Project:
Thermal Insulating Paint for Interior Walls & Ceilings

Industry:
Building & Construction

Product:
SurfaPaint ThermoDry Interior

Benefits:
- Conserves energy
- Thermal insulation
- Prevents thermal bridges
- Protects against mould growth
- High scrub resistance
- High washability
- Extended lifetime
- Low VOC water-based paint
- Easy application on surface
- Excellent opacity and coverage
- Anti-fungal action

Applications:
Internal surfaces (walls, ceilings, concrete, plaster, board) and wherever emulsion paints are applied.

Packaging:
5L & 10L plastic pails

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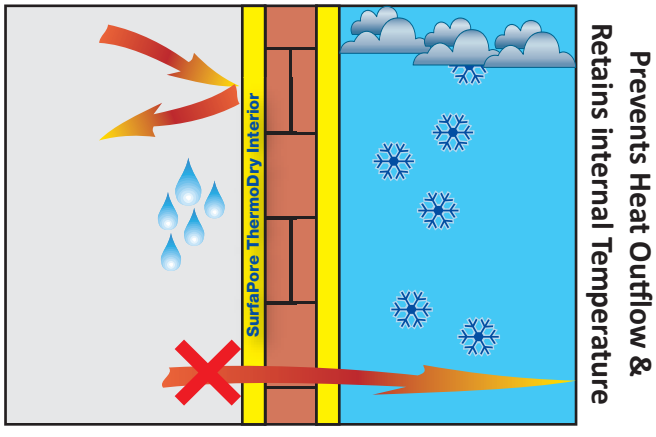
SurfaPaint ThermoDry Interior

Water Based, Thermal Insulating Paint for Interior Walls & Ceilings

When thermal energy "travels" through walls and other surfaces, large amounts of energy are often necessary for cooling in the summer and heating in the winter. SurfaPaint ThermoDry Interior is a high quality paint with thermal insulating properties, ideal for interior use. Powered by SurfaPore ThermoDry, it contains special nano and micro-sized thermal insulating materials contributing to energy savings during winter and summer. The thermal insulating particles block heat transfer, reflect thermal radiation, and create a moisture barrier that can result in significant energy savings. As it prevents thermal bridging, it minimizes moisture condensation and mould growth. SurfaPaint ThermoDry is ideal for children's room, bathrooms, kitchens, hospitals, school buildings, hotels and public areas due to its high washability and scrub resistance (EN 13300, class 1). Suitable for every kind of new or old surfaces such as concrete, plaster, drywalls and wood. Can be used as a tinting base for light shades.

The triple action of SurfaPaint ThermoDry Interior paint, i.e. thermal radiation reflectance, heat tranfer resistance and water repellence protects painted surfaces and improves energy efficiency.



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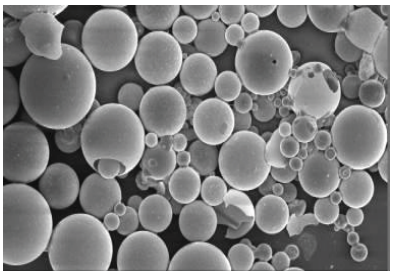
Pioneering Nanotechnology

SurfaPaint ThermoDry Interior Description

SurfaPaint ThermoDry Interior combines a superior quality interior paint with the thermal insulating properties of SurfaPore ThermoDry. This paint composition delivers all the benefits of a high quality paint: Scrub resistance, excellent coverage, anti-fungal action, strong adhesion and coating flexibility. SurfaPaint ThermoDry Interior also contains the ideal quantity of SurfaPore ThermoDry that assures all the benefits of a superior thermally insulating paint: Significant reduction in thermal conductivity, reflectance of thermal radiation (infrared) and decreased water absorption of the final coating. Therefore, the application of SurfaPaint ThermoDry Interior can prevent thermal bridges on walls, a frequent phenomenon of poorely insulated surfaces. It is an ideal solution for preventing mould growth by eliminating humidity condensation on cold wall surfaces, along with its anti-fungal properties. Finally, it reduces internal heat losses increasing the energy efficiency of buildings.



Thermal insulating particles of SurfaPaint ThermoDry Interior

International Standards Testing

Thermal Conductivity: <0,1 W/(mK), (EN ISO 12667:2004). The corresponding value of a conventional paint is 0,50 W/(mK).
Thermal Reflectance: 94,6% Reflection in the InfraRed region of light (700nm - 2,2μm ASTM G173).
Liquid water permeability: "non-permeable" by water according to EN ISO 1062-3:2008
Fungal resistance: excellent resistant against fungi & algae, Class 1 according to BS3900-G6:1989
Scrub resistance: Class 1 according to EN ISO 11998:2006

Applicability: SurfaPaint ThermoDry Interior can be applied directly on interior wall surfaces (concrete, plaster, drywalls), and wherever water based, acrylic paints are applied. New substrates from cement or masonry should have cured for more than 3-4 weeks before application. **Preparation:** Ensure all surfaces are clean and dry prior to application. Remove any dust and dirt. Very dirty surfaces (damp, nicotine, ink, fungi) should be primed. **Application note:** Stir well before application. If thinning is required add up to 10% water by volume. Application temperature should be between 8-35°C. Apply 2-3 even coats using a good quality brush, roller or by spraying with a tip of a diameter 1,4mm or more. Do not over-brush. Ensure corners and edges are adequately covered. Additional coats should be applied 4-6 hours after the previous application. **Spreading Rate:** 10-12 m^2/L. **Drying Time:** Typically 1 hour depending upon coat thickness. Low temperatures and high humidity will lengthen drying times. **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 post production date. **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 water. 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/a "matt coatings for interior walls and ceilings", Type WB): 30 g/L (2010). **Maximum VOC content of this product is 12 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, Norway, Sweden, Portugal, France, Italy, Greece, Cyprus, Turkey, Egypt, Saudi Arabia, Bahrain, UAE, Iran, India, 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.