

Project:

External and internal thermal insulation & water-proofing of paints. Protection against mould growth.

Industry:

Water Based Building Paints.

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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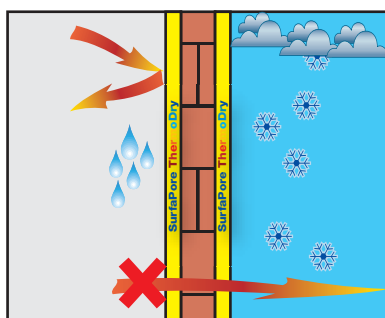


SurfaPore ThermoDry®

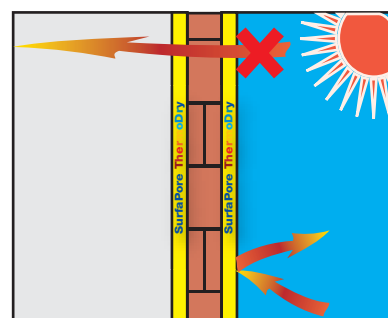
Nanotechnology and Microtechnology additive for making any acrylic water based paint water repelling and thermal insulating.

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 “travels” 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

SurfaPore® and SurfaPore ThermoDry® logos are registered trademarks of:
NanoPhos SA

Science & Technology Park of Lavrio,
Lavrio 19500, Greece

Tel.: (+30) 22920 69312 Fax: (+30) 22920 69303

W: www.NanoPhos.com E: info@NanoPhos.com

NanoPhos

Pioneering
Nanotechnology

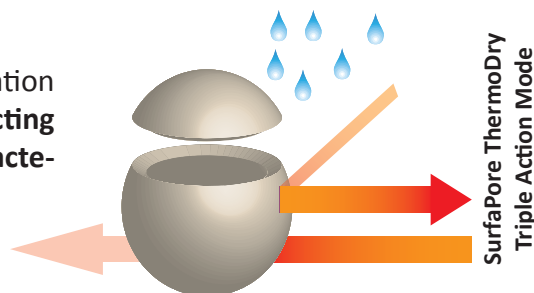


SurfaPore ThermoDry Description

SurfaPore ThermoDry is an additive for all water-based paints that can be further diluted with water. It makes these 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 CO₂ 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

Independent certification agencies certify that the use of SurfaPore ThermoDry in common water-based acrylic paints reduces their thermal conductivity by at least 4 times (0,1292 W/(mK), EN 12667). Reflection of thermal radiation (InfraRed region of light) is 92,35% (ASTM G173-03).

Application Note

Paint Additive: Select paints for internal or external 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 in a cool place and out of direct sunlight. Wash tools and containers with water. **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.

Physical Properties

Milky white, aqueous emulsion. pH around 7,1.
Boiling Point, Flash and Auto-ignition Point: >100°C
Density: 0,55 g.cm⁻³. This product is not an oxidative or corrosive agent.

Health, Safety & Storage

During use and application avoid rubbing or putting your hands in your eyes: Danger of scratching the cornea of your eye. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Use only in well-ventilated areas. Wear suitable protective clothing. Keep out of the reach of children. Avoid contact with skin. After contact with skin, wash immediately with plenty of water and soap. Manage the empty buckets responsibly and according to the law. Do not empty into drains. Do not use the empty buckets for storing food or drinks.

SurfaPore ThermoDry contains no hazardous ingredients and is water based. **VOC Content:** max 4g/L (EU limit (2010): 30g/L). Not hazardous according to Council Directive 1999/45/EC and its subsequent amendments. Request, read and comprehend the MSDS. Avoid freezing. **Expiration Date:** Two years 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 express 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 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! Nano-sized 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. NanoPhos is a rapidly growing company that is actively expanding its distribution network. Currently, the company is present in the UK, Ireland, Norway, Sweden, Finland, Denmark, Portugal, Greece, Cyprus, Poland, Saudi Arabia, New Zealand and Australia.

www.NanoPhos.com



NanoPhos SA has been approved by Lloyd's Register Quality Assurance to follow the EN ISO 9001:2000 Quality Management System for the development, production and sales of chemical products for cleaning and protection of surfaces and nanotechnology products.