

# POROMAP RINZAFFO PLUS

Salt-resistant, breathable, scratch-coat mortar, based on hydraulic pozzolanic reaction binder, to be used as first layer to improve the bond of the render and even out the absorption of the substrate



## CO<sub>2</sub> FULLY OFFSET PRODUCTS

Poromap Rinzaffo Plus is part of the CO<sub>2</sub> Fully Offset in the Entire Life Cycle line of products. CO<sub>2</sub> emissions measured throughout the life cycle of products from the Zero line in 2025 using Life Cycle Assessment (LCA) methodology, verified and certified with EPDs, have been offset through the acquisition of certified carbon credits in support of forestry protection projects. A commitment to the planet, to people and to biodiversity. For more details on how emissions are calculated and on climate mitigation projects financed through certified carbon credits, visit the webpage [zero.mapei.com](https://zero.mapei.com).

## WHERE TO USE

Restoring masonry where a first layer that improves the bond of the render and evens out the absorption of the substrate is needed. It can be used both on loose surfaces and waterproof coating for creating anti-condensation cycles.

Renovating brick, stone and tuff masonries, including new-build, damaged by capillary rising damp or by the crumbling effect of sulphates, chlorides and nitrates, when the substrate is extremely crumbling.

### Some application examples

PoroMap Rinzaffo Plus can be applied as the first layer for:

- anti-condensation cycle on retaining walls in partially underground or underground environments.
- structural, breathable renders on particularly problematic masonry such as stone or mixed masonry, highly porous masonry or extremely weak surfaces.
- Internal and/or external macro-porous, de-humidifying and insulating render on stone, brick, tuff and mixed masonry, including new-build, when the substrate is extremely crumbling.

## TECHNICAL CHARACTERISTICS

PoroMap Rinzaffo Plus is a ready-mixed powder mortar made from special hydraulic, pozzolanic binders, natural sand, special admixtures with very low emission of volatile organic compounds (EMICODE EC1 Plus) according to a formula developed in the MAPEI Research and Development laboratories.

This product is classified as GP according to EN 998-1 standard: "General purpose mortar for internal/external render" Category CS IV.

When mixed with water in a cement mixer or in a continuous feed spraying machine, **PoroMap Rinzafto Plus** forms a breathable scratch-coat mortar with a semi-fluid consistency which is easy to apply by rendering machine or by trowel both on vertical surfaces and ceilings.

The properties of a mortar made with **PoroMap Rinzafto Plus**, such as mechanical strength, modulus of elasticity and porosity, are very similar to those of a mortar made using lime, lime-pozzolan or hydraulic lime originally used in the construction of old buildings.

Compared with these types of mortar, however, **PoroMap Rinzafto Plus** also has properties which make it resistant to acid rain, freeze-thaw cycles, the leaching action of rainwater, alkali-aggregate reactions and soluble salts often present in the masonry and in the ground on which the masonry is built.

Typical values are shown in the Technical Data table (see Application Data and Final Performance sections) which refer to the main characteristics of **PoroMap Rinzafto Plus** at both the wet and hardened states.

## RECOMMENDATIONS

- In case of particularly problematic masonry such as stone or mixed masonry, highly porous masonry or extremely weak surfaces it is recommended to apply **PoroMap Rinzafto Plus** as first layer to improve the bonding of the next coat of render and to even out the absorption of the masonry.
- Do not use **PoroMap Rinzafto Plus** as consolidating injection slurry (use **MapeWall Inject & Consolidate**).
- Do not add any admixtures, cement or other binders (lime or gypsum) to **PoroMap Rinzafto Plus**.
- Do not apply **PoroMap Rinzafto Plus** if the temperature is lower than +5°C.
- Do not use **PoroMap Rinzafto Plus** on masonries with high concentration of salts without creating a horizontal chemical barrier using **Mapestop** or **Mapestop Cream**.

## APPLICATION PROCEDURE

### TECHNICAL INFORMATION FOR APPLICATION

Composition of the mix:	100 kg of <b>PoroMap Rinzafto Plus</b> 19-21 kg of water
Thickness of layer:	5 mm
Application temperature range:	environment and substrate temperature +5°C to +35°C
Setting time:	approx. 1 hour

### Preparation of the substrate

If the product is used for an anti-condensation cycle, apply **PoroMap Rinzafto Plus** directly on **Mapelastic Foundation**. Make sure that the surface is free from dust or any other substance that could affect bonding. In case of extremely weak masonry or if the substrate is extremely crumbling, remove all traces of loose or crumbling material, dust, mould and any other substance or material that could affect the bond of **PoroMap Rinzafto Plus** until the substrate is clean, sound and compact.

Clean the masonry with low-pressure water jets to remove any efflorescence or soluble salts present on the surface. Repeat this operation several times if necessary.

Repair any gaps and uneven areas in the masonry by patching or tacking them using **MapeWall Muratura Fine** or **MapeWall Muratura Grosso** or **MapeWall Render & Strengthen**, according to the performances required to the mortar together with stones, bricks or tuff with similar characteristics to those present in the original material.

Saturate the substrate with water to prevent it from drawing off water from the mortar and compromising its final performance characteristics. Excess water must be left to evaporate off so that the masonry is saturated and the surface is dry (s.s.d. condition). Compressed air may be used to speed up this process. If the substrate cannot be saturated with water, we recommend that it is at least wetted or treated with a suitable consolidating product to allow the mortar to adhere correctly.

Apply a layer of **PoroMap Rinzafto Plus** approx. 5 mm thick to completely cover the substrate to be treated with **PoroMap Deumidificante**.

