



Dongguan Yingcai New Material Technology Co., LTD

Create new applications of green chemistry and pursue a sustainable future!

Instructions for Use of Nano Self-Cleaning Coating

Photovoltaic panel nano self-cleaning coating

New nano self-cleaning coating

Glass nano self-cleaning coating

Specifically solving the problem of self-cleaning and self-repair of photovoltaic glass, it has served more than 200 customers.



The first fine chemical manufacturer in the country with advanced technology in automated full process integrated production

1. Safety warning

⚠️ attention

Electrical safety: Before cleaning, the PV system power must be completely turned off (follow the DC and AC side isolation shutdown procedure). Operation with live power is strictly prohibited.

Personal protection: Wear protective gloves, goggles, and slip-resistant rubber shoes with long sleeves and trousers when operating. Avoid contact with skin and eyes

Emergency treatment:

Eye contact: Immediately flush with plenty of water for at least 15 minutes and seek medical attention immediately.

Skin contact: Wash with plenty water. If irritation persists, seek medical advice.

Swallow: Immediately rinse mouth, drink plenty of water, do not induce vomiting and seek immediate medical attention

2. Product overview

Product name: New nano self-cleaning coating

Product Type: Superhydrophilic/hydrophilic/superhydrophobic/hydrophobic self-cleaning nano-coating for photovoltaic

Main ingredients: [For example: nano-silica (SiO_2), nano-titanium dioxide (TiO_2), organic acids, etc.

Product features:

Self-cleaning property: Automatically removes pollutants on the coating surface;

Wide application: can be brushed on a variety of metal, glass, plastic and other surfaces;

Environmental safety: non-toxic and harmless, does not damage the environment, does not harm the skin;

Long-term effectiveness: one spray lasts years.

3. Technical parameters

Item	Appearance	pH Value	Density	(Water Contact Angle)
Parameter	Transparent or translucent liquid	2.5-3.5	0.85 - 1.10	Superhydrophilic $< 5^\circ$; superhydrophobic $>150^\circ$

4. Method of use

Step one

Surface cleaning: Use environmental cleaning agent to thoroughly remove oil and dust on the surface of the substrate, ensuring that the substrate is clean and dry



Step two

Construction method: spraying, rolling or wiping can be used, and professional spray gun can also be used in combination with Yingcai's construction tools to evenly coat the material on the surface of the photovoltaic panel or glass, ensuring uniform coating.



Step three

Construction environment: During the construction process, dust and excessive humidity should be avoided, and it is strictly prohibited to work in bad weather such as rain and wind. After construction, it can be naturally cured, with a surface drying time of 2 hours and a solid drying time of 48 hours. After complete curing, complete nano-film layer will be formed on the surface of the base material, which has excellent anti-fingerprint and other anti-pollution effects.



5. Notes to be taken

⚠ Important notes

1. Safety first

- Wear protective gloves and goggles during construction.
- Please use in a cool and ventilated place, open the bucket cover with a bag covering the bottle mouth, and do not point the bottle mouth at yourself or others.
- The product needs to be sealed and stored in a cool place, away from fire and heat sources, and placed where children cannot reach it.

2. Key Points of Construction

Environmental Monitoring: It is strictly prohibited to construct under rainy, foggy, or when the air humidity is greater than 0% or the board surface temperature exceeds 40°C.

- Ensure construction under clear weather conditions
- Uniformity: The effect of the coating does not depend on thickness but on ultimate uniformity.

3. Subsequent maintenance

- After the coating is cured, dust on the surface of the photovoltaic panel can be more easily washed away by the water flow during rainfall, achieving cleaning.

4. Product storage

- Keep sealed in a cool, dry place, away from direct sunlight.

6. Frequently asked questions

❓ Frequently Asked Questions (Q&A)

Q: How long does it take to see the self-cleaning effect after construction?

A: The first effective rainfall after full curing, you will observe significant water droplets rolling and self-cleaning effects.

Q: What to do if the spray is uneven?

A: If it is found before solidification, it can be immediately wiped off with a dust-free cloth dipped in a small amount of diluent, and then rayed after the diluent evaporates. If it has already solidified completely, it is necessary to wait for the current coating to fail, and pay attention to the technique the next construction.

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