

# JM Nanocomposite Material

## JM-TS001

### Product Features



JM-TS001 is a surface treatment with self-cleaning, anti-dirt, air purification and VOC-decomposition functions. Dust particles do not adhere well because of ionic charges on coating surface.

Non-Toxic and Environmentally-Friendly Nano Coat treatment on surfaces. Excellent Heat-Resistance (up to 500°C)

### Product Comparison

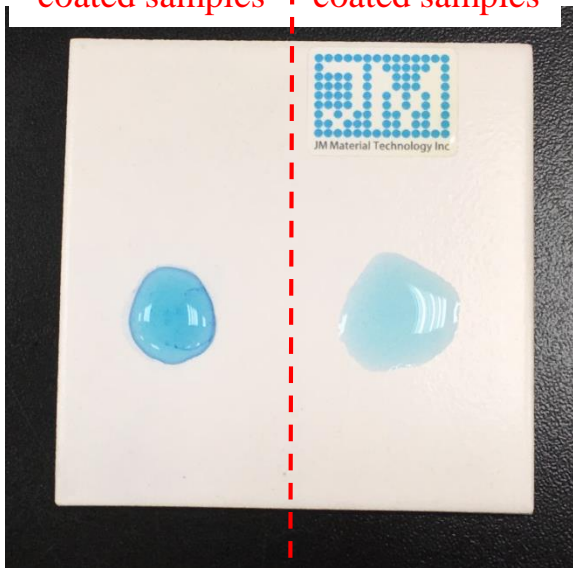
	Technical Comparison
<b>Nano Grade Materials</b>	<ol style="list-style-type: none"> <li>1. Nanocomposite material is a neutral aqueous solution, the average particle diameter is small, does not aggregate or precipitate.</li> <li>2. Nano composite material exposed to light produces electron hole pairing; these electron hole pairings have strong oxidizing abilities that take advantage to decompose grease and dirt attached to the surfaces of these objects.</li> <li>3. Material has long term stability, safe and easy storage and is non-toxic to human and is environmentally friendly.</li> <li>4. Can be applied on the majority of organic/inorganic materials, ex. Metal, plastic, glass, textiles and paper materials.</li> </ol>
<b>Non-Nano Grade Materials</b>	<ol style="list-style-type: none"> <li>1. Titanium dioxide photocatalyst powder is added to acidic organic solvents, the average particle diameter is large. Particles easily aggregates and precipitates.</li> <li>2. Coating adhesion is poor and coat is not uniform, organic solvent decomposes causing flaking and peeling in coating.</li> <li>3. The titanium dioxide photocatalyst is easy to aggregate in the solvent and precipitates</li> <li>4. Only suitable on inorganic materials that are acidproof or heat-resistant</li> </ol>

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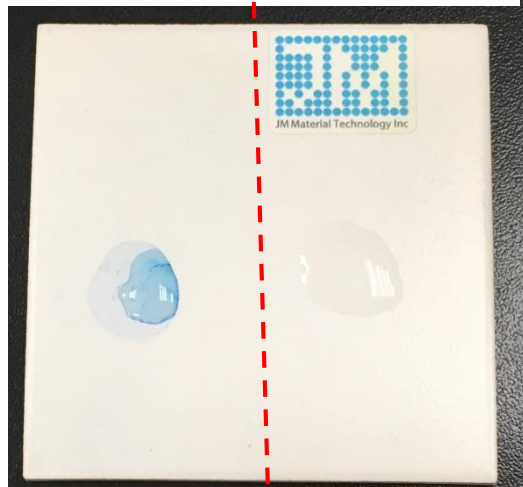
### Product Applications

Non-nano grade coated samples | JM-TS001 coated samples



Dye Solution (Methylene Blue) Degradation Test: Drop 1ml of 5ppm Methylene blue solution on each coated surfaces then activate with UVC light for 7 minutes.

Non-nano grade coated samples | JM-TS001 coated samples



Comparison of methylene blue degradation test. Before UVC light activation(above) and after UVC light activation (right). Results demonstrating JM-TS001 coating has higher efficiency.

- Kaoshung Apartment exterior
- Tai Yuen Hi-Tech Industrial Park



### Product Certification:

TN-031 Verification and Validation Standard on Self-Cleaning Nano Photocatalyst Paint