



## DESCRIPTION

NEPTUNUS is a masonry preservative for exterior and interior walls, based on modified siloxanic polymers and special additives which give the product excellent permeability, together with a high level of water repellency and excellent chemical and outdoor resistance.

Unlike traditional water-based paints, NEPTUNUS does not form a film, instead creating a porous covering which adheres perfectly both to mineral surfaces and to old mineral- or synthetic-type paints. Consequently, it represents an innovative alternative solution to mineral products, without the problems encountered when using lime- or silicate-based paints.

NEPTUNUS's formulation was devised in conformity with the Kuenzle theory which establishes that exterior plastering must simultaneously meet the following parameters:

Water absorption  $W < 0.5 \text{ kg/m}^2 \times h^{0.5}$

Resistance against the diffusion of water vapour  $S_d < 2$  product of  $W \times S_d < 0.1$

NEPTUNUS is suitable for protecting and decorating the walls of buildings of architectural interest, in restoring buildings in historical city centres and at the end of dehumidifying restoration cycles.

## INSTRUCTIONS FOR USE

### May Be Applied On:

- New and old plasters based on hydraulic binders.
- Concrete surfaces.
- Old paints and wall coatings that are mineral in nature, dry, compact, absorbent and cohesive.
- Mineral conglomerates of various kinds, as long as they are absorbent.
- Dehumidifying plasters.

Surfaces should be adequately prepared by following the instructions given in the paragraph 'PREPARING THE SURFACE'.

Do not apply on freshly painted surfaces.

Specific product for the completion of plaster protection systems, of a diffusive or dehumidifying nature.

## TECHNICAL SPECIFICATIONS

- Type of Binder: Modified siloxanic copolymers
- **Classification per UNI EN 1062-1: (paints for exterior)**

.Gloss per EN ISO 2813: class G3 (<10 matt)

.Dry film thickness per ISO 3233: class E2 (50-100 mm)

.Grain size per EN ISO 1524: class S1 (<100 mm fine)

.Water vapour transmission rate per UNI EN ISO 7783-2: class

V1 ( $S_d < 0,14 \text{ m}$ )  $S_d = 0,08 \text{ m}$

.Liquid water permeability per UNI EN 1062-3: class W3 ( $W_E 0,1 \text{ low}$ )

.Crack-bridging per UNI EN 1062-7A: class A0 (no requirement)

.CO2 permeability per UNI EN 1062-6: class C0 (no requirement)

### Other Characteristics:

- Specific gravity per UNI EN ISO 2811-1: 1,45-1,65 kg/l
- Viscosity per UNI 8902:  $40000 \pm 1600 \text{ cps}$  at  $25 \text{ }^\circ\text{C}$  (Brookfield viscometer)
- Wet-scrub resistance per UNI 10560: >10000 cycles, excellent
- Alkali resistance per UNI 10795: alkaliproof
- Drying time (at  $25 \text{ }^\circ\text{C}$  and 65% R.H.): to touch in 30 min; to recoat after 4 hours.

## PREPARING THE SURFACE

### Plaster:

- Make sure that the surface has a maturing time of at least 28 days.
- Check the state of repair. The surface must be consistent. If this is not the case, take measures to reconstruct and strengthen the surface using specific products.
- Remove any efflorescence by buffing or washing.
- Where the surface features traces of old paint, remove any parts which are flaking and which are not perfectly adherent, whilst thick coats of lime-based paint or distemper must be removed completely by wetting the surface thoroughly and scraping, or using a water cleaning machine.
- Level any unevenness on the surface. Holes, cracks and depressions indoors can be treated using TAMSTUCCO 9400006 or TAMSTUCCO POLVERE 9410110; filling or levelling can be performed outdoors using BETOMARC 9450150 or using RASAMIX 9440160, or using other cement-based products.
- Cracks both indoors and out must be suitably widened and filled with filler or similar products.
- Rub down the fillings and repaired areas with glass-paper.
- Remove dust-, smog- and other deposits by buffing.
- Where the surface is affected by mould, treat the surfaces with COMBAT 222 Detergent 4810222 and with COMBAT 333 Restorer 4810333.

- Make sure the surface is perfectly dry and apply a coat of NEPTUNUS CONSOLIDANTE 0720230 anti-salt fixative as it is or thinned at 15-20% with Synthetic thinner 5200010 for surfaces with a low level of absorption.
- Proceed with the application of NEPTUNUS according to the procedures described under “Instructions for product application”.

### **Walls to be dehumidified:**

- Remove the layer of plaster on the surface to a depth of approx. one metre below the layer affected by damp.
- Eliminate any saline efflorescence by buffing and washing with water, preferably using a water cleaning machine.
- Once the surface is dry, apply a coat of NEPTUNUS ANTISALE 0700240, (see relevant technical sheet).
- Wait at least 24 hours, then proceed with the application of NEPTUNUS INTONACO DEUMIDIFICANTE 9480170 and subsequently NEPTUNUS INTONACO DI FINITURA 9480180 (see relevant technical sheets).
- After at least 20 days, apply a coat of NEPTUNUS CONSOLIDANTE 0720230 anti-salt fixative .
- Proceed with the application of NEPTUNUS according to the procedures described under “Instructions for product application”.

### **Gypsum And Plasterboard:**

- Where the surface features traces of old paint, remove any parts which are flaking and which are not perfectly adherent, whilst thick coats of lime-based paint or distemper must be removed completely by wetting the surface thoroughly and scraping or washing using a water cleaning machine.
- Level any unevenness on the surface. Holes, cracks and depressions indoors can be treated using TAMSTUCCO 9400006 or TAMSTUCCO POLVERE 9410110;
- Cracks must be suitably widened and filled with filler or similar products.
- Rub down the fillings and repaired areas with glass-paper.
- Remove dust-, smog-and other deposits by buffing.
- Where the surface is affected by mould, treat the surface with COMBAT 222 Detergent 4810222 and with COMBAT 333 Restorer 4810333.
- Make sure the surface is completely dry and apply a coat of NEPTUNUS CONSOLIDANTE 0720230 anti-salt fixative as it is or thinned at 15-20% with Synthetic thinner 5200010 for surfaces with a low level of absorption.
- Proceed with the application of NEPTUNUS according to the procedures described under “Instructions for product application”.

### **Concrete:**

- Buff the surfaces and eliminate any coats of old paint flaking away.

- Remove any structural concrete parts which are not perfectly adherent
- The reinforced-concrete rods protruding from the surface must be thoroughly buffed and treated with BETOXAN PRIMER Passivating grout 9490125.
- Restore the missing parts using BETOXAN 400 anticontraction thixotropic fibre-reinforced mortar leveller 9490140 and/or BETOXAN 200 anticontraction anticarbonation leveller 9490120.
- Where the surface is affected by mould, treat the surfaces with COMBAT 222 Detergent 4810222 and with COMBAT 333 Restorer 4810333.
- Make sure the surface is completely dry and apply a coat of NEPTUNUS CONSOLIDANTE Anti-salt fixative 0720230 as it is, or thinned at 15-20% for surfaces with a low level of absorption. Generally, on highly chalking surfaces, in the presence of thin layers of old tempera or deteriorated paints, apply ATOMO 8840001 micronized solvent-free fixative.
- Proceed with the application of NEPTUNUS according to the procedures described under “Instructions for product application”.

(The thinning of the sealer and the quantity to be applied depend on the level of absorption of the surface and should be determined by performing preliminary tests on the specific surface.)

## **APPLICATION INSTRUCTIONS**

- Air and support surface conditions:  
Air temperature: Min. +8 °C / Max. +35 °C  
Relative environmental humidity: <75%  
Support surface temperature: Min. +5 °C / Max. +35 °C  
Moisture level of the support surface: <10%
- Avoid applying when surface condensation is present, or in direct sunlight.
- To avoid compromising the optimal appearance and performance of the product, we recommend that it be applied only in the aforementioned climate conditions, and that the surfaces be protected from rain and damp for approximately 48 hours. This will allow the product to dry completely and ensure even polymerization, which takes place in approximately 10 days.
- Surfaces bathed by rainwater during the approximately 10 days, could show translucent vertical lines. Such an occurrence does not compromise the product's performance, and may be removed by high-pressure water cleansing or after subsequent rainfalls.
- Application on surfaces with salt efflorescence or subject to rising damp may interfere with the product's adherence to the support. It is therefore necessary to first reconstruct the masonry using dehumidifying plasters, then paint with the SIL-TECH / NEPTUNUS siloxanic system.
- Tools: brush, roller, spry gun.

- N. coats: at least 2 coats.
- Dilution: first coat at 30% with water; second coat at 20%.
- Tools should be cleaned immediately after use using water.
- Indicative spreading rate: 7-8 sq m/l per coat based on smooth surfaces featuring average absorption. It is advisable to determine the actual spreading rate by carrying out a preliminary test on the specific surface.

*COLORIFICIO SAN MARCO guarantees that the information herein is provided to the best of its technical and scientific knowledge and based on its experience; nonetheless, the company may not be held liable for the results obtained using these products, as application conditions are beyond its control. It is recommended to always make sure that the product is suited to each specific instance. The present sheet voids and replaces any previously existing sheets. For further technical information call the technical service +39 041 4569322*

### TINTING

Colors are obtainable via the Marcromie color matching system. When using multiple batches it is recommended to remix the various products together to avoid slight differences in shading. For outdoor tasks it is a good rule of thumb to always use material from the same batch, from corner to corner. For tasks where it is unavoidable to continue on a wall with a different batch, do not place the batches contiguously. For the transition point, use any interruptions in the continuity of the surface: moldings, corners, cables, etc.

### STORAGE

Maximum temperature for storage stability: +30 °C  
Minimum temperature for storage stability: +5 °C  
Stability in the original closed containers stored at suitable temperatures: 2 years.

### SAFETY RULES

Limit value EU (Dir. 2004/42/EC)

Cat. A: Matt coatings for interior walls and ceilings (gloss <math><25@60^\circ</math>) (water-base): 75 g/l (2007) / 30 g/l (2010)

Cat. C: Coatings for exterior walls of mineral substrate (water-base): 75 g/l (2007) / 40 g/l (2010)

NEPTUNUS Contains max: 30 g/l VOC

The product does not require labelling according to the Directives 1999/45/EC and 67/548/EEC and subsequent amendments. The product must be used in accordance with the standards in force regarding hygiene and safety; after use, do not litter, let residues dry out completely and treat them as special waste.

Consult the safety data sheet for additional information.

### SPECIFICATION ITEM

Applications, on previously prepared surfaces, of NEPTUNUS paint, series 380, with a water-based siloxanic polymer base featuring Liquid water permeability according to the standard UNI EN 1062-3:  $w < 0,10 \text{ kg/m}^2 \text{ h}^{0,5}$  and Water vapour transmission rate according to the standard UNI EN ISO 7783-2:  $S_d = 0,08 \text{ m}$  - with at least 2 coats, of a quantity determined by the absorption of the surface.

Supply and application of the material.....per sq m.