Sifacoat

Approved product under the
MLIT Non-combustible Material Test.
(Certification number NM-5811)

What is Sifacoat?

Provides long-term durability and protective effects

Our Vision for the Ideal Paint

Driven by a strong desire to "protect our customers' assets over the long term," we launched this business to offer innovative paint and coatings made from 100% silicone resin*. Painting not only maintains the aesthetic appeal of buildings but also plays a crucial role in ensuring safety by providing durability (preventing coating degradation and rust formation). However, depending on the paint and application methods, variations in coating performance and quality can occur, leading to coatings that may not be cost-effective in the long run.For new construction, only paints certified as non-combustible by the Ministry of Land, Infrastructure, Transport and Tourism can be used. Similarly, when repainting roofs, it is essential to use certified non-combustible paints. Therefore, we decided to introduce "Sifacoat" to provide high-quality and reliable paints and coatings that meet our customers' expectations.

Features of “Sifacoat”

"Sifacoat" is a special paint made from 100% silicone resin* designed to extend the lifespan of metal structures such as roofs and bridges. It has received non-combustibility certification from the Ministry of Land, Infrastructure, Transport and Tourism, which is a testament to its compliance with strict standards. This certification ensures that both customers and professionals can use this paint with confidence.The long service life of the paint is crucial for protecting metal structures like roofs and bridges. While typical paints have a service life of about 10 to 15 years, "Sifacoat" boasts a service life of nearly 28 years. For example, when installing solar panels (with a service life of about 20 years), applying Sifacoat can significantly reduce the hassle and cost of repainting after the panels are installed. Its anti-corrosion effects are particularly noticeable in areas prone to rust, such as near the sea.

Customer Benefits and Our Responsibility

Our foremost priority is to provide honest and reliable products to our customers. We are committed to ensuring that our customers receive the maximum benefit by offering certified products from third-party organizations and taking responsibility for their proper application. We believe it is our mission to handle everything from product provision to application with utmost responsibility.

1.Prevention of Metal Structure Deterioration**:Prevents deterioration caused by rust due to weather and salt damage.

2.Cost Reduction**: Significantly reduces the substantial time and costs associated with repainting due to degradation.

3.Quality Assurance**:Undergoes various coating performance tests and non-combustibility tests by third-party organizations, ensuring safe usage.

4.Effective Use of Materials**: By applying Sifacoat, various materials can be protected long-term.

5.Paint Safety**: As a solvent-free paint, it is safe for the environment surrounding the application area and for the technicians applying it.

"Sifacoat" is a paint that brings significant benefits not only to our customers but also to everyone involved in the process.

Social Contribution through Sifacoat

By providing safe and highly reliable paints and coatings, we aim to contribute to our customers, stakeholders, society, and the environment. "Sifacoat" is a product that prioritizes trust and quality. Moving forward, we will continue our efforts to create a safe and sustainable building environment with the customer's benefits in mind.

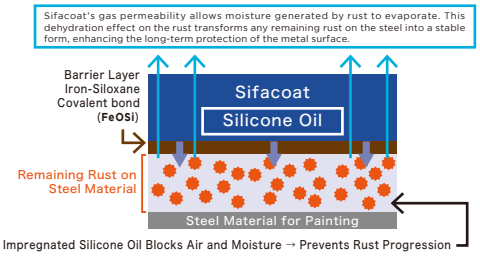
***100% Silicone Resin**
This means that the main polymer component is composed of 100% silicone. Unlike acrylic silicone polymers or urethane silicone polymers, this silicone polymer contains no acrylic or urethane components, resulting in significantly superior coating performance such as UV resistance, and heat and cold resistance.

POINT 01

Durability and Protective Performance

Superior Durability

Sifacoat is an exceptionally advanced paint that offers a range of performance characteristics, including weather resistance, heat resistance, cold resistance, water resistance, breathability, metal adherence, and adhesion. It demonstrates outstanding long-term durability against natural degradation factors such as extreme heat, sub-zero temperatures, and UV rays. The surface features methyl groups that provide water repellency, effectively repelling water and maintaining performance even in rainy and humid environments. In accelerated weathering tests, Sifacoat showed no impact on the coating even after UV exposure equivalent to 28 years.



High Weather Resistance and Salt Damage Resistance

Sifacoat has passed accelerated weathering tests, including UV exposure equivalent to 28 years, ensuring that the coating does not deteriorate over time. This allows for the long-term protection of metal structures such as roofs and bridges. Additionally, as a silicone resin-based paint, it features excellent resistance to salt damage, providing strong anti-corrosion performance.

Heat and Cold Resistance

Sifacoat leverages the characteristics of silicone resin to maintain stable coating performance under extreme temperature conditions ranging from -40°C to 150°C. This ability allows it to accommodate the expansion and contraction of metal, preventing coating deterioration over long periods.

Metal Halide Lamp UV Exposure Test

1680 Hours Exposure Results (Equivalent to 28 Years, 60 Hours ffi 1 Year): No Abnormalities Detected

Test Machine Details

Manufacturer: Daipla Wintec Corporation
Model: KW-R7TP
Filter Lamp: KF-1 (Visible Light + UV Type)

Test Conditions:

UV Intensity: 81 mW/cm2
BP Temperature: 80°C
(Typical tests are conducted at 63°C)
No Spray
Temperature Inside the Chamber During Exposure: Approximately 55°C (No Temperature Control)

Sifacoat

Before Exposure　After Exposure

Urethane Resin

Before Exposure　After Exposure

POINT 02

Painting Efficiency and Environmental Considerations

Efficiency in Painting Work

By reducing the traditional painting process to just 1-2 steps, Sifacoat allows for a significant reduction in work time.

Environment and Human-Friendly

Since no organic solvents are used, Sifacoat has a minimal environmental impact and is safe for workers.

POINT 03

Responsible Application

Application Process

<In Japan>
The application of this paint is carried out by specialized technicians, ensuring responsible application. Skilled technicians perform the work to achieve the highest coating performance.

<Overseas>
We are pleased to offer Sifacoat for sale. If needed, we can dispatch experienced technicians to your location to provide on-site, paid training on the coating application process.

Case Studies Utilizing Features

Application for Solar Panel Installation

This paint can protect roofs for a period exceeding the lifespan of solar panels. By applying Sifacoat when installing solar panels, the metal roof will require minimal maintenance for an extended period after the panels are in place, ensuring long-term protection and reducing the need for frequent repainting.

Application for Structures in Coastal or Salt-Damage Prone Areas

In regions where salt damage is prevalent, applying Sifacoat to metal roofs, bridges, and tanks can significantly prevent rust formation over a long period, thanks to the strong salt damage resistance characteristic of silicone resin. This results in substantial savings on maintenance costs.

"Sifacoat" is a paint that enables long-term protection of metal structures through its long-lasting durability, environmental consideration, and efficient painting process.

Coating Performance Test Results

Item			Value	Test Method
Hardness		Type A	62	JIS K 6249
Tensile Strength (MPa)		23°C No. 3 Dumbbell, 1mm Thickness	2.6	JIS A 6021
Elongation (%)		23°C No. 3 Dumbbell, 1mm Thickness	100	JIS A 6021
Solar Reflectance (%)		Near-Infrared Region	85.6	JIS A 5675
Tear Strength (kgf/cm)			4.98	JIS A 6021
Durability	Hardness (After Curing at 100°C for 28 Days)	Type A	64	JIS K 6249
	UV Resistance	Metal Halide Lamp (Equivalent to 28 Years of Outdoor Exposure)	No Cracks or Other Abnormalities	

JIS A6021 Coating Test

Item			Physical Property Value	Evaluation
Tensile Performance	Tensile Strength Ratio (%)	Test Temperature 23°C Test Temperature -20°C Test Temperature 60°C	2.86 2.61 2.76	No Abnormalities
	Elongation at Break (%)	Test Temperature 23°C	120	No Abnormalities
	Tensile Modulus (N/mm)	Test Temperature 23°C	71.5	No Abnormalities
	Elongation between Grips at Break (%)	Test Temperature 23°C Test Temperature -20°C Test Temperature 60°C	141 133 134	No Abnormalities
Tear Performance	Tear Strength (N/mm)		4.59	No Abnormalities
Heat Expansion and Contraction Performance	Elongation Ratio (%)		-0.70%	No Abnormalities
Tensile Performance after Degradation Treatment	Tensile Strength (N/mm2)	Heat Treatment Accelerated Exposure Treatment Alkaline Treatment Acid Treatment	100.0 88 154 163	No Abnormalities
	Elongation at Break (%)	Heat Treatment Accelerated Exposure Treatment Alkaline Treatment Acid Treatment	130 90 130 140	No Abnormalities
Degradation Behavior during Elongation		Heat Treatment Accelerated Exposure Treatment Ozone Treatment		No Abnormalities

Painting Specifications

Repainting Metal Materials

Item	Dilution	Painting Method	Standard Application Rate	Recoat Time
Surface Preparation	Remove any rust formation, cracks, peeling, etc., using SSPC-SP2 or SSPC-SP3 methods.If there are holes in the material, reinforce with glass cloth using silicone caulking agent.Abrade intact coating areas.Remove dirt, grime, and oil with high-pressure washing, and ensure a dry, clean surface.			
Sifacoat	No dilution	Brush Roller Dedicated Spray	800g/ m2 per coat	Spring, Autumn: 3 hours minimum, within 2 days Summer: 1 hour minimum, within 2 days Winter: 4 hours minimum, within 3 days

