

## Project:

Thermal insulation & water-proofing of exterior and interior paints. Protection against mould growth.

## Product:

SurfaPore ThermoDry®

## Benefits:

- Helps in conserving energy by increasing the energy efficiency of buildings
- Makes paint insulating & water repelling
- Protects against mould growth
- Extends paint lifetime
- Increases paint volume by 60%

## Applications:

- External and Internal wall surfaces, and wherever water based, acrylic paints are applied.

## Packaging:

Containers for diluting 2,5L, 3L, 4L, 5L, 10L and 18L of acrylic water based paint.

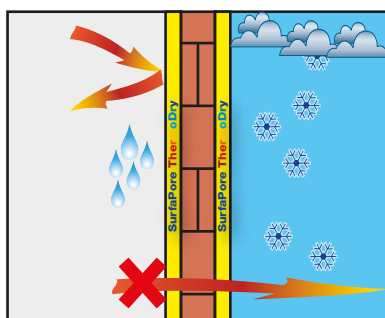
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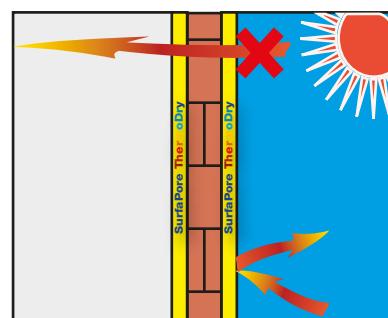
## SurfaPore ThermoDry®

### Additive for making any acrylic water based paint water repelling and thermal insulating

SurfaPore ThermoDry blocks thermal transfer and protects against moisture making paints water repelling! It protects against water condensation resisting mould growth on walls. Thermal energy is transferred through walls and other surfaces. Therefore large amounts of energy are required for cooling in the summer and heating in the winter. SurfaPore ThermoDry does not only reflect thermal radiation, but also resists heat transfer! The triple action of SurfaPore ThermoDry, i.e. thermal radiation reflectivity, the resistance in heat transfer and water repellence contribute in the protection of painted surfaces and the energy efficiency of buildings!



Prevents Heat Outflow &  
Retains internal Temperature



Prevents Heat Inflow &  
Retains internal Coolness

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NanoPhos SA

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Lavrio 19500, Greece

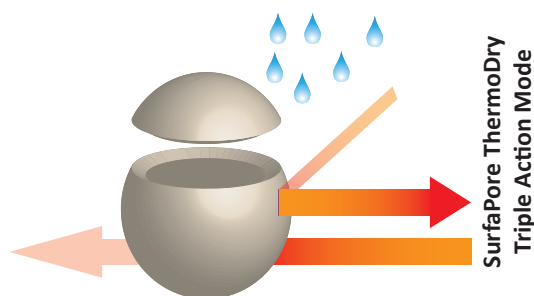
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**NanoPhos**  
Pioneering  
Nanotechnology 

## SurfaPore ThermoDry Description

SurfaPore ThermoDry is an additive for all water-based paints that can be further diluted with water. It makes the paints thermal insulating, water repelling and resistant to mould. It increases paint volume by 60% reducing the amount of paint required to cover the same surface area. SurfaPore ThermoDry does not only reflect thermal radiation, but also resists heat transfer through various surfaces! In this manner you enjoy increased energy efficiency, a reduced CO<sub>2</sub> footprint and a comfortable environment! SurfaPore ThermoDry makes paint water repelling: The nanoparticles contained protect paints from moisture extending their lifetime and increase their thermal insulating ability. Further, it reduces temperature variation on walls (thermal bridges), protecting against water condensation and bacteria or mould growth!



### International Standards Testing

**Density (ISO 2811-1):** 0.56±0.05 g/cm<sup>3</sup>

**pH (ISO 19396-1):** 9.0±0.5

After mixing with water based acrylic paint coating has:

**Thermal conductivity (EN ISO 12667:2004):** 0.1 W/(mK).

**Emittance (ASTM E408-71):** 0.91

**Thermal performance of building components (ISO 13786:2007):** The paint coating (2 applications) provides thermal insulation equal to EPS of about 2 cm.

### Application Note

**Paint Additive:** Select paints for interior or exterior use that can be diluted with water by 5-10% before use. Cannot be added in solvent based paints. **Instructions of Use:** Shake contents very well before use. It is possible that a solid layer may have developed on top, which will disappear by shaking well or by stirring. Ensure that the container you selected dilutes your amount of paint. By using the paint and SurfaPore ThermoDry containers, empty the contents of one container into the other, until your mix is completely homogeneous. Apply your mix in the same manner you would have applied the paint you selected. It does not alter the drying time of your paint. **Storage and cleaning:** Keep out of reach of children. Store in a closed container. Keep in a cool place and out of direct sunlight. Wash tools and containers with water. IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician. **Texture and colour tone:** It does not alter the colour tone. It does not alter texture in matte finish paints. In satin, eggshell or glossy finish paints test before application. **Maximum VOC content:** 4g/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.