cast film</li> <li>- Cling film</li> <li>- General packaging</li> </ul>	<ul style="list-style-type: none"> <li>- Chilled and frozen food packaging</li> <li>- Fruit and vegetable bag</li> <li>- Industrial bag</li> <li>- Water quenched blown film</li> </ul>

Remark: LLDPE film properties obtained from experiment on a pilot line at SCGC with film thickness 30 microns and BUR 2:1



# SCGC™ LDPE

## For Extrusion Coating and Lamination

GRADE	D477C	D777C	D388C
<b>Recommended applications</b>		<ul style="list-style-type: none"> <li>- Sachet</li> <li>- Snack pouch</li> <li>- Paper &amp; tarpaulin coating</li> <li>- Woven</li> <li>- Aseptic box</li> </ul>	
<b>Melt flow rate (MFR) at 190°C, 2.16kg (g/10min) ASTM D1238</b>	4	7	8
<b>Density (g/cm³) ASTM D1505</b>	0.924	0.920	0.919
<b>Melting temperature (°C) ASTM D3418</b>	112	107	107
<b>Key characteristics</b>	<ul style="list-style-type: none"> <li>- Good neck-in performance</li> <li>- High stiffness</li> <li>- High scratch resistance</li> <li>- Good processability, thickness control, and edge stability</li> </ul>	<ul style="list-style-type: none"> <li>- Good neck-in performance</li> <li>- Good processability, thickness control, and edge stability</li> </ul>	<ul style="list-style-type: none"> <li>- Excellent drawability</li> <li>- Suitable for high speed machine</li> <li>- Good processability and thickness control with low coating weight</li> </ul>
<b>International compliance standards</b>	<ul style="list-style-type: none"> <li>- U.S FDA 21 CFR 177.1520</li> <li>- Regulation (EU) No.10/2011</li> <li>- Regulation (EC) 2023/2006 (GMP)</li> <li>- Packaging and Packaging Waste Directive 94/62/EC</li> <li>- PL Certificate (JCI)</li> <li>- Consult the regulations for complete details</li> </ul>		

Remark: Coating properties obtained from pilot coating line, Melt temperature 295°C, line speed 100 m/min

# SCGC™ HDPE

**For Co-Extrude Blown Film, Machine Direction Oriented Film, Bi-axial Oriented Film, Cast Film, Extrusion Coating, and Lamination**

GRADE	H619F	H377C	S197F
<b>Recommended process</b>	<ul style="list-style-type: none"> <li>- Co-extrusion blown film</li> <li>- Machine directional oriented film</li> </ul>	<ul style="list-style-type: none"> <li>- Cast film</li> <li>- Extrusion coating and lamination</li> </ul>	<ul style="list-style-type: none"> <li>- Biaxially oriented film compatible with tenter frame, double-bubble, and triple-bubble processes</li> </ul>
<b>Recommended applications</b>	<ul style="list-style-type: none"> <li>- General and industrial packaging</li> <li>- Diaper back sheet</li> <li>- Stand up pouch</li> <li>- Laminated film and tube</li> <li>- Pressure sensitive adhesive label</li> <li>- Mono-material packaging</li> </ul>	<ul style="list-style-type: none"> <li>- Non-breathable film</li> <li>- Breathable film</li> <li>- Laminated film</li> <li>- Laminated tube</li> <li>- Aseptic carton</li> <li>- Released liner</li> <li>- Paper coating</li> </ul>	<ul style="list-style-type: none"> <li>- BOPE</li> <li>- Printable BOPE</li> <li>- Metallizable BOPE</li> <li>- Oxide-Coatable BOPE</li> </ul>
<b>Melt flow rate (MFR) at 190°C, 2.16kg (g/10min) ASTM D1238</b>	0.7	7.5	0.7
<b>Density (g/cm<sup>3</sup>) ASTM D1505</b>	0.962	0.961	0.954
<b>Tensile strength at break (MPa) ASTM D882</b>	MD 42, TD 35	MD 37, TD 28	-
<b>Elongation at break (%) ASTM D882</b>	MD 730, TD 4	MD 859, TD 3	-
<b>2% secant modulus (MPa) ASTM D882</b>	MD 915, TD1010	MD 706, TD 855	-
<b>Elmendorf tear strength (g) ASTM D1922</b>	MD 8, TD 261	MD 8, TD 64	-
<b>Key characteristics</b>	<ul style="list-style-type: none"> <li>- High film stiffness</li> <li>- High temperature resistance</li> <li>- Excellent compatibility with LLDPE and LDPE</li> </ul>	<ul style="list-style-type: none"> <li>- High stiffness</li> <li>- Easy tearing in MD</li> <li>- Excellent temperature and scratch resistance</li> </ul>	<ul style="list-style-type: none"> <li>- Good stretchability</li> <li>- Excellent dimensional stability</li> </ul>
<b>International compliance standards</b>	<ul style="list-style-type: none"> <li>- U.S. FDA 21 CFR 177.1520</li> <li>- Regulation (EU) No.10/2011</li> <li>- Regulation (EC) 2023/2006 (GMP)</li> <li>- Packaging and Packaging Waste Directive 94/62/EC</li> <li>- Consult the regulations for complete details</li> </ul>	<ul style="list-style-type: none"> <li>- U.S. FDA 21 CFR 177.1520</li> <li>- Regulation (EU) No.10/2011</li> <li>- Regulation (EC) 2023/2006 (GMP)</li> <li>- Packaging and Packaging Waste Directive 94/62/EC</li> </ul>	<ul style="list-style-type: none"> <li>- U.S. FDA 21 CFR 177.1520</li> <li>- Regulation (EU) No.10/2011</li> <li>- Regulation (EC) 2023/2006 (GMP)</li> <li>- Packaging and Packaging Waste Directive 94/62/EC</li> <li>- RoHS: Directive 2011/65/EU</li> <li>- Consult the regulations for complete details</li> <li>- PL Certificate (JCII)</li> </ul>

Remark: Film properties obtained from pilot line at SCGC, 25 micron, Melt temperature 220°C



## SCGC™ PP: HOMOPOLYMER & COPOLYMER For Cast Film and Biaxial Oriented Film

GRADE	P607F	P350F	P405F	P409F
<b>Recommended process</b>	- Cast film	- Cast film	- Bi-axial oriented film	- Bi-axial oriented film
<b>Recommended applications</b>	- Laminated film - Metalized film - High speed yarns - Lidding film	- Retort packaging - Straight tear with MDOPP - High seal strength CPP film	- BOPP for printing film - Metalized film - Label - Tape	- BOPP high heat resistance - Metalized film - Printing layer for mono-material packaging
<b>Melt flow rate (MFR) at 230°C, 2.16kg (g/10min) ASTM D1238</b>	7.0	3.2	3.0	3.0
<b>Density (g/cm³) ASTM D1505</b>	0.910	0.900	0.900	0.900
<b>Flexural modulus (MPa) ASTM D790A</b>	1600	900	1500	1700
<b>Haze (%) ASTM D1003</b>	9 (Film thickness 25 µm)	11 (Film thickness 70 µm)	1.1 (Film thickness 20 µm)	3.5 (Film thickness 18 µm)
<b>Key characteristics</b>	- High film stiffness - Good clarity - Good processability	- Excellent seal properties - Excellent clarity - Good stress-whitening resistance	- Good stretchability - High clarity - Good dimensional stability	- Good stretchability - Good clarity - Excellent dimensional stability
<b>International compliance standards</b>	- U.S. FDA 21 CFR 177.1520 - Regulation (EU) No.10/2011 - Packaging and Packaging Waste Directive 94/62/EC - PL Certificate (JCII) - Consult the regulations for complete details	- U.S. FDA 21 CFR 177.1520 - Regulation (EU) No.10/2011 - Regulation (EC) - PL Certificate (JCII) - Consult the regulations for complete details	- U.S. FDA 21 CFR 177.1520 - Regulation (EU) No.10/2011 - PL Certificate (JCII)	- U.S. FDA 21 CFR 177.1520 - Regulation (EU) No.10/2011 - Consult the regulations for complete details

Remark: Film properties obtained from pilot line at SCGC, 25 micron (P607F) and 70 micron (P350F), Melt temperature 220°C



## SCGC™ PP: HETEROPHASIC POLYPROPYLENE For Extrusion Coating and Lamination

GRADE	P790C
<b>Recommended applications</b>	<ul style="list-style-type: none"> <li>- Instant noodle packaging</li> <li>- Snack pouch</li> <li>- Candy packaging</li> <li>- Sealing layer for food packaging</li> </ul>
<b>Melt flow rate (MFR) at 230°C, 2.16kg (g/10min) ASTM D1238</b>	20
<b>Density (g/cm³) ASTM D1505</b>	0.910
<b>Tensile strength at yield (MPa) ASTM D882</b>	MD 33.6, TD 23.3
<b>Elongation at yield (%) ASTM D882</b>	MD 760, TD 670
<b>Melting temperature (°C) ASTM D3418</b>	140
<b>Key characteristics</b>	<ul style="list-style-type: none"> <li>- Excellent processing</li> <li>- Good compatible with color masterbatch</li> <li>- Good seal initial temperature</li> <li>- Good adhesion on BOPP film</li> </ul>
<b>International compliance standards</b>	<ul style="list-style-type: none"> <li>- U.S. FDA 21 CFR 177.1520</li> <li>- Regulation (EU) No.10/2011</li> <li>- Consult the regulations for complete details</li> </ul>



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