New Construction Metal Materials

Item	Dilution	Painting Method	Standard Application Rate	Recoat Time
Surface Preparation	Use power tools to thoroughly remove mill scale and red rust. Abrade other areas as necessary. Completely remove dirt, grime, moisture, and oil.			
Sifacoat	No dilution	Brush Roller Dedicated Spray	800g/ m2 per coat	Spring, Autumn: 3 hours minimum, within 2 days Summer: 1 hour minimum, within 2 days Winter: 4 hours minimum, within 3 days

Usage Restrictions

Sifacoat is not suitable for the following areas and conditions:

- **High Traffic Areas:** Areas where there is heavy foot traffic or frequent movement of objects over the coating.
- **Non-Moisture Barrier Refrigerators and Low-Temperature Tanks:** Areas without a moisture barrier, continuous immersion in water.
- **Unsuitable Surfaces:** Wet, dusty, oily, moldy, chalking, existing surfaces that are blistered, or structurally problematic areas.
- **Surfaces Releasing Oils or Solvents:** Substances that release oils or solvents, such as gaskets, rubber, tape, poorly applied sealants, and mastics.
- **Unverified Adhesion:** Areas where adhesion has not been confirmed through testing.
- **Impending Severe Weather:** If heavy rain, hail, or snow is expected within 24 hours after application.
- **Completely Sealed Environments:** Places that are completely sealed off and lack sufficient atmospheric moisture supply.

Precautions for Handling

Surface Preparation for Painting

Ensure that surfaces to be painted with Sifacoat are cleaned, dried, structurally sound, and free from loose rust, dust, dirt, oils, frost, mold, or any other contaminants. Repair any cracks or holes in the existing roof with glass cloth before painting. Before starting the actual application, conduct an adhesion test on a section of the existing roof to confirm proper adhesion.

Painting Guidelines

Sifacoat generally does not require dilution with solvents. If sedimentation occurs in the container, stir thoroughly before use. Take measures to prevent overspray from reaching nearby buildings, vehicles, and plants. Wet paint can be removed with a dry cloth soaked in the appropriate solvent. Once cured, use a spatula or steel wool soaked in solvent to scrape off the paint. Avoid painting in strong winds and cover or mask areas that should not be painted. Apply Sifacoat evenly using a spray or roller. For multiple coats, refer to the recoating time in the painting specifications. Ensure the finished surface is free from bubbles, pinholes, cracks, or blisters.

Application Temperature

Sifacoat can be used year-round if the surface is completely dry. Frost and water droplets affect adhesion. In low winter temperatures, curing time will be longer, potentially requiring an overnight wait before the second coat or walking on the cured film. In high temperatures, the curing reaction is accelerated, reducing the usable time of the paint. If the surface temperature exceeds 49°C, applying a thick coat may result in a wavy finish. In such cases, increase the number of coats and reduce the thickness of each application.

Weather Conditions

- Postpone work or force dry the substrate until dry after rain or snow to ensure a moisture-free condition.
- Suspend work if rain or snow is expected before Sifacoat cures.
- If the ambient temperature exceeds 40°C, either lower the temperature or stop work.
- Stop work during strong winds.
- If it rains or snows during application, stop work immediately and protect the area from rain.

Painting Methods

Sifacoat can be applied using a dedicated spray, roller, or brush. Use the Graco 'DutyMax GH 675DI' spray machine with components suitable for the required pressure. Use vapor-lock prevention hoses to avoid moisture contamination. Clean out uncured paint from the spray system with mineral spirits. Do not use other solvents. Since Sifacoat cures by reacting with moisture, components like hoses and seals should be made from materials with low moisture permeability to prevent issues such as clogging and pressure increases during prolonged storage. After use, fill the spray system with solvent to prevent moisture reaction.

Storage Conditions

Store Sifacoat in a sealed container in a dry place away from direct sunlight. Do not open the container until use. To ensure an 12-month shelf life, store at temperatures below 43°C. Sifacoat does not freeze even during winter. Once opened, the product will form a cured film on the surface due to moisture in the air. This film formation is less of an issue in winter but can occur within about 10 minutes in high temperature and humidity conditions. When using a spray, remove the cured film from the product surface to prevent clogging. During use, cover the surface with a plastic sheet to minimize the formation of the cured film.

Company Overview

Company Name	Sifacoatings Co., Ltd.
Headquarters Location	34 Tokumoto 3-chome,, Nonoichi-shi, Ishikawa, Japan
Business Hours	9:00 AM - 5:00 PM
Business Purpose	Sales and responsible application of Sifacoat
Establishment Date	March 15, 2024
Representative	Representative Director Akihiro Oda
Sales Area	Sales and responsible Painting: Nationwide in Japan Sales of Sifacoat: Overseas

Sifacoatings Co., Ltd.

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