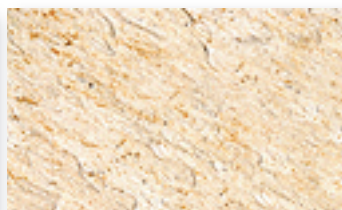


Nanotechnology is one of the most promising technologies of the world. It is less a technology - it is more an umbrella term for a multitude of applications and products which consist of tiny particles and thereby get very special and even complete new properties.

TitanShield® uses the property of photocatalytic titanium dioxide. This technology is not new but due to advanced manufacturing techniques, smaller dimensions of particles and doping with noble metals new applications were found, which were considered as utopia recently.

TitanShield®-products are photocatalytic. Exposed to light TitanShield® produces oxygen radicals on the surface. The activated oxygen decomposes organic molecules and dirt particles that get in touch with the surface. This way odorous substances, air pollutants, viruses, spores and bacteria will be destroyed.

## TP2221



### Description:

TP2221 is a product of the chemical nanotechnology. Due to a modification of the molecular structure the photocatalytic reactivity of  $TiO_2$  is prevented. On the basis of this new property the product is exceptionally well-suited as a primer before application with active titanium dioxide or as a UV-protect-coat. TP2221 has an excellent bonding capacity on all surfaces.

### Application area:

- ▶ **Primer (Groundig) for all raw and absorbing surfaces**

### Properties:

- Primer for protecting organic substances from oxidative damages
- Grounding for a better bonding capacity with an active TA-application
- Primer for reducing the application quantity of the active TA-product in case of very absorbing surface
- UV protection

### Form of application:

HVLP-spray-technique is recommended.  
Rolling, painting, dipping.

**In combination with an active material of the TA-series an application "wet in wet" is possible.**

Please find further detailed information according HVLP-technique or industrial application in the application data sheets.

### Technical data:

<b>Ingredients:</b>	$TiO_2$ , water
<b>Appearance:</b>	yellowish-transparent liquid
<b>amount of <math>TiO_2</math>:</b>	ca. 0,65 - 0,9 %
<b>PH value:</b>	ca. 7
<b>Particle size:</b>	<3 nm
<b>Agglomeration index:</b>	<10
<b>Relative density:</b>	1,0060 g/ml

### Drying:

30 minutes / 72 hours	at 20°C
15 minutes / 120 minutes	at 75°C

Drying time depends on temperature and humidity during process of application.

### Defensibility of the coating:

At least 10 years when application occurs according to instructions.

### Status of registration:

Product and/or ingredients are listed in:  
CAS, EINECS, TSCA, AICS, CEPA, MITI

### Transport:

No hazardous material for air-, ship- or rail-transport.

### Storage:

Twelve months in closed original container. Store in the darkness. Storage temperature : 5 to 45°C

### Package size:

5 litre, 25 litre in plastic container  
100 litre, 200 litre in storage-jar

### References:

Follow general danger warnings / safety data sheet during handling chemicals. Never mix chemical products.

