

TITANCARE® FF

TECHNICAL DATA SHEET V2.2 PRODUCT INFORMATION

ADVANCED NANO COMPOSITE MATERIAL APPLICATION



General Description

- Nano Coat treatment for rapid decomposition & removal of formaldehyde pollutants to provide a safer living and working environment approved
- Tested by worldwide renowned authorities such as MICROBAC®, SGS

Features

- excellent decomposition of formaldehyde pollutants
- anti-odor
- colorless & transparent
- environmentally friendly
- perfect adhesion and durability on any material like wood, cement, ceramics, stone and varnished, products

Applications

as a protective and preventive measure in areas of

- health and medical
- food processing industries
- gastronomy and hotels
- merchandising and retail
- offices and public spaces
- OEM applications like glass, solar panel and window production, lighting and medical equipment, refinery and tank facilities, filter and industrial plant builders, wood industry,

Standard Packing

1kg bottle, 20kg/plastic drum & 200kg/plastic drum

Storage

Please store under room temperature 25 °C, humidity > 45% with good ventilation and avoid exposure to direct sunshine. Keep container sealed after opening. Shelf-life 1 year from date of manufacture.

Typical Physical Properties

These properties are typical but should not be considered specifications.

Item		Unit	Spec
Character	Appearance	-	Transparent solution
	Composition	-	Resin H ₂ O
	Solid Content	wt%	10 ± 1
	pH value	-	8.0~10.0
	Viscosity	25°C mPa s	<35
	Density	25°C	1.04
	Freezing point	°C	4
Safety	Oral acute toxicity	LD50(mg/kg. mouse)	>5000mg/kg
	Primary skin irritation	Primary irritation index	0

Reference Data

Item	Method	Condition	Unit	Result
Appearance	-	Color difference		None ¹⁾
Formaldehyde decomposition rate	JC/T 1074	%		>99% ²⁾ [Taiwan SGS]
		%		>98% ³⁾ [China CIETC]

¹⁾ Spray 20g/m² on the substrate (wood plastic)

²⁾ Methodology: Per JC/T 1074:

Spray 30g/m² on both sides of glass specimen (30c30cm).

Place 3 pcs into a 1m³ container, pour formaldehyde gas (10ppm), subject to fan-speed of 0.9~1.1m/s. Take sample readings after 1 hour.

³⁾ Tested by National Center for Quality Supervision (CIETC).

Test Specifications: Indoor and Vehicle Environment and Environment Products.

Coating amounts	Formaldehyde emissions
Plywood(9m/m)	1.35ppm
Spray 20g/m ²	0.27ppm
Spray 30g/m ²	0.27ppm
Spray 40g/m ²	0.19ppm

Formaldehyde Emissions Test (JIS A 1460 – Japanese F4 Star Standard) Specifications: <0.3mg/L concentration

Length of time	Formaldehyde emissions
Plywood(9m/m)	0.89ppm
Spray 30g/m ²	0.24ppm
One month	0.19ppm
Two months	0.22ppm
Three months	0.22ppm

Recommended Application Process

1. Equipment

- a) Spraying: Spray gun, nozzle diameter 0.3~1mm, air pressure 0.3~3kg under room temperature 10~40 °C
- b) Brush coating

2. Process

- a) Ensure a thorough cleaning of the substrate surface.
- b) Apply Nano Coat after cleaned surface is dry
- c) Spraying (ensure minimum of 30 cm distance from the nozzle to the surface) or brush coating
- d) Rinse equipment with water after application.

The data above is for reference only. Rubberized surfaces may require plasma treatment.

Please use the materials based on actual substrate & environment.

Storage

Please store under room temperature 25°C, humidity>45% with good ventilation and avoid exposure to direct sunshine. Keep container sealed after opening.

Shelf-life

6 months from date of manufacture.

Safety & Notice

1. In order to ensure product reliability, please apply under clean environment.
2. Keep containers sealed after opening and store under recommended environment.
3. Minimum Storage temperature = 5°C, ensure good ventilation.
4. Precipitation and slight color change to light yellow is normal.
5. Please refer to Safety Data Sheet (SDS) for more details.

Product Stewardship

Scutum Nano Solutions GmbH encourages its customers to ensure that our products are not used in ways for which they are not intended or tested. Our personnel assist you to answer your questions and to provide reasonable technical support. Scutum Nano Solutions GmbH safety data sheets should be considered prior to use.

Disposal

Disposal according to official regulation, not contaminated and completely emptied packaging can be recycled.

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