

Super hydrophobization nanotechnological coating

UZIN NANOSIL

Nanomodified organosilanic impregnation agent for waterproofing mineral substrates of constructions

Description:

Nanotechnology modified water impregnation protective impregnation agent based on synthetic resins solved in naphtha. Penetrated deeply into capillaries of inorganic surfaces of floor or walls. It does not clog pores, but it leaves all surfaces to “breath”. Indoor and outdoor use.

Suitable for use:

- ▶ Façade protection made by reinforced and aerated concrete, ceramic, masonry, natural or artificial stones, plaster, bricks, etc.
- ▶ Floor protection made by concrete, glazed or cotto-type ceramic tiles, clinkers, natural and artificial stone floor coverings, etc.

Product properties / advantages:

Due to its micromolecular structure and to nano-modification, it is very thin like water rheology and penetrates easily. Economic due to its low consumption. Based on organosilans dissolved in heavy naphtha. Bonds and protects mineral substrates from water weathering and abrasion. Renders all mineral surfaces hydrophobic/oleophobic, while allowing the transpiration of water vapors, meaning that all entrapped gases into the micropores could be released to the surface without being encapsulated.

Composition: nanomodified organosilanic resins dissolved in organic solvents.

- ▶ Super hydrophobization
- ▶ Easy and fast application
- ▶ Thin and penetrating
- ▶ Leaves surface to breathe EN 15148: 2002
- ▶ Fast drying
- ▶ Resists to water and chemicals
- ▶ Wide range of applications
- ▶ Contains solvents

Technical Data:

Package:	tin cans, barrels
Gross Weight:	1 kg, 5 kg, 16 kg, 180 kg
Storage:	min 12 months
Color:	Yellowish, transparent
Consumption:	80-150 g /m ² (every coat)
Min application temperature:	+10 °C
Ideal working temperatures:	15 - 25 °C (substrate)
Drying Time:	30 - 60 minutes*

* At 20 °C and 65 % relative humidity. See also "Application Table".

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Substrate preparation:

The substrate must be sound, load bearing, dry, free from cracks, clean and free from materials (dirt, oil, grease), that would impair adhesion.

Test the substrate in accordance with applicable standards and bulletins and report any deficiencies.

Refer to the product data sheets for other products used.

Application:

1. Allow the container to reach room temperature before use and shake well before the use.
2. Apply a uniform gapless layer of UZIN NANOSIL using a foam roller, brush, or air pistol.
3. Clean tools with organic solvents e.g., UZIN NITROU immediately after use.
4. Drying: Allow any layers that are applied to dry completely to get a transparent uniform film. Normal time for drying is 2-3 hours, but always time depends on relative temperature and humidity. Leave the container to be acclimatized and shake well before use. When a substrate is very absorbent, avoid pouring too much product at one, but best apply 2 successive layers if required.

Consumption data:

Substrate	Consumption	Drying
Cement screeds, concrete	80 – 150 g/m ²	Approx. 30 minutes*
Calcium sulphate screeds, gypsum, plasters	80 – 120 g/m ²	Approx. 60 minutes*
Non-absorbent surfaces	80 – 100 g/m ²	Approx. 60 minutes*

* At 20°C and 65% R.H.

Important notes:

- ▶ Shelf-life min. 12 months in original packaging when stored in moderately cool conditions. Frost-resistant to -20°C. Re-seal opened containers tightly and use contents as quickly as possible. Allow product to reach room temperature before processing.
- ▶ Optimum working at 15 - 25 °C, substrate temperature over 15°C and relative humidity below 65 %. Mind dewpoint in order to avoid failures, due to water vapor condensation. Low temperatures and high humidity will delay whilst high temperatures and low humidity will accelerate the drying time.
- ▶ For façade outdoor applications the product ensures 5-10 years of waterproofing and protection, under stick provision that it has been correctly installed by the recommended consumption.
- ▶ For outdoor flooring applications product's lifetime cannot be determined clearly due to the unpredictable variables of abrasion and scratch resistance.

Protection of the workplace and the environment:

Flam. Liq. 3: H226 – Liquid and vapors flammable. High solvent content. Highly flammable. Irritant. Avoid skin contact with liquid products. Solvents in this product may form an explosive air-vapor-mixture. Therefore, provide good ventilation during and after use. No smoking, no open flames. Do not inhale vapors. Switch off all electric devices like doorbells, refrigerators, electric stoves, etc. Use barrier cream and protective gloves. Product contains volatile organic substances (VOC) 751,97g/lt (20°C). Observe safety information on product label as well as safety data sheet. **For allergy information, call Poison Center +30 210 7793777 (Greece).**

Disposal:

Where possible, collect all product waste and re-use. Do not allow into drains, water courses or landfill. Empty, scraped-out and drip-free metal containers are recyclable. Containers with unhardened residues and collected unhardened product residues are Special Waste. Hardened product residues, as well as containers with hardened residues are classed as Construction Waste.