Project:

Protection of vertical surfaces from spray paint graffiti, permanent marker and stains

Product: SurfaPore AG (Anti-Graffiti)

Key Benefits:

- Anti-graffiti properties
- Graffiti is cleaned just by water
- Does not change natural appearance
- Long Lasting & UV Resistant
- Makes cleaning easier
- Easily Applicable
- Cost Effective

Applications:

- Acts as a barrier to spray paint graffiti and permanent marker stains
- Seals micro-pores of polished surfaces without creating a film
- Protects vertical surfaces, such as tiles cladding, unpainted or plaster walls and marbles

Packaging: 30L Containers, 1000L IBCs

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SurfaPore® AG

Nanotechnology for protecting marble, porcelain surfaces and walls from graffiti staining

Graffiti staining on marbles, porcelain tiles and vertical walls can be disastrous for these valuable surfaces. Microscopic analysis of these surfaces reveals multiple interconnected pores that readily collect graffiti paint resulting in loss of their natural appearance. Cleaning them requires significant effort and some stains may be impossible to remove. SurfaPore AG (Anti-graffiti) can be easily applied on your existing or new surfaces to preserve their appearance. It creates an impermeable and invisible barrier by blocking even the finest pores of these surfaces.

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SurfaPore AG Description

SurfaPore AG (Anti-Graffiti) is a water based graffiti protectant. It contains nano-sized particles that fit into the pores of a surface, penetrate, "flood" and seal the pores that can accumulate graffiti. These nanoparticles have the ability to self polymerize and create an impermeable 3D network which binds permanently onto the pores and the surface. Paint simply sits on the top of the 3D network and does not adhere to the surface.

The effectiveness of SurfaPore AG on graffiti spray paint, permanent markers and pen was evaluated in different building substrates (e.g. marbles, porcelain tiles, unpainted walls and stones). Graffiti stains left to cure for 24 hours after each application and was cleaned just with warm water and a stiff brush. The treated surface effectively repels graffiti stains up to 7 times without the need of re-applying.



Graffiti application

After cleaning with water

Application Note

The application surface should be dry and clean. No dilution is required. 2 applications of SurfaPore AG can be applied by brush, roller or spray gun on the existing vertical surfaces. For non-absorbing surfaces (shiny marbles, granite surfaces), remove any excess by using a damp absorptive towel or paper. Continue polishing the surface, until no apparent wet residue is visible on the surface. Absorbing surfaces (plaster, flamed stone) will absorb most of the applied SurfaPore AG. Ensure that there is no wet residue left after 5 minutes from application, by using a moist cloth. It is recommended to remove graffiti as soon as possible from the damaged surfaces. To achieve that you have to use a stiff brush and warm water, or alternatively a steam cleaner is ideally recommended. You have to re-apply SurfaPore AG after 5-7 graffiti removals for polished surfaces and 3-4 for other surfaces. Maximum effectiveness is achieved a week after application. **Consumption:** Estimated consumption

rate 24-30 m²/L for polished surfaces and $8-10 \text{ m}^2/\text{L}$ for other surfaces.

Physical Properties

Yellow, water emulsion with slight odour and pH= 11.0 ± 0.5 . Density: 1.05 ± 0.05 g·cm⁻³ Viscosity: 2 cP. SurfaPore AG is not considered an oxidant. VOC Content: 33 g/L.

Safety & Storage

Highly flammable liquid and vapour. Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. May produce an allergic reaction. Keep away from heat / sparks / open flames / hot surfaces. No smoking. Keep container tightly closed. Avoid release to the environment. Wear protective gloves / protective clothing / eye protection / face protection. IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower. If skin irritation or rash occurs: Get medical advice / attention. Avoid breathing dust / fume / gas / mist / vapours / spray. Use only outdoors or in a well-ventilated area. Avoid freezing. Expiration Date: 18 months after production date.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY. The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that NanoPhos' products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent. NanoPhos specifically disclaims any other expressed or implied warranty of fitness for a particular purpose or merchantability. NanoPhos disclaims liability for any incidental or consequential damages. This product is neither tested nor represented as suitable for medical or pharmaceutical uses.



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^{-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 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 1st 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.