

SPECIFICATIONS AND FIELDS OF EMPLOYMENT

Vulcano travertino P is lime-based powdered mineral plaster for exterior and interior use. It incorporates the old method of coloring and protecting plastering called "Sagramatura" where various layers of plaster were applied on top of a brick surface. These had grain sizes that gradually went from large to fine and were covered with the so-called "sacrifice layer" the job of which, besides coloring and enhancing the surface, was to protect the underlying plaster from deterioration, forming a sole body that bonded naturally to the support, maintaining dynamic its diffusivity to steam. This finish was a mortar generally consisting of lime, river aggregate, crushed earthenware and natural earths and resulted in a highly resistant and long-lasting product, which was at the same time natural and transpiring.

HISTORICAL NOTES

Ancient texts and the architectural works which reached us in tact bear witness to the fact that the greatest Mediterranean civilizations such as the Romans, Greeks, and Egyptians were already using lime for both the preparation of plaster and in the technique of wall decorating. The art of mixing the elements and the application techniques have been handed down by the master artisans over the course of the centuries and knew their greatest splendor during the Venetian Renaissance. Andrea Palladio in "I Quattro Libri dell'Architettura" gives us an in-depth and articulate description of the quality of slaked lime and of



its uses. Palladino's villas, which have survived in excellent condition, are the most tangible proof of the validity of such materials. Vucano Travertino P wishes to propose and exploit a traditional centuries old technique, which lends itself harmoniously to both the preservative restoration of historic buildings and as a decorative solution in modern design for interior and exterior settings.

Vulcano Travertino P consists mainly of hydrate lime, white cement, selected aggregates, vegetable additives and mineral oxides. Thanks to its completely mineral composition, it is resistant to alkali attack and abrasion, is not subject to detachment or shrinking and forms a single body with the substratum, is not inflammable and does not chalk, is permeable to water vapor, thereby maintaining dynamic the diffusivity of the air in the support, and gives any building the warm and veiled hues typical of old plasters. Thanks to its special mineral composition, the product could be subject to marks and non-uniform discoloring in the event of outdoor application. This is due to the different absorption factors of the support during application and to exposure to weather conditions over time; exposure to driving and persistent rain during the first few day after application, especially if the rain is acid, could cause the formation of a whitish film due to the chemical reaction of the not yet carbonated calcium hydroxide, a phenomenon that in time tends to disappear following subsequent

washing with rain. Such imperfections are not to be considered product faults, but natural intrinsic features. Vulcano Travertino P is ideal for coloring and protecting historical building like churches, mansions or villas or for all those buildings requiring a highly prized finish along with excellent plaster transpiration. It represents two applications in a single product: finishing plaster and coloring. It can also be applied in considerable thicknesses on smoothed out rough plasters or also on civil plasters.

PREPARATION AND APPLICATION:

After installing the scaffolding, apply continuously as far as architectural interruptions. Work on plaster devoid of paints or plastic facings. In the event of deteriorated and flaky supports, apply a first coat of **NEOPRO primer S** diluted in a 2:1 ratio in water so as to consolidate the surface and improve adhesion. After adding 20% of water, mix Vulcano Travertino P with a whip mixer at medium speed for no more than 3 minutes; allow the mix to rest for 6/7 minutes, remix briefly before applying. Use a stainless-steel trowel and spread in two layers, allowing a maximum time of 24 hours between one and another application. After applying the second layer on the still damp surface, level with a small sponge trowel. The mixed product is easy to work for about 1 hour. In the event of excessively arid supports or high temperatures, before starting application, it is best to slightly dampen the surface with water. Do not apply at air temperature or when the support temperature is below 5°C or above 35°C. Protect the applied layer from driving rain for a few days. Avoid applying on surfaces exposed to wind or full sunlight. After use, wash the tools with water. In case of application on exposed surfaces, we recommend a final protection with **Velatura Murano**, xiloxanes material applied in a well saturated manner, in order to considerably improve water-repellent protection, protection against acid rains and cleanliness of the surface over time.

