

Project:

High quality water based tunnel paint for concrete surfaces

Product:

SurfaPaint Tunnel Paint

Applications:

Pedestrian or vehicle traffic tunnel sidewalls and/or ceilings

Benefits:

- High reflectance and whiteness increase contrast and driving safety
- Excellent adhesion to concrete walls
- Easy to use, single component (1K)
- No hardener required
- Does not set in pail - store and reuse - Extended pot life
- Water based, without hazardous solvents
- Satin finish
- Fast drying
- Touch-dry within 30min
- Recoatable within 120min
- Saves time, effort and labor cost: Tunnel coating can be concluded within a working day.
- Easy application by brush, roller or airless spray.
- Easily cleanable equipment after use: rinse with water.
- Good adhesion to surfaces previously painted with water based paint.

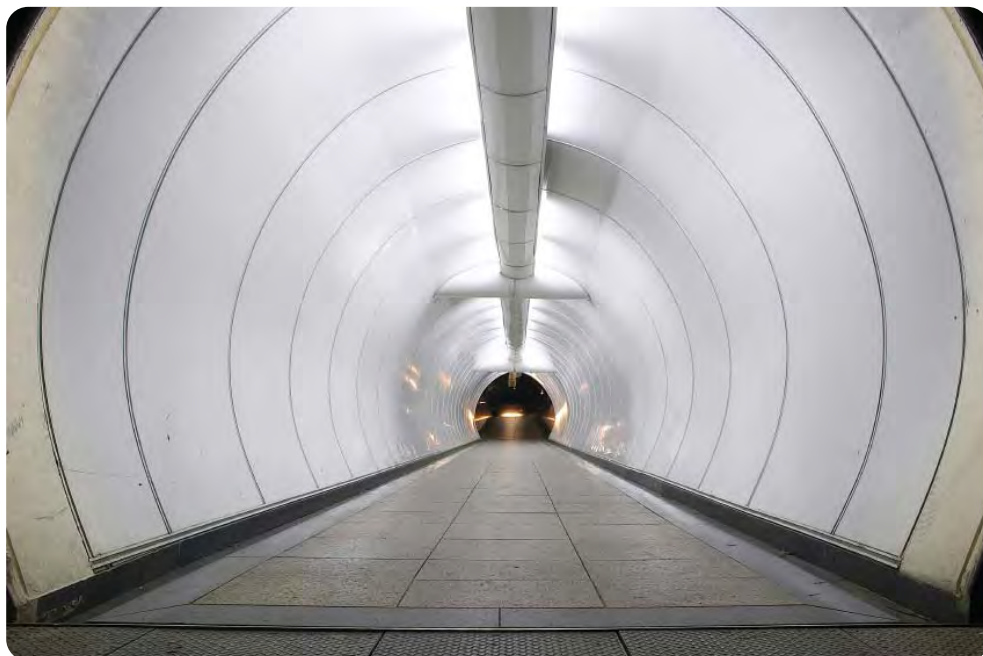
Colour:

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. To add discomfort to inconvenience, solvent-based polyurethane or epoxies have a strong, unpleasant, chemical smell. 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 driving safety standards.

Unlike traditional options, SurfaPaint Tunnel Paint offers an easy, safe, fast and long-lasting solution to coating of tunnels. It was developed to address the needs of applicability, durability and solid adhesion on concrete surfaces. This paint is specially developed for the construction features of tunnel. It is able to reflect the light even in sub-standard illuminated tunnels providing safer driving conditions.

SurfaPaint Tunnel Paint is a completely water based formulation of acrylic resins, cross-linked with nanoparticles to enhance adhesion and promote durability. It combines the comfort and hassle-free application of exterior acrylic paints with the endurance of traditional, solvent-based coating systems.

Additionally, it provides a solution to a common problem: tunnel coatings are prominent to mold creation. SurfaPaint Tunnel Paint combines mold 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 in concrete surfaces, like heavy vehicle tunnels, as it has excellent wear, mold and weather resistance.

SurfaPaint® logo is registered trademarks of:
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Nanotechnology 

SurfaPaint Tunnel Paint Description

SurfaPaint Tunnel Paint applicability, durability and mold resistance is based on the binding resin and nanoparticles technology developed. The cross-linking of the formulation resin 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.

Technical Characteristics

Appearance: Satin. Sheen level depends on the substrate finish/profile.

Colour: Super White and tinted upon request for volumes exceeding 1000L.

Solids: Approx. 53 % by mass; 44 % by volume (typical super white).

Specific Gravity: 1.30 g.mL⁻¹ (typical super white).

Recommended DFT (Dry Film Thickness): Min: 30 - 45 µm per coat.

Viscosity at 25°C: 135 KU +/- 5 KU

Adhesion: Excellent (Cross-cut test result 0)

Compressive Strength: 70 N.mm⁻²

Stain Resistance: Class V (no staining of grease, oil and household stains)

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

Flash point: >100°C (Non-flammable)

Theoretical spreading rate: 10m²/L per coat at 45µm

Practical spreading rate: The practical spreading rate will vary depending on the porosity and profile of the substrate, as well as the application technique and tools used.

Application: 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, dirt and flaking parts.

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%. 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.

Drying Time: Touch dry: 30 min at 25°C, Overcoating: 2h at 25°C.

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 18 months after production date (see on packaging).

Safety: Keep out of reach of children. Do not use empty container for storing food. Avoid contact with skin and eyes. After contact with skin wash immediately with soap and. Do not use solvent thinners. In case of contact with eyes, rinse immediately with plenty of water and if necessary seek medical advice. If swallowed seek medical advice immediately and show this container or label. Do not empty into drains or watercourses. Dispose of empty container responsibly and according to local legislation.

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 70 g/L.**

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What is Nanotechnology?

Nanotechnology refers to the scientific field, which deals with very small structures, usually sized below 100 nm. One nanometer (nm) is one billionth of a meter (10⁻⁹ 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 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 of 2008 by Bill Gates as one of the most innovative companies and also received the 1st prize for innovation at the prestigious 100% Detail Show in London. SurfaShield technology, received the prestigious GAIA award at the 2010 International Building and Construction Show BIG5 in Dubai for its environmentally friendly and innovative profile. NanoPhos is a rapidly growing company that is actively expanding its distribution network. Currently, the company is present in the UK, Scandinavia, Germany, Portugal, France, Italy, Romania, Greece, Cyprus, Georgia, Turkey, Egypt, Saudi Arabia, Bahrain, Qatar, UAE, Iran, India, Thailand, China, New Zealand, Japan and Mexico.

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NanoPhos SA has been approved by Lloyd's Register Quality Assurance to follow the EN ISO 9001:2008 Quality Management System and EN ISO 14001:2004 Environmental Management System for the production and sales of chemical products for cleaning and protection of surfaces and nanotechnology products.