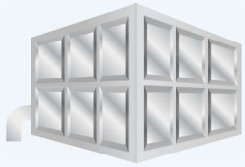


~ Innovative technology to the world! ~



Sus-Coating®



FRP tank Upgrade - Stronger and like new using patented technology

The service life of a water storage tank is set at 15 years based on the Water Tank Structural Design and Calculation Method.

Renewal of water storage tanks is often put off because of the water shutoff procedures and high renewal costs. Deteriorated water storage tanks can cause accidents due to fiberglass scattering and panel collapse, requiring emergency work.

SUS coating solves all the problems associated with water storage tanks.

It is the only new generation of environmentally friendly technology that leads to long-term life extension of facilities.

The advantage of SUS Coating

Light Shielding

The total light transmittance is 0%, preventing the formation of algae and bacteria and preserving water quality.

Weather Resistance

The coating formed by stainless pigments protects the tank from salt damage, sunlight, and acids.

Anti Rust

Forms a corrosion-resistant film. Prevents rust and corrosion on metal parts.

Adaptability

Can be applied directly to any base material other than silicone.

Adhesion

No primer is required for painting, No damage to the base material.

Environmental

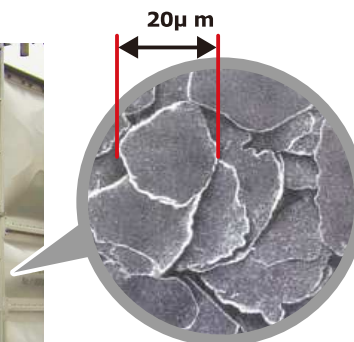
Reduce industrial waste by extending the life of existing tanks.

Economy

Maintenance costs are significantly lower than tank replacement.

Efficient Installation

Efficiently installed because No water disconnection is required, only external painting and fast drying.



SUS 316 L
Stainless steel pigment

The surface is covered with pigments shaped like scales

Photographs by
electron microscope

Long-term life extension of tank facilities reduces CO2 emissions

Manufacturing a 100-ton FRP water tank emits about 2 tons of CO2.

Properties and Specification

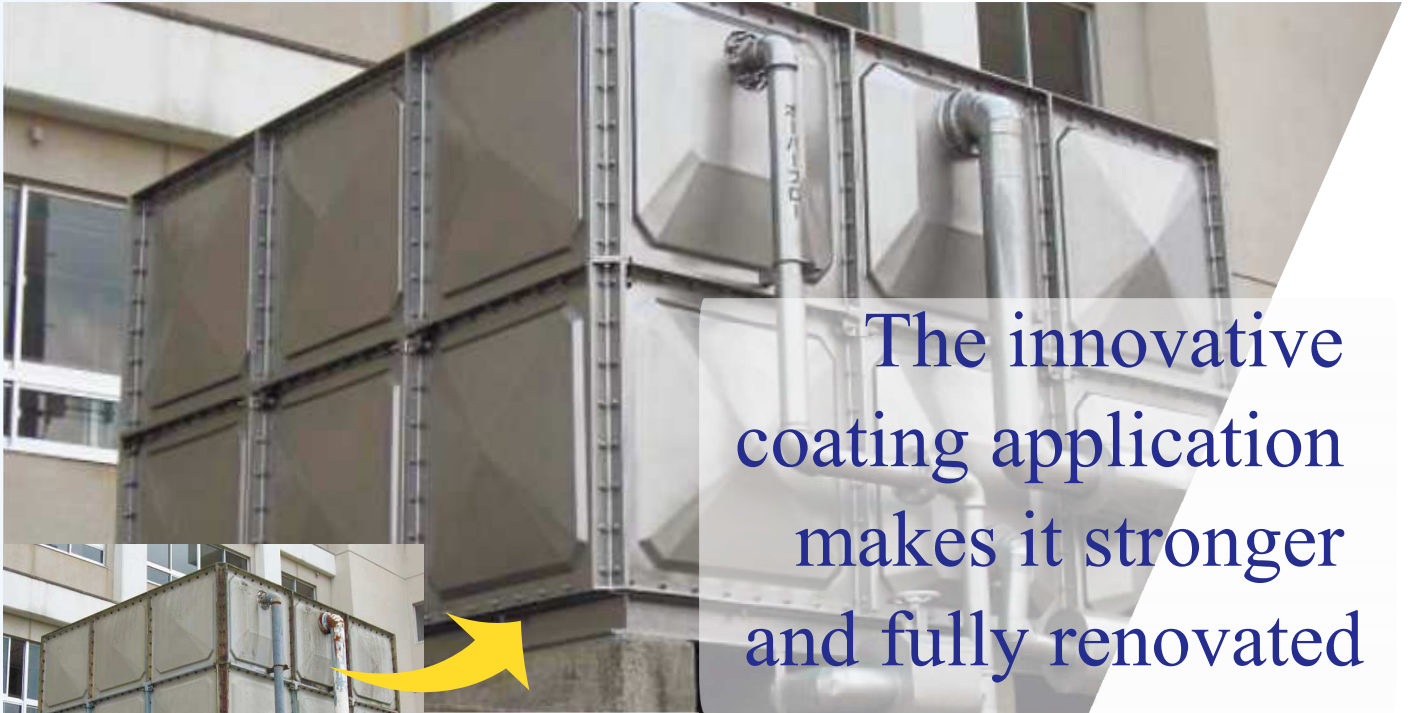
SUS coating provides superior strength, light shielding, weather resistance, and water safety