IMPORTANT NOTES:

Before applying, make sure the support is perfectly dry and seasoned as well as perfectly fast to. The substratum, that it is not dirty, greasy, contaminated with mildew, fungi, bacteria, salts or anything else that could prevent proper adhesion and a successful job. Always store Vulcano Travertino P in a dry place with low humidity. Use the product at room and support temperature between $+ 8^{\circ}$ C and $+ 35^{\circ}$ C, with relative humidity no higher than 75%. Avoid drying with room and support temperature below $+ 5^{\circ}$ C. Never apply when there is risk of rainy weather, in full sunlight, when it is very windy, or with persistent fogs. Protect the surface against driving rain until the product is completely seasoned. Arrange the scaffolding so work can be done in a continuous manner as far as architectural obstacles to prevent the formation of joints, overlapping and color differences. Stock up with a single batch of color in quantity enough to finish the job or at least complete. Areas where color differences are not evident. After use, immediately wash all tools with water. Due to its high alkaline content, the product irritates the skin and eyes. Consequently, avoid direct contact.

TECHNICAL DATA:

DRYING AT: 20°C Dry to touch after 2 - 3 hours, deep dry after about 24 hours COVERAGE: 1.2 – 1.5 kg/m²; about 2 kg for 2 mm Thickness (2 layers) GRAIN SIZES (UNI EN 1015-1): Passing at 0.60 mm 100% Passing at 0.10 mm 72% Passing at 0.01 mm 33% ASPECT OF DRIED FILM: Matt rustic

APPLICATION THICKNESS: between 2 and 3 mm DILUTION: water TIME REQUIRED BEFORE USE OF MIX: 1 – 2 hours PERMEABILITY TO STEAM (DIN 52615): 5.4 ADHESION: 0.5 N/mm² COLOURS: White, can be colored with Murano Velatura PACKAGES: 20 kg paper bag or 20 kg plastic bucket

The above information has been obtained from scrupulously controlled tests, and represents our best and most recent knowledge. This information is provided for reference purposes only. It is not binding upon the manufacturer, and neither may it constitute grounds for any kind of complaint whatsoever associated with the use of the products described, also considering that the conditions of use are beyond our control.



SPECIFICATIONS AND FIELDS OF EMPLOYMENT

Vulcano Travertino R is an ancient and natural tradition repurposed in an updated version to decorate the most sophisticated environments and buildings. Its lime putty based natural mineral covering for spatula application.

HISTORICAL NOTES

Ancient texts and the architectural works which reached us in tact bear witness to the fact that the greatest Mediterranean civilizations such as the Romans, Greeks, and Egyptians were already using lime for both the preparation of plaster and in the technique of wall decorating. The art of mixing the elements and the application techniques have been handed down by the master artisans over the course of the centuries and knew their greatest splendor during the Venetian Renaissance. Andrea Palladio in "I Quattro Libri dell'Architettura" gives us an in-depth and articulate description of the quality of slaked lime and of its uses. Palladino's villas, which have survived in excellent condition, are



the most tangible proof of the validity of such materials. Vucano Travertino R wishes to propose and exploit a traditional centuries old technique, which lends itself harmoniously to both the preservative restoration of historic buildings and as a decorative solution in modern design for interior and exterior settings.

CHARACTERISTICS

Vulcano Travertino R is a vapor permeable mineral covering composed of the best quality lime putty, baked in wood burning ovens, long-cured (essential to guarantee the stability and life of the product), select and grain size balanced marble dust, vegetal additives, less than 3% of additives of organic origin (dry residue compliant with DIN 18363, 2.4.6 standard), earth and inorganic oxides. The organic colorants are used only in the colors marked with the letter "C" in order to obtain special chromatic effects. The use of lime as binder confers the maximum breathability fostering the natural diffusion of environmental humidity through the plaster and the masonry; given the high basicity, it does not foster the formation and proliferation of molds and bacteria and thanks to the process of carbonation it forms a barrier which is tenacious and unalterable over time. Thanks to the special material used.

Vulcano Travertino R is extremely light resistant, is non-flammable, absolutely non-toxic, and non-polluting. Due to its particular mineral composition the product may be subject, in the case of exterior application, to irregular spotting and discoloration due to the

uneven absorption of the product during the application phase, and over time due to exposure to various environmental factors; in addition exposure to persistent and driving rain in the first few days following application, especially if the rain is acidic, may give rise to the formation of a superficial whitish patina caused by a chemical reaction of the not yet carbonated calcium hydroxide, a phenomenon which tends then with time to disappear with subsequent rain showers.

Such imperfections should not be considered defects but rather a characteristic of the product's naturalness.

USES:

Vulcano Travertino R is particularly suited to the preservative restoration of old historical buildings such as churches, palaces or villas, both interior and exterior; to create surfaces of elevated aesthetic value in all settings whether modern or classic: halls, stairways, bathrooms, living rooms; to add a touch of elegance to the most refined public places such as hotels, restaurants, shops, etc. It is also the ideal solution as a finish on interior restorative-dehumidifying plaster.

