

## Project:

Industrial additive for the paint industry to produce a water repellent, beading additive for emulsion paints, wood stains and render or plaster

## Product:

SurfaPore Aqua X Additive

## Key Benefits:

Production of functional paints with the following characteristics:

- Extreme water beading
- Reduces dirt pick up
- Early water resistance
- High Breathability
- Prevents water absorption
- Reduces brush, roller and lap marks
- Water based with low VOC
- Environmentally friendly

## Applications:

Early grinding stage additive for:

- Emulsion paints

## Packaging:

200Kg Barrels  
1000Kg IBC tanks

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# SurfaPore Aqua X Additive

**Early Grinding stage Additive for the production of Waterproof, Water-beading Paints**

SurfaPore Aqua X Additive is a water based liquid formulation, developed and produced by NanoPhos SA, that provides effective water repellency to any water - based topcoat formulation. Ideal additive for paint coatings applied on buildings in urban areas or seaside, where increased levels of humidity exist. It transforms conventional paint coatings to waterproof. The addition of SurfaPore Aqua X Additive prevents the external humidity and rainwater from penetrating into the building substrate, reducing cracking and swelling. The extreme beading effect is essential for end-users to understand the power of nanotechnology against water ingress.



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**NanoPhos**  
Pioneering  
Nanotechnology 

## SurfaPore Aqua X Additive Description

SurfaPaint Aqua X is a water repelling paint additive that protects the masonry surface while it allows it to breath. As it repels water and reduces water absorption, it prevents premature paint failure and mould growth. Subsequently, the substrate is efficiently protected and therefore not affected by external, weathering factors. SurfaPaint Aqua X Additive exhibits its functionality for a long period of time, extending the life of the paint coated surface. Hydrophobic properties of a SurfaPaint Aqua X Additive are depicted below.



Water droplet on painted surface with conventional paint  
Contact angle: 60°



Water droplet on painted surface with SurfaPore Aqua X Additive+paint  
Contact angle: 126°

## How SurfaPore AquaDry Additive is used?

Just before the addition of conventional titanium dioxide or fillers, during the grinding stage, SurfaPore Aqua X Additive is added in a mass quantity that accounts for 15%w/w of the final formulation. *Breathability performance:* Class I, according to ASTM D1653 - *Standard Test Methods for Water Vapor Transmission of Organic Coating Films.*

**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 post production date. **Safety:** Causes serious eye irritation. Causes skin irritation. Harmful to aquatic life with long lasting effects. Wash . . . Avoid release to the environment. Wear protective gloves / protective clothing / eye protection / face protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice / attention. **VOC (Volatile Organic Compounds):** Maximum VOC content of this product is 2,5 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 ( $10^{-9}$  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 to 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.