Product	PS 500	Specification	- Polyolefin resin paint - Stainless pigment (SUS316L)
Patent	Patent No. 4796326	Effects	- Can be painted directly on PP, PE, FRP, PVC, etc. - Pigments of stainless steel overlap in a scaled pattern to block light, air, and moisture - Total light transmittance 0%.
Trademark	Trademark No. 6687088		
Warranty	10 years	Examination	Ministry of Health and Welfare Notification No. 15 No. B009091112 Conform to the provisions of the Ministerial Ordinance establishing technical standards for water supply facilities. Water quality safety is confirmed.

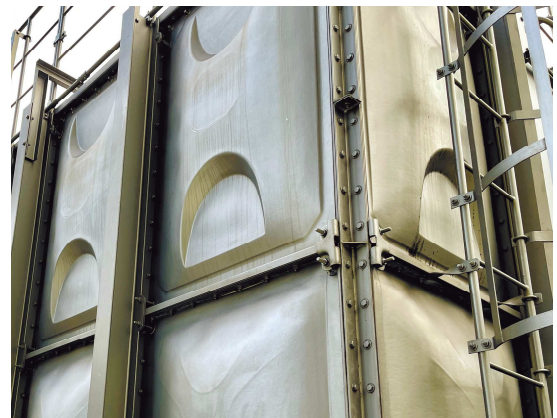
Tested Items		Tested solvent/solution	Applied FRP, PP, PE	
Basic color	Silver grey	Hydrochloric acid 36wt%	Good	
Viscosity (CPS/25°C)	420	Nitric acid 67.5wt%	Good	
Density	1.22	Sodium hydroxide 40wt%	Good	
Grain size(in paint film)	Density	Ammonia water 28wt%	Good	
Non-volatile(150°C 30min)	Density	Anionic surfactant 3wt%	Good	
Drying Time	Finger touch	510 min	Strong alkali	Good
	Half hardening	1 hour	Weak alkali	Good
	Hardening	24 hours	Alcohol	Good
Pencil Hardness	2H	Xylene	Swelling/peeling	
Checkerboard tape peeling (1mm, 100/100)	Pass	Ketone	Swelling/peeling	
		Esters	Swelling/peeling	
		Ethers	Swelling/peeling	
Impact test Dupont method 500g 50cm	No cracking/peeling of the coating film	Aromatic hydrocarbons	Good	
		Aliphatic hydrocarbons	Good	
Bending test 2mm Φ 90 deg	No cracking/peeling	Mineral oil	Good	
		Brine	Good	
		Chlorine	Good	
Heat and Coldness resisance (100°C <-> -40°C/ 100 Cycles)	No cracking/peeling of the coating film	Fluorine	Good	
		Carbon dioxide	Good	
Water resisntance (2,000h)	No cracking/peeling/rusting of the coating film	Hydrogen sulfide	Good	
		Nitric acid gas	Good	
Accelerated weathering test (UV Tester equivalent to 15 years of outdoor exposure)	No cracking/peeling/rusting of the coating film	Sulfurous acid gas	Good	
Salt water spray test Sodium chloride sol. 5wt% (352°C, 1,000 h)	No cracking/peeling/rusting of the coating film	*After immersing the coated surface in each test solution in the table for 4 hours, the coated piece was washed and dried, Tape peeling test was conducted.		

