



# Photocatalytically active coating for air-cleaning virus degeneration and odour neutralisation (indoor use)

## TA2219



### TECHNICAL BENEFITS

- Suitable for indoor plasters, wallpapers, painted surfaces.
- Selfcleaning surface activated by UV light and visible light
- Creates hydrophobic surface
- Bonds with substrate
- Low application rate 30 - 100 ml/m<sup>2</sup>
- Full transparent coating
- No change of look-and-feel of host-material
- Fast drying 30 to 60 minutes
- Free of solvents
- Contains no biocides
- Long durability of 5 to 10 years when not subject to washing regularly

### OPERATIONAL BENEFITS

- Degenerates viruses, bacteria and pollen from the air and from interior surfaces
- Prevents organic growth like mold, algae or moss
- Digests organic pollution like bird droppings, soot, stains etc.
- 90m<sup>2</sup> treated surface = filter capacity of 8 mature oak trees
- Minimizes need for cleaning
- Application by ESS or HVLP
- Easy to touch-up during replacement or repair of surface
- Maintains pristine appearance of treated surfaces
- Non-hazardous, easy to transport

### FINANCIAL BENEFITS

- Low cost per m<sup>2</sup>
- Minimizes cost for cleaning agents and soaps
- Minimizes repair and replacement costs due to pollution
- Reduces cost for ill personnel

NanoProf's Nadicare® TA2219 Hygiene is a very fine, **water-based titanium-dioxide dispersion**. Its formulation is a photocatalytically active coating and is fully transparent. Upon radiation with light, the coatings will release oxygen radicals from the ambient air and thus decompose solid and gaseous substrates by oxidation („cold combustion“).

TA2219 is active under UV light (sunlight) as well as under artificial light up to a wavelength of 475 nm, at a minimum of 150 LUX. It can be used indoors only.

Firstly, NanoProf's Nadicare® TA2219 Hygiene is designed to protect surfaces against all organic growth.



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The effect of photocatalysis is supported by H<sub>2</sub>O. TA2219 is designed for various indoor surfaces, but NOT suitable for glass, glazed tiles and plastics.



## Description

NanoProf's Nadicare® TA2219 Hygiene unites the advantages of photo catalysis with the unique capacity of nano-

## Application

technology. Instead of sticking mechanically on the surface (like waxes or foils do), the use of nanotechnology ensures that the NanoProf's Nadicare® TA2219 coating bonds into the surface chemically. The active self-cleaning characteristics of titaniumdioxide will not exhaust.

NanoProf's Nadicare® TA2219 Hygiene is not suited for glass, glazed tiles and plastics. nC® Nadicare® TA2219 is suitable for industrial application. The application quantities depend on the application method and on the absorption rate. Technical consultation at nanoprofs holland R&D dept. is strongly recommended.

- Do not eat, drink or smoke during application.
- Surface must be clean and free from kit, glue, grease, mold or moss.
- Rinse with clean and fresh water to remove soap residues.
- Surface must be dry.
- Ambient temperature during manual application must be at least 18° C.
- Do not apply when ambient humidity exceeds 80%.
- Do not apply in a dusty environment.
- Wear protective gloves during application. Wear safety goggles during application.
- Shake container well for a minute.
- Use ESS or HVLP for application, textiles and smaller items can be bathed.
- Recommended application quantities: ○ Plain surfaces 30 ml/m<sup>2</sup> ○ Textured surfaces 60ml/m<sup>2</sup> ○ Absorbent surfaces 100 ml/m<sup>2</sup>
- On dark surfaces please apply primer NanoProf's TP2223® (15 to 40 ml/m<sup>2</sup>) first and reduce the above mentioned application quantities fo TA2219 by approx. 25 %.
- Let dry for 30 to 60 mins



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### Application

- Item is now ready to use.
- Put left-over NanoProf's Nadicare® TA2219 in container and use-up within 4 weeks after first opening of original.
- NanoProf's Nadicare® TA2219 will deteriorate fast when dirty or greasy items are coated without cleaning.
- Clean tools, spraynozzles with water immediately after every stop.
- Wash hands and face after every stop.

As the technology is about bonding particles into surfaces, matrices of particles need to be built up after application. The treatment reaches full performance AFTER a cure time of approximately 24 hours, which is dependent upon environmental variables, humidity and heat applied. Tests for performance should be done after full cure. However,

### Limitations

the surface can be used and exposed 60 minutes after application.

- Do NOT apply on marble.
- Re-apply regularly on paths or walking areas that are in heavy use.
- When installing over poor, greasy or dirty surfaces, the bonding of NanoProf's Nadicare® TA2219 will become erratic, and so will the results be.
- Do NOT freeze product or store in subzero areas.
- Do not allow application during freezing temperatures.

### Logistic info

- The selfcleaning effect will not occur in poor visible light, the effective light spectrum is < 475nm for artificial light.
- Store NanoProf's Nadicare® TA2219 at temperatures between +5° C and +30° C.
- Store NanoProf's TA2219® for max. 1 year in unopened containers counting from production date.
- Storage life for opened containers is 4 weeks, keep containers tightly sealed and store in a dark place.



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- **Avoid freezing product.**
- NanoProf's Nadicare® TA2219 is available in 5x1L, 5L, 25L and 200L containers.

### Logistic info

- Never use pressure to empty containers.
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- UN number DOT, IMDG, IATA: None
- Shipping name DOT, IMDG, IATA: None
- Transport hazard class DOT, IMDG, IATA: None
- Packaging group DOT, IMDG, IATA: None

### Typical properties

- Environmentally hazardous: No
- Marine pollutant: No
- TiO<sub>2</sub> , H<sub>2</sub>O
- Appearance: Yellowish transparent
- Active material: 2,3% – 2,5% by weight
- Effective light spectrum: up to 475 nm
- pH value: approx. 8,0
- Primary particle size: < 8nm
- Specific Density: 1,023 g/ml



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