

## Project:

High quality water based **tunnel** paint for concrete surfaces

## Product:

**SurfaPaint Tunnel Paint**

## Benefits:

- Excellent adhesion to concrete, slabs, pavement.
- Easy to use, single component (1K)
- Water based with low VOC
- Fast drying
- Recoatable within 120min

## Applications:

Pedestrian or vehicle traffic tunnel sidewalls and/or ceilings

## Colour:

SuperWhite and tinted upon request

## Packaging:

18L Plastic Pails

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## SurfaPaint Tunnel Paint

### High quality water based tunnel paint for concrete surfaces

Concrete sidewalls and/or ceilings in tunnels are sensitive surfaces which require special coating protection. Traditional solutions such as polyurethane or epoxy coatings require special mixing/application skills, extensive labour time and they are not easily repairable. Moreover, such systems are flammable and hazardous. Low cost, cement-based alternatives require annual re-application that proves expensive in the long-run. Additionally, they lack reflectivity and their high dirt pick-up does not comply with driving safety standards. Unlike traditional options, SurfaPaint Tunnel Paint offers an easy, safe, fast and long-lasting solution to the coating of tunnels. It was developed to address the needs of easy application, durability and solid adhesion on concrete surfaces. This paint is specially developed for the construction features of tunnels. It is able to reflect the light even in sub-standard illuminated tunnels providing safer driving conditions. SurfaPaint Tunnel Paint provides a solution to a common problem: tunnel coatings are prominent to mould creation. SurfaPaint Tunnel Paint combines mould resistance characteristics to keep the coated surface away from mildew, algae, even on a wet sidewall. All-in-all, SurfaPaint Tunnel Paint is ideal for use on concrete surfaces, like heavy vehicle tunnels, as it has excellent wear, mould and weather resistance.

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Nanotechnology 

## SurfaPaint Tunnel Paint Description

SurfaPaint Tunnel Paint applicability, durability and mould resistance is based on the binding resin which combines the excellent physical resistance properties of polyurethanes with the binding and wetting properties of acrylic emulsions. Upon application, the physical curing process yields a tough, resilient film. The end-result combines unique functionality by an easy to clean, reflectance and wearing resistant coating. Practically, SurfaPaint Tunnel coating is easy-to-clean from exhaust emissions preserving effectively the original aesthetic integrity of the surface applied. Durability of the coating permits long-lasting vehicle tunnels.

### International Standards Testing

**Viscosity at 25°C (ASTM D562-10):** 135±5 KU

**Adhesion (ISO 2409:2007):** Excellent (Cross-cut test result 0)

**Stain Resistance:** Class V (no staining)

**Weathering Resistance:** Passes the 1500h QUV-B weathering test

**Density (ISO 2811-1):** 1.26±0.05 g/cm<sup>3</sup>

**Applicability:** SurfaPaint Tunnel Paint can be applied directly on concrete surfaces such as vehicle tunnels. New cement substrates should have cured for more than 4 weeks before application. Adverse environmental conditions and/or humidity (>80%RH) during or immediately after application may affect the coating's performance or drying properties. **Preparation:** Ensure all surfaces are clean and dry prior to application. Remove any dust and dirt. **Application note:** Stir thoroughly with a flat paddle until homogeneous and occasionally during use. Application temperature should be between 10 - 40 °C and the relative humidity should be between 10% - 80% RH. Dilute paint up to 30% with water to use it as a primer (if required). Apply 2 coats diluted at 15% with water using a good quality brush, roller or by airless spraying. **Spreading Rate:** 10 m<sup>2</sup>/L at 45 µm. **Drying Time:** Touch dry: 30 min at 25°C, Overcoating: 2h at 25°C. Low temperatures and high humidity will lengthen drying times. **Cleaning of tools:** All tools and equipment should be cleaned immediately after use with water. **Storage:** Store in a cool, dry, well-ventilated area away from heat and direct sunlight. Carefully reseal partly used containers. Protect from frost. To avoid risk of spillage, always store and transport in a secure and upright position. The shelf life of the product in airtight containers is 24 months post production date. Dispose of empty container responsibly and according to local legislation. **Safety:** Keep out of reach of children. Avoid breathing dust / fume / gas / mist / vapours / spray. Use only outdoors or in a well-ventilated area. If swallowed: Immediately call a poison center or doctor/physician. Do not use empty container for storing food. Avoid contact with skin and eyes. After contact with skin wash immediately with soap and water. Do not use solvent thinners. In case of contact with eyes, rinse immediately with plenty of water and if necessary seek medical advice. **VOC (Volatile Organic Compounds):** Maximum EU VOC content limit value (Directive 2004/42/CE) of the product in a ready to use condition (category A/i "one-pack performance coatings", Type WB): 140 g/L (2010). **Maximum VOC content of this product is 82 g/L.**

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## What is Nanotechnology?

Nanotechnology refers to the scientific field, which deals with the research and creation of small matter particles, usually sized below 100 nm. One nanometer (nm) is one billionth of a meter (10<sup>-9</sup> m) - it is so small that if earth were one meter in diameter, then one nanometer would have been the size of an apple! Nanosized materials reveal unique properties when compared to ordinary, bulk materials or even molecules.

## NanoPhos at a Glance...

At NanoPhos, we take advantage of the unique properties of nanotechnology and invent clever materials that solve every day problems. By harnessing nanotechnology, we seek to create a more comfortable, safe and trouble-free living environment. We transfer innovations out of our lab and into the hands of consumers. Our vision is clear: "Tune the nanoworld to serve the macroworld" – in simple terms we make nanoparticles solve common problems. NanoPhos was recognized in January 2008 by Bill Gates as one of the most innovative companies and also received the 1<sup>st</sup> prize for innovation at the prestigious 100% Detail Show in London. NanoPhos is a rapidly growing company that is actively expanding its distribution network. Currently, the company is present in the UK, Norway, Sweden, Denmark, Portugal, Spain, France, Italy, Greece, Cyprus, Egypt, Sudan, Saudi Arabia, Bahrain, UAE, Qatar, Oman, Iran, India, New Zealand, China, Japan, Mexico, Guatemala, Thailand, Malaysia and Singapore.

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NanoPhos SA has been approved by Lloyd's Register Quality Assurance to follow the EN ISO 9001:2000 Quality Management System and the environmental management system EN ISO 14001:2004 for the development, production and sales of chemical products for cleaning and protection of surfaces and nanotechnology products. Furthermore, it is certified for occupational health and safety management systems with OHSAS 18001:2007.

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