Good: The painted film is not peeled off from the coated object by the tape
Swelling and peeling: The painted film is peeled off from the coated object by the tape

Installed Facilities



9 35 Y.O. tanks (20 years after coating application)

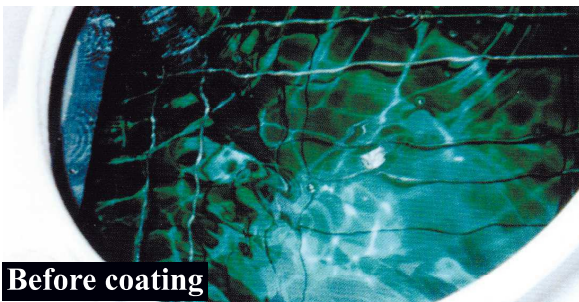


The SUS coating has been applied to the water storage tank 15 years after installation and 20 years have passed, but there is no peeling of the coating, no rust on the girders or bolts. (Picture taken 2023)

Installed Facilities

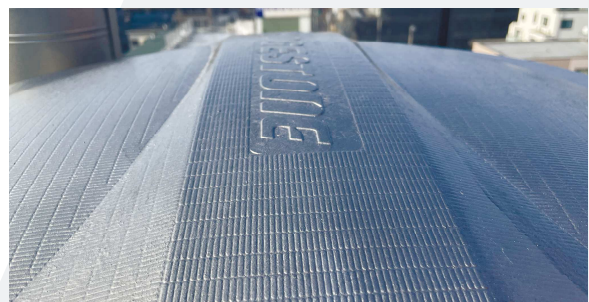
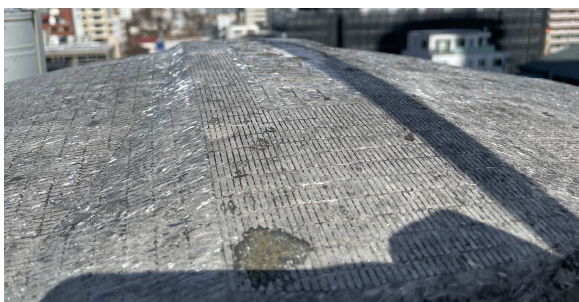


Light transmission inside the cistern



The water reservoir is impervious to light, preventing algae and bacterial growth and keeping the water stored hygienically.

Application to manhole cover



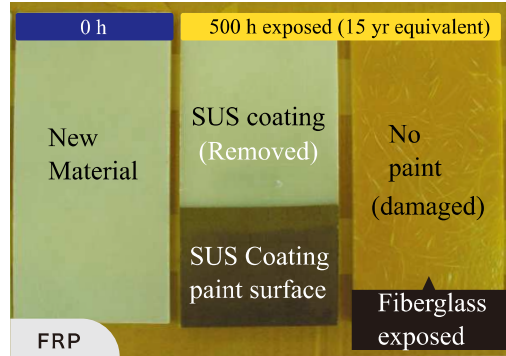
SUS coating prevents "glass fiber exposure," a typical deterioration of water tanks, and prevents deterioration.