PREPARATION AND APPLICATION:

Exterior - preparation: application on top of lime-based plaster is recommended. In the case of deteriorated plaster, it must be removed and restored with new lime-based plaster. On plaster or old paint which is well anchored to the support but particularly friable, we recommend the complete saturation of the support with one coat of **NEOPRO primer S** diluted with water in a 2:1 ratio. In the presence of organic paints or synthetic coatings these must be completely removed and the original plaster restored and smoothed in order to allow an appropriate and homogenous bond surface. Use water to wet dusty or particularly dry surfaces prior to application. Interior - preparation: on civil plaster or old mineral paints as long as they are not powdery, are in good condition and sufficiently rough, apply directly. On supports of the type: gesso, gypsum, plasterboard, old synthetic or powdery paints, stucco smoothing's etc., apply a coat of **NEOPRO primer S** to the point of saturation and subsequently. Neutralize in advance with appropriate products the presence of stains of various types or any saline efflorescence. In the case of irregular supports, whether interior or exterior, with uneven absorption rates, restored plaster, stains, etc., the application of a layer of mineral smooth plaster with a steel rubbing board filling any cracks or imperfections in the surface. When the first layer is completely dry, apply a second layer to even out the surface.

MARMORINO TRASLUCIDO effect: apply a third thin layer of Vulcano Travertino R with a spatula and once the product has begun to dry, plane "edgewise" pressing energetically on the spatula in order to obtain a smooth and translucent surface.

INTONACHINO FINE effect: on the second layer of **RASATO TRAVERTINO** when this is not yet completely dry go over it with a damp sponge trowel to obtain the classic rough appearance of fine plaster.

In the case of application to facades we recommend final protection with **Murano Velatura** xiloxan water repellent sealer, to the point of saturation, in order to notably improve water repellency protection, protection from exposure to acid rain and the cleanliness of the facade over time. This procedure is also recommended in the case of application of the lime finish to particularly water repellent supports such as humidity repair plaster, in order to avoid the premature wear of the final layer.

TECHNICAL DATA

COVERAGE: $500 - 600 \text{ g/m}^2$ per layer applied **DRYING TIME:** At 20°C superficial 2 - 3 hours; dry to handle after 24 - 36 hours FINISH: smooth translucent or rough matt MAX. GRAIN SIZE: 0.7 mm SOLID CONTENT: 105°C 71 - 73% SOLVENT (for the wet product): water PACKAGES: 20 kg PERMEABILITY TO STEAM: (DIN 52615) Sd = 0.298m (for a thickness of 3.4 mm) μ = 87.6 COLOURS: with Murano Velatura from NEOPRO color card

Emission limits of Volatile Organic Compounds (VOC) according to directive 2004/42/CE:

Classification: A/a) "matt coatings for interior walls and ceilings"; Limit Phase I (from 01/01/2010): 30g/I VOC: 20 g/I (max).

The information contained herein is the result of scrupulously controlled tests and expresses our best and most up-to-date knowledge. Moreover this information is intended for informational purposes only. The manufacturer cannot be held responsible for the improper use of these products, nor does the information contained herein provide a pretext for disputes of any type. This is also in light of the fact that the working methods employed are beyond our control.

IMPORTANT NOTES:

Before beginning application, make sure that the background is perfectly dry and cured and perfectly anchored to the substrate, there is no dirt, oil, contamination by mold, fungus, bacteria, salt or anything else that could compromise adhesion or the successful outcome of the job. Protect the containers from freezing (minimum $+ 5^{\circ}$ C). Store in a cool, dry place. Do not expose to direct sunlight. The temperature of both the work environment and the background should be between $+ 8^{\circ}$ C and $+ 35^{\circ}$ C. Relative humidity must not exceed 75%. Prevent drying of the product at temperatures of the work environment or the background below $+ 5^{\circ}$ C. Do not use the product when there is the likelihood of rain, in direct sunlight, strong winds, or persistent fog. Protect the treated surfaces from driving rain for as long as necessary for the complete seasoning of the product. Arrange the scaffolds in such a way as to allow continuous application until architectural interruptions to avoid the formation of joints, overflows and color differences. Obtain enough of the color in a single batch to complete the job or at least to complete portions of work which do not draw attention to shade differences. Wash all tools with water immediately after use. Due to its highly alkaline nature, the product is a skin and eye irritant, contact should therefore be avoided. Refer to the corresponding safety sheet for any information not included above.