

**Product Features** 

# JM Nanocomposite Material JM-TTA01



JM-TTA01 is a surface treatment with antibacterial and anti-viral functions. Dust particles do not adhere well because of ionic charges on coating surface.

Non-Toxic and Environmentally-Friendly Nano Coat treatment on surfaces.

JM-TTA01 has obtained FDA registration, Registration Number:3010700940.

#### **Product Comparison**

	<b>Technical Comparison</b>	
	1. Nanocomposite material is a neutral aqueous solution, the average particle diameter is small, does not aggregate or precipitate.	
Nano Grade Materials	2. Nano composite material not only oxidises organic matter it can also oxidise bacterial and viral cells. Laboratory test results showed that after UV irradiance of 1 hour our photocatalyst can achieve 99.9% antibacterial rate against E.coli, MRSA, S.aureus, P.aeruginosa and other types of bacteria exhibiting significant anti bacterial properties.	
	3. Material has long term stability, safe and easy storage and is non-toxic to human and is environmentally friendly.	
	4. Can be applied on the majority of organic/inorganic materials, ex. Metal, plastic, glass, textiles and paper materials.	
Non-Nano Grade Materials	1. Titanium dioxide photocatalyst powder is added to acidic organic solvents, the average particle diameter is large. Particles easily aggregates and precipitates.	
	2. Coating adhesion is poor and coat is not uniform, organic solvent decomposes causing flaking and peeling in coating.	
	3. The titanium dioxide photocatalyst is easy to aggregate in the solvent and precipitates	
	4. Only suitable on inorganic materials that are acidproof or heat-resistant	



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### **Product Applications**

Coated sample pieces plate count after 24hr contact time with test inoculum.

E.Coli Test Inoculum 10<sup>5</sup> CFU/ml diluted to 10<sup>2</sup> CFU/ml Plate count.



JM-TTA01 Coated Sample

Non-nano grade material coating





 Broken textiles & Microbac antiviral test report



Refer to JIS Z 2801 Antimicrobial efficacy standard

10 <sup>5</sup> CFU/ml->10 <sup>2</sup> C Colony Forming U	Antibacterial Activity*		
Test Inoculum	254	-	
JM-TTA01 Coated	1	R>3	
Non-nano Grade Coated	231	R<2	
* Antibacterial activity (R), R shall be >			

2 for Antibacterial effectiveness.

#### **Product Certification:**

TN-050 Verification and Validation Standard on Nano Antibacterial Paint



JM Material Technology Inc. Tel.886-3-2860499 Fax.886-3-3560499 http://www.jm-tech.com.tw