Test data (NEXCO Central)

Accelerated weathering test

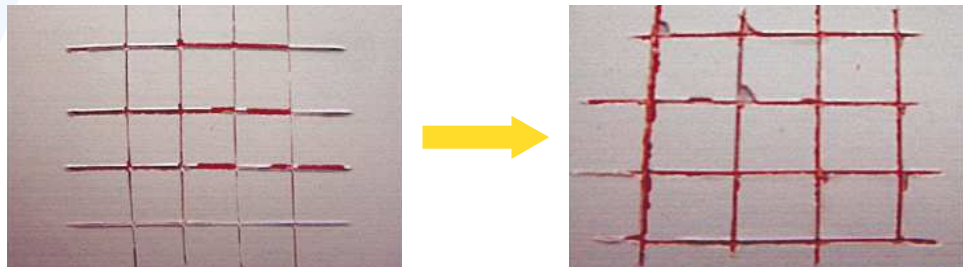
Test equipment	UV tester SUV-W161 (Iwasaki Electronic)
Exposed Duration	500 hours
Testing Process	Expose 6h → Condensation 2h (repetition)

Outdoor exposure → 15 years equivalent



Adhesion test

Fluoro resin paint



Exposure of primer and peeling of paint film occur

SUS-Coating



No change because the paint film adheres to the base material

Coating Strength Test

Fluoro resin paint

SUS-Coating



At the point the base material is destroyed, cracks occur on the surface of the coating



No change in the surface of the coating when the base material is destroyed

Neutral brine spray test

East Japan Railway Elevated Bridge Seismic Steel for Heavy Corrosion Protection

Sea water soaking 15 years equivalent

Results of visual observation of test specimens

No.	Paint	Rust from scratch	Swell on scratch	Rust on edge	Swell on edge	Rust on other	Swell on other
I	BMU-2-7	×	△	×	×	○	△
II	T-7	×	×	○	×	○	○
III	Curmet method	△	△	○	△	○	△
IV	Ultra-patch	△	○	×	×	○	○
V	Titanium film	△	○	△	×	○	○
VI	Referernce	×	△	×	△	○	△
VIII	SUS-Coatng (PS500)	△	○	○	○	○	○

○ : Good △ : partially damaged × : significantly damaged

Note: Edges show some rusting in areas where film thickness is thin



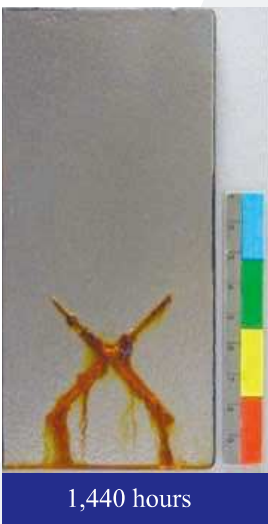
At beginning



500 hours



1,000 hours



1,440 hours

▶ Although the cut areas will rust because the coating is peeling off, The SUS coating does not corrode on the coated area.

SUS-coating supports the Sustainable Development Goals (SDGs)

SUSTAINABLE DEVELOPMENT GOALS

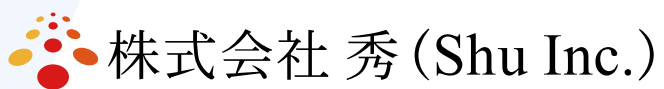


6. Clean water and Sanitation
 安全な水とトイレを世界中に
 The application of sus coating will help protect water quality and ensure safe and secure water.

11. Sustainable cities and communities
 住み続けられるまちづくりを
 SUS-coating significantly extends the service life of water storage tanks and protects the environment

12. Responsible consumption and production
 つくる責任 つかう責任
 SUS-coating reduces industrial waste by extending the life of existing cisterns.

HQ for SUS-coating



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Detail movie



Reference

Contact us :

*The contents of this catalog are subject to change without notice.