

PoroMap Rinzaffo Macchina

Pre-blended, salt-resistant mortar applied using a rendering machine before applying PoroMap Intonaco Macchina, dehumidifying and insulating mortar



WHERE TO USE

PoroMap Rinzaffo Macchina is applied with a rendering machine as a base layer in the restoration of stone, brick and tuff buildings, damaged by capillary rising damp.

Some application examples

PoroMap Rinzaffo Macchina must always be applied as the first layer directly on clean walls, and after removing the old render, in the following cases:

- the formation of dehumidifying render on masonry subject to serious rising damp;
- the formation of dehumidifying render on internal and external masonry work of buildings which have been recently constructed, and which suffer from rising damp;
- formation of dehumidifying render on structures in particularly damp areas or those close to the sea;
- formation of render on stone, brick and tuff masonry;
- formation of dehumidifying render on stone structures (especially porous stone, such as limestone) and/or brickwork, including material which has not been well fired (e.g. masonry work, pillars, vaulted roofs, etc.) and in all those cases where saline efflorescence is present;
- formation of dehumidifying render on structures where soluble salts are present, such as chlorides, sulphates and nitrates.

TECHNICAL CHARACTERISTICS

PoroMap Rinzaffo Macchina is a pre-blended powder mortar made from special hydraulic binders highly resistant to pozzolan-reaction sulphates, natural sand and special additives, according to a formula developed in MAPEI's own research laboratories.

When **PoroMap Rinzaffo Macchina** is mixed with water in a cement mixer, it forms a mortar with a slightly fluid consistency which is easy to apply both on vertical surfaces and on ceilings.

It is particularly recommended to improve the bond and chemical-physical resistance to soluble salts of macro-porous, de-humidifying render.

Thanks to its special characteristics, **PoroMap Rinzaffo Macchina** blocks the transfer of soluble salts, such as chlorides, sulphates and nitrates, to the macro-porous render which, because of their hygroscopic nature, may cause localised damp spots in environments which are not well ventilated. In fact, in certain thermo-hygrometric conditions, because these salts have a high affinity with water, their presence on the surface of the render tends to draw humidity from the environment into the render.

A further advantage with the use of this product is that it evens out the absorbency of the substrate and improves the bond of the dehumidifying mortar.

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

Thanks to the composition of **PoroMap Rinzaffo Macchina**, and in spite of its high porosity, it is



Removal of old render



Cleaning the masonry work



Preparation and application of PoroMap Rinzafo Macchