We Create Eco-Friendly Products

SAMJI

Leader of New Tech



What We Produce

Water Based Emulsion Polymers
Water Based Finished Products
Produces Waterproofing agents

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| Water Based Emulsion Polymers

Water Based Binders
Opaque Polymer (SHP Series)
Rheology Modifiers (Acrylic)

Samji Group | **Introduction**

'Samji provides satisfaction and trust to customers'

Samji produces a lot of water based emulsion polymers used in architecture coatings, paper coating and industrial coating and deals in inorganic chemical used in dyes, leather, textiles, feed and other industries.
We provide high quality products and services through R&D efforts to close communication with customers and the early introduction of automated systems to ensure stable quality.
Further on, our company ensures a long-term growth for the company by maintaining a safe and friendly working environment, and securing the trust of our partners and customers.

'Samji will become a company that we want to work together while our customers and employees are satisfied at the same time.'

01 Vision

A specialist in emulsion which achieves customer satisfaction and adds value to customer technology for more than 40 years. We will provide the best products and services as a partner with our customers and strive to become a global leader in the emulsion industry.

Technology Improvement — Customer Satisfaction — Quality Improvement — Constant Challenge

02 Company Organization



Founded in 1976.10

- Signed a Korea Agency Contract with Dow Chemical (Water borne Coating Materials)
- Handles inorganic chemical (Sodium Chloride, Sodium Carbonate etc)
- Holding company of Samji TechIn Co., Ltd.

Founded in 1980.06

- Manufacture of Water based Binders, Sphere Hollow Pigments, Rheology Modifiers

Founded in 2007.08

- Domestic sales and overseas export of manufactured products of Samji Chemical Co., Ltd.
- Used in manufacturing of the finished paint products such as waterproof agents (including OEM)

Samji Group | **Introduction**

03 History and Milestones

2020 - 2022

2022.12 Samji Chemical
selected as a Good company to work for in Chungju.

2021.12 Samji Chemical
achieved Seven million in exports.

2020.07 Samji Sanmool
signed a Korea Agency Contract with Dow Chemical.

2015 - 2019

Samji Chemical received recognition as Youth-Friendly Small Giants from The Ministry of Employment and Labor. **2019.01**

Samji Chemical received recognition as Youth-Friendly Small Giants from The Ministry of Employment and Labor. **2017.12**

Samji Chemical received recognition as Youth-Friendly Small Giants from The Ministry of Employment and Labor. **2016.06**

Samji Chemical established Smart Factory (ERP) by Ministry of SMEs and Startups. **2016.05**

Samji Sanmool relocated Seoul office to Seoul Forest Dream Tower. **2015.05**

2011 - 2014

2014.02 Relocated Samji Chemical manufacturing plant (head office) to Central industrial complex at Chungju city.

2013.12 Samji Chemical received award as 'Export Tower of Five Million Dollars'.

2011.11 Samji Chemical received award as 'Export Tower of Three Million Dollars'.

2005 - 2007

Founded Samji Techin. **2007.08**

Samji Chemical achieved ISO 9001, ISO 14001 Certification. **2006.08**

Samji Chemical Signed O.D.M contract with ROHM & HAAS corp (Dow Chemical). **2005.03**

1993

1993.06 Relocated Samji Sanmool manufacturing plant to southeast industrial complex at Incheon city.

1980 - 1986

Samji Sanmool opened a new Seoul Office in Mapo-gu, Seoul. **1986.10**

Relocated Samji Sanmool Incheon manufacturing plant to Incheon city. **1981.07**

Opened Samji Chemical Gimpo manufacturing plant in Gimpo city. **1980.06**

1976 - 1979

1979.06 Samji Sanmool Signed
a dealer contract with Hanjusalt corp.

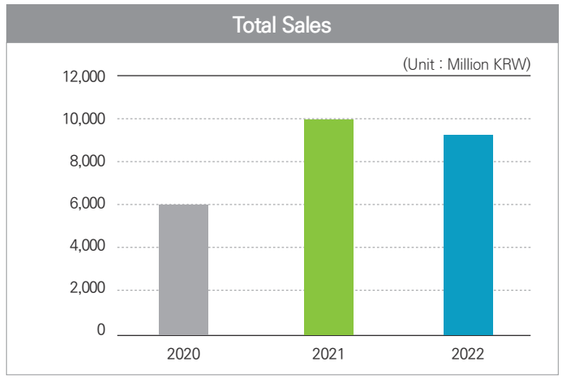
1976.10 Founded Samji Sanmool.

04 Annual Sales

Samji Sanmool

(Unit : Million KRW)

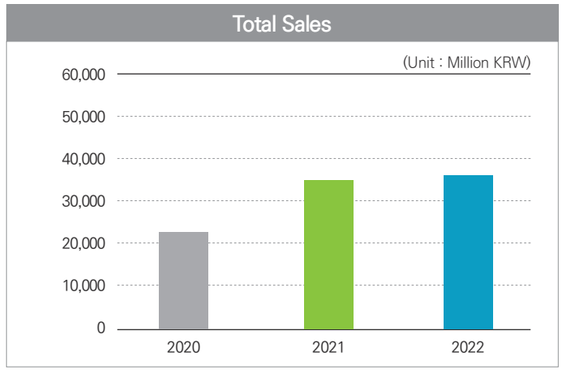
Year	Total Sales
2022	8,721
2021	9,970
2020	5,990



Samji Chemical

(Unit : Million KRW)

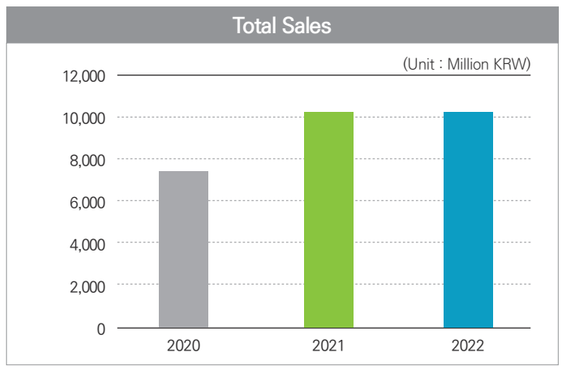
Year	Total Sales
2022	35,184
2021	34,311
2020	22,066



Samji Techin

(Unit : Million KRW)

Year	Total Sales
2022	10,548
2021	10,316
2020	7,513



05 Overview of plant & Manufacture facilities

Samji Sanmool



Size of plant · Land : 5,876㎡ · Building : 3,713㎡

Samji Chemical / Samji Techin



Size of plant · Land : 11,729㎡ · Manufacture facilities : 3,171㎡
· R&D General Affairs : 704㎡ · Other buildings : 1,941㎡

Facility (110M/T Capacity per One Shift) · Automated Processing : 30M/T * 2EA 10M/T * 1EA
20M/T * 1EA 5M/T * 1EA
15M/T * 1EA

06 Certification



2022.12.30
Good Company to Work for in Chungju



2020.03.10
Research and Development Department Certificate



2019.01.01
Youth-Friendly Small Giants



2017.12.19
Youth-Friendly Small Giants



2017.07.07
Research and Development Department Certificate



2016.03.15
Export Tower Award Certificate



2015.04.24
CLEAN Business Establishment Certificate



2011.09.09
CLEAN Business Establishment Certificate



2011.07.28
Korea International Trade Association Membership



2006.08.14
Quality Management System Certificate



2006.08.14
Environmental Management System Certificate

07 Our Partner & Our Customers

Our Partner

We have been producing Opaque Polymers and Water Based Binders since signing ODM contract with Dow Chemical (former ROHM & HAAS) in March 2005.

Our Customers

Hansol · 삼화페인트 · 노루페인트 · JEVISCO
벽산페인트 · 조광페인트 · 테라코 코리아㈜ · Neopaint
Dong-a Waterproof · ㈜대명케미칼 · KISCO · WISECHEM

Samji Chemical I **Our Technology**

Samji Chemical is preparing to take a leap forward as a global leader in the domestic applied material chemical field.

The R&D Center of Samji Chemical as a global leader in the field of Water Based Emulsion Polymers is responding to customer needs through continuous research and development in various industries.



01 Governmental Tasks

Development of water based quick-drying paint with P5-R5/RW4 grade abrasion for road marking
[2017.12.01 ~ 2018.11.30]
Development of spherical hollow pigments for functional cosmetics with improved soft focusing
[2018.05.01 ~ 2019.01.31]

02 Patents



2020.07.01	2019.12.17	2018.03.14	2015.06.19	2015.06.19	2015.06.19
No. 10-2156097	No. 10-2112309	No. 10-1901915	No. 10-1574694	No. 10-1574702	No. 10-1574705

03 Research field

1 Development of Water Based Binders for paint in internal and external usage

Acrylic Binders are suitable for improving paint properties such as water/alkali resistance and compatibility with pigments composed of styrene/acrylic copolymer or acrylic copolymer.

2 Development of Opaque Polymer

Opaque Polymers can replace TiO_2 and be used for paper coating and paint because of excellent hiding, low cost and low thermal conductivity.

3 Development of Acrylic Rheology Modifiers

Various rheology modifiers specialized in Low shear/ High shear (such as ASE, X-linKed ASE and HASE, etc.)

4 Development of Binders for Industrial coating

Excellent adhesion and improvement of durability on various substrate surfaces such as plastic, steel plate and glass.

5 Development of Binders for LMC(Latex Modified Concrete)

Excellent adhesion, compressive strength, workability, alkaline resistance and compatibility with cement mortar. Development of paper coating additives.

6 Development of Paper coating additives

Opaque Polymers, Binders, Rheology Modifiers to improve high gloss, hidings, water retention.

7 Development of eco-friendly paint

Acrylic Binders are suitable for eco-friendly paint due to excellent film formation with minimal amount of Volatile Organic Compounds (VOC)

Samji Chemical I **Our Products**

Water Based Emulsion Polymers

01 Water Based Binders / Outline



Binders for Paint

- It has high binding force with inorganic pigments, providing excellent miscibility.
- Excellent surface hardness and excellent adhesion to various substrates.
- Provides excellent waterproof and Dirt Pick Up Resistance, and improves UV resistance.
- Provides superior weatherability and ease to use.
- Provides faster drying speed than normal acrylic emulsion.
- Provides low VOC and solutions for customized product production.

Purpose

Used for internal and external paints requiring durability and for high gloss paints, etc.



Binders for Texture Coating

- It has high binding force with inorganic pigments, providing excellent miscibility.
- Provides excellent adhesion to various substrates.
- Provides excellent waterproof and Dirt Pick Up Resistance, and improves UV resistance.
- Provides superior weatherability and ease to use.
- Provides faster drying speed than normal acrylic emulsion.
- Provides low VOC and solutions for customized product production.

Purpose

Used for stone coat finishes, dry bit finishes, waterproof roofing material, special coatings, etc. that requires water resistance.

Samji Chemical I **Our Products**

Water Based Emulsion Polymers

01 Water Based Binders / Outline



Binders for Industrial Coating

- It has high binding force with inorganic pigments, providing excellent miscibility.
- Provides excellent adhesion to various substrates.
- Provides excellent waterproof and Dirt Pick Up Resistance, and improves UV resistance.
- Provides excellent dispersibility, weatherability and ease to use of pigments.
- Provides faster drying speed than normal acrylic emulsion.
- Provides low VOC and solutions for customized product production.

Purpose

Used in high functional water based paint binders, water based binders for metal coating etc.



Binders for Cement/Concrete

- Provides superior dispersibility with cement.
- Provides excellent compressive strength and adhesive strength.
- Excellent waterproof and ease to use.

Purpose

Used for mortar adhesives, cement adhesives, polymer cement, other waterproofing materials, etc.

Samji Chemical | **Our Products**

Water Based Emulsion Polymers

02 Water Based Binders / Specification

Binders for Paint

Grade	Characteristic and uses	NVF (%) (135℃/30min)	pH	Viscosity (cP)	Specific Gravity	Type
SAP-7118	Excellent waterproof and adhesion, Interior high PVC paint	48±1	8.0~10.0	200~2,000	1.0~1.10	Styrene/Acrylic
SAP-7504	Excellent waterproof and adhesion, Exterior/Interior Architectural paint	48±1	8.0~10.0	500~3,000	1.0~1.10	Styrene/Acrylic
SAP-2500	Excellent compatibility/ waterproof and Exterior paint	50±1	8.0 ~ 10.0	50 ~ 2,000	1.0 ~ 1.10	Acrylic copolymer
SAP-2300	Good UV resistance, Excellent waterproof and adhesion High DPUR*, Exterior paint	48±1	8.0~10.0	10~1,000	1.0~1.10	Acrylic copolymer
SAP-2332	Excellent compatibility/ Surface hardness and waterproof Exterior gloss and Roof coating paint	48±1	8.0~10.0	200~1,000	1.0~1.10	Acrylic copolymer
SAP-3300G	High Gloss paint (60°Gloss 〉80%)	48±1	8.0~10.0	10~1,000	1.0~1.10	Acrylic copolymer
SAP-2116	Excellent compatibility with inorganic pigment, Excellent elasticity waterproof and adhesion	46±1	8.0~10.0	200~2,000	1.0~1.10	Acrylic copolymer
SAP-2086	Excellent waterproof and elasticity, Mulitcoat and interior coating	46±1	8.0~10.0	200~2,000	1.0~1.10	Acrylic copolymer

* DPUR (Dirt Pick Up Resistance)

Biners for Texture coating

Grade	Characteristic and uses	NVF (%) (135℃/30min)	pH	Viscosity (cP)	Specific Gravity	Type
SAP-7156	Excellent adhesive for stone coat	46±1	8.0~10.0	500~2,000	1.0~1.10	Styrene/Acrylic
SAP-2515	Excellent UV stability for stone coat	45±1	8.0~10.0	500~5,000	1.0~1.10	Acrylic copolymer
SAP-7207	Excellent adhesive / DPUR* Mechanical stability	47±1	8.0~10.0	300~3,000	1.0~1.10	Styrene/Acrylic

Binders for Industrial coating

Grade	Characteristic and uses	NVF (%) (135℃/30min)	pH	Viscosity (cP)	Specific Gravity	Type
SAP-7104	Excellent adhesion for Thermal-crosslinked type, for steel coating	44±1	7.0~9.0	200~2,000	1.0~1.10	Styrene/Acrylic

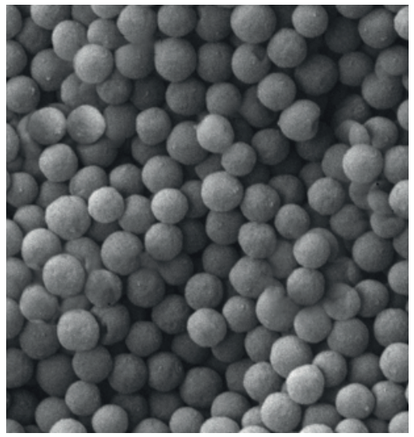
Binders for Cement/Concrete

Grade	Characteristic and uses	NVF (%) (135℃/30min)	pH	Viscosity (cP)	Specific Gravity	Type
SAC-8700	Excellent compatibility and adhesion	47±1	8.0~10.0	10~1,000	1.0~1.10	Acrylic copolymer
SAC-9000	Excellent compatibility and adhesion for LMC	47±1	8.0~10.0	10~1,000	1.0~1.10	Styrene/Acrylic
SAC-4500	Excellent compatibility, elasticity and adhesion	55±1	7.0~9.0	1,000~3,000	1.0~1.10	Styrene/Acrylic
SAC-4520	Excellent compatibility, strength and elasticity	53±1	7.0~9.0	200~2,000	1.0~1.10	Styrene/Acrylic

Samji Chemical | **Our Products**

Water Based Emulsion Polymers

03 Opaque Polymer (SHP Series)



- **Replacement of TiO_2 in water base paints.**
  Prime cost of paint is reduced and approximately 2%~8% of TiO_2 could be replaced by SHP (Sphere Hollow Pigment).
- **Anti-crowding Effect**
  SHP is much larger size surface area per particle weight than Titanium Dioxide, resulting in less aggregation.
  Better hiding and could be a replacement of Kaolin.
- **Low thermal conductivity and opacity**
  Low thermal conductivity and ultimate hiding power is achievable due to internal air layers.
- **Improved Dirt Pick Up Resistance/gloss**
  The incorporation of opaque polymer SHP-60 increases PVC and Dirt Pick Up Resistance of paint, but has less impact on its gloss or sheen.

Opaque Polymer — Low Cost — Strong Hiding Power — Good Gloss

Clear printing on thermal paper is available due to excellent insulation performance through low thermal conductivity.





Grade	Application	NVF (%) (135℃/30min)	pH	Viscosity (cP)	Specific Gravity	Particle Size(nm)	Characteristic
SHP-40	Paint	37.5±0.5	8.0~10.0	10~400	1.0~1.1	400~600	Excellent opacity / gloss and low cost, Substitution of TiO_2
SHP-60	Paint	29.5±0.5	8.0~10.0	10~400	1.0~1.1	500~750	Excellent opacity / gloss and low cost, Substitution of TiO_2
SHP-100	Paint/Paper	26.5±0.5	8.0~10.0	10~400	1.0~1.1	900~1,200	Excellent high gloss, Good printability and high DPUR*

* DPUR (Dirt Pick Up Resistance)

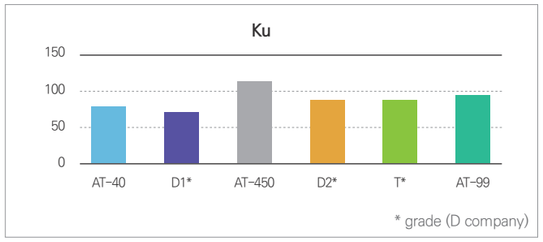
04 Rheology Modifiers (Acrylic)

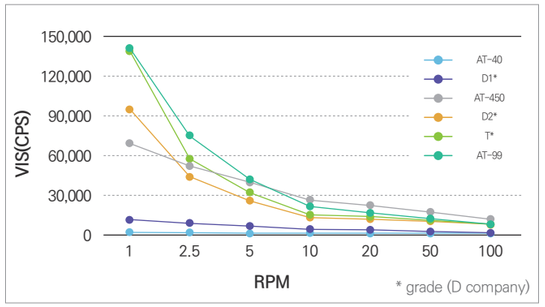
- **High thickening effect and ease to use with a small content.**
- **Good for stability of paint viscosity and prevention of syneresis.**
- **Thickening effect suitable for the tool you use. (ex, roller, brush, and spray etc.)**
- **Used for internal and external water based paint, water based acrylic emulsion, dry bit finishing material.**

Cautions : Shows thickening effect in alkaline condition (pH : 8 ~ 10).
For exact adjusting the viscosity or prevent of shocking, Rheology Modifiers must be diluted with water (1:1 – 1:3) before adding.

HASE 1% Solution

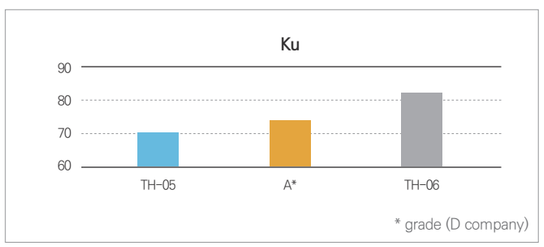
HASE (Hydrophobically Modified Alkali Swellable Emulsion)
AT-33, AT-40, AT-99, AT-450 etc.

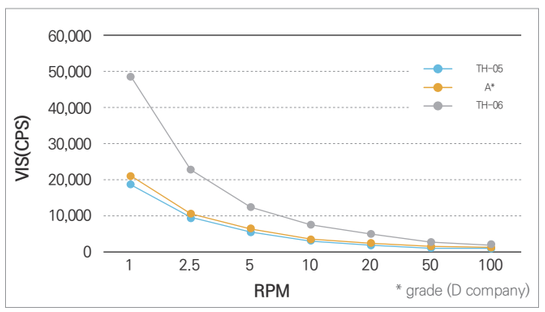




ASE 1% Solution

ASE (Alkali Swellable Emulsion)
TH-05, TH-06





Grade	Chemical Type	NVF (%) (135℃/30min)	pH	Viscosity (cP)	Specific Gravity	Particle Size (nm)	Molecular Weight
TH-05	Crosslinked ASE	28±0.5	2.0~4.0	below 100	1.01~1.08	100~130	over 1,000,000
TH-06		30±1	2.0~4.0	below 100	1.01~1.08	100~130	over 1,000,000
AT-33	HASE	25±1	2.0~4.0	below 100	1.01~1.08	100~120	over 1,000,000
AT-40		28±1	2.0~4.0	below 100	1.01~1.08	100~120	over 1,000,000
AT-65		30±1	2.0~4.0	below 100	1.01~1.08	100~120	over 1,000,000
AT-99		30±1	2.0~4.0	below 100	1.01~1.08	100~120	over 1,000,000
AT-450		30±1	2.0~4.0	below 100	1.01~1.08	100~120	over 1,000,000

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