### Preparation of the product

Prepare **PoroMap Rinzafto Plus** in a drum concrete mixer, if the product is applied with a trowel, or in the hopper of a continuous feed rendering machine if the product is applied by spraying. Although the product can be applied also manually, it is recommended to apply it using a rendering machine in case of large surfaces, as

the yield of the product is improved. Small amounts of the product may be prepared using an electric drill at low speed with a mixing attachment. Mixing by hand is not recommended.

The instructions for the preparation of mortar for laboratory test samples are given in the TECHNICAL DATA section.

## Application of the product

### Application with rendering machine

Pour the contents of the bags of **PoroMap Rinzafo Plus** into the hopper of a continuous feed rendering machine, setting the water flow-rate at 440 – 460 l/h, depending on the type of rotor-stator equipment in use, until a "semi-fluid" consistency is achieved.

The mortar can be applied with single-phase and three-phase continuous cycle plastering machines equipped with a rotor-stator suitable for the maximum nominal diameter of the aggregate present in the mortar, as reported in this Technical Data Sheet.

Note: depending on the conditions encountered at the time of product application and the rendering machine used, there may be variations to the data reported in the TECHNICAL DATA (typical values) table presented in this Technical Data Sheet.

### Application with a trowel

After pouring the minimum amount of clean water required into the mixer (4.75 litres for every 25 kg bag of **PoroMap Rinzafo Plus**), slowly add the powdered mortar in a continuous flow. Mix for approximately 3 minutes and check that the blend is well mixed, even and lump-free, and that any lumps of powder that have stuck to the sides or bottom of the mixer are removed. Add more water if required up to a maximum of 5.25 litres per bag (including the amount of water added at the beginning). Then mix **PoroMap Rinzafo Plus** again for a further 2-3 minutes, depending on the efficiency of the mixer, to obtain an even, plastic and thixotropic mix.

Apply a single coat of **PoroMap Rinzafo Plus** around 5 mm thick to completely cover the surface to be treated, starting from the bottom working upwards.

It is recommended to apply the product at a distance of approx. 20 cm, so that the product is applied uniformly. After applying the product, do not float or compact the mortar.

Wait until **PoroMap Rinzafo Plus** has hardened before applying **PoroMap Deumidificante**.

Even though **PoroMap Rinzafo Plus** contains products which contrast the formation of micro-cracks, it is good practice to apply the mortar when the wall is not exposed to direct sunlight and/or wind. In such cases, such as during hot and/or particularly windy weather, take special care when curing the mortar. Spray water on the surface or employ other systems to prevent the mixing water evaporating too quickly.



Application of PoroMap Rinzafo Plus on Mapelastick Foundation for creating anti-condensation cycle



Removal of damaged render



Powerwashing of the masonry





Application of PoroMap Rinzafo Plus with a rendering machine



Application of PoroMap Rinzafo Plus with a trowel

## CLEANING

Remove the mortar from the tools with water before it hardens. Once hardened, cleaning is much more difficult and must be carried out mechanically.

## PACKAGING

25 kg bags.

## CONSUMPTION

7.5-8 kg/m<sup>2</sup> (per 5 mm of thickness).

## STORAGE

PoroMap Rinzafo Plus can be stored for 12 months in a dry, covered area in its original, unopened packaging.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website [www.mapei.com](http://www.mapei.com).

PRODUCT FOR PROFESSIONAL USE.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

Type of mortar (EN 998-1):	GP - General purpose mortar for internal/external render
Consistency:	powder
Colour:	light grey
Maximum size of aggregate (EN 1015-1) (mm):	2.5
EMICODE:	EC1 Plus- very low emission

## TECHNICAL INFORMATION FOR PRODUCT PREPARATION

Mixing ratio:	100 parts by weight of <b>Poromap Rinzafto Plus</b> with 20% of water
Mixing preparation:	Mixing of the product according to EN 1015-2

## CHARACTERISTICS OF THE FRESH MIXTURE (at +20°C - 50% R.H.)

Consistency of the mix:	semifluid
Density of the mix:	1800 kg/m <sup>3</sup>

## FINAL PERFORMANCE

Performance characteristic	Test method	Requirements according to EN 998-1	Performance of product
Compressive strength after 28 days (N/mm <sup>2</sup> ):	EN 1015-11	CS I (from 0.4 to 2.5) CS II (from 1.5 to 5.0) CS III (from 3.5 to 7.5) CS IV (≥ 6)	≥ 8 (Category CS IV)
Adhesive strength on the substrate (brick) (N/mm <sup>2</sup> ):	EN 1015-12	declared value and failure mode (FP)	≥ 0.5 Failure mode (FP) = B
Water absorption due to capillary action [kg/(m <sup>2</sup> ·min <sup>0.5</sup> )]:	EN 1015-18	W <sub>c</sub> 0 not specified W <sub>c</sub> 1 ≤ 0.40 W <sub>c</sub> 2 ≤ 0.20	Category W <sub>c</sub> 1 ≤ 0.4
Water vapour permeability coefficient (μ):	EN 1015-19	declared value	≤ 20
Thermal conductivity (λ <sub>10, dry</sub> ) (W/m·K):	EN 1745	chart value	0.57 (P = 50%)
Reaction to fire:	EN 13501-1	Euroclass	Class A1
Resistance to sulphates:		not required	high
Saline efflorescence (partial immersion in water):	/	not required	absent

## WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product. The values declared in the TECHNICAL DATA table (typical values) were obtained in compliance with test methods and curing cycles defined in the technical standards referenced therein. Therefore, please note that

the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com](http://www.mapei.com)

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