



TECHNOLOGY MAKES LIFE BETTER

安徽省蚌埠市高新区兴中路 985 号日月科技园

电话: 86-552-3827158

传真: 86-552-3822922

安徽艾约塔硅油有限公司

**Iota Corporation Ltd.**

Sunmoon industry park, 985 Xingzhong Road, Bengbu, China 233000

Tel: 86-552-3827158

Fax: 86-552-3822922

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## TDS of IOTA ST1 Waterborne nano high hardness self-cleaning coating

### **Product introduction:**

IOTA ST1 water-based nanometer high hardness self-cleaning coating is emulsion liquid, which is prepared by nanometer coating technology. The product contains nano-materials, which can reduce the surface tension after coating on the substrate surface. Under the action of ultraviolet and visible light, hydroxyl radicals are generated, which have strong catalytic degradation and self-cleaning functions. Effective decomposition of various surface oils. It can effectively kill a variety of bacteria, and can decompose and harm the toxins released by bacteria or fungi. At the same time, it also has the functions of removing formaldehyde, deodorizing, anti-fouling and purifying air.

### **Application:**

Metal surface anti-oxidation, waterproof, anti-pollution treatment, glass surface hate water, anti-pollution, anti-ultraviolet coating, ceramic, stone surface waterproof, anti-pollution, anti-corrosion treatment, solar cell anti-pollution, weather-resistant coating.

### **How to use?**

This product is simple to operate, high fastness, no residue, 10 - 30 minutes after normal temperature spraying or dipping and pulling, then heated at 170 C for 5 minutes, or cured at room temperature for 1-3 days(Noted: 5% ~ 8% curing agent needs to be added for curing at room temperature)

### **Performance:**

- Good hydrophobicity after complete curing, water contact angle of 100 degrees or more, water droplets rolling off water marks.
- Completely transparent and colorless after curing, with high light transmittance.
- Hardness up to 8H, contains nano titanium oxide, anti-aging, long-lasting self-

ADD: Sunmoon industry park, 985 Xingzhong Road, Bengbu, China 233000  
Tel: 86-552-3827158; Fax: 86-552-3822922 Website: [www.iotasilica.com](http://www.iotasilica.com)



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cleaning.

- Easy to operation, water-based paint ,no residue .
- Activated under light condition, nano titanium oxide can have antibacterial and deodorant effect and decompose bacteria and mold.
- Water resistant, no cracking or foaming in boiling water.
- High temperature resistance, use at temperatures up to 200 °C, no change in coating.

A highly dense and stable nano-super-hydrophobic transparent ceramic coating is formed on the surface of the treated object, the hardness can reach 8H, and the dust and dirt attached to the surface can easily slide down with the water, applied to the surface of photovoltaic glass, battery board, glass curtain wall and other objects, it can have the special functions of durable self-cleaning, dust-proof, additional investment, dew-proof, anti-bacterial decomposition of organic substances, etc. Provide more convenience for people's life, and improve the service life of the battery panels.

**Performance and indicators:**

No.	Project	Index	Test standard
1	Appearance	Emulsion liquid	Visual inspection
2	Weight Solid Component	35%	
3	Coating thickness (Wet film)	10-20µm	
4	Coating thickness (Dry film)	1-5µm	
5	Hardness (Pencil hardness)	5-8H	GB/T 6739-1996
6	Adhesion	Level 0	GB/T 9286-1998
7	Colour (After curing)	Transparent coating	
8	Natural hardening time	10min dry, 1-3 days cure	Noted: 5% ~ 8% curing agent needs to be added for



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			curing at room temperature
9	Heat curing condition	10min dry , 170°C , 5min	
10	Shelf life (month)	12 months	

**Packaging and transportation:**

- 25 kg plastic drum or 200 kg iron drum packaging.
- Install in clean and dry containers and store in a ventilated and dry warehouse.
- This product is transported as non-dangerous goods.
- Shelf life: 12 months
- Brand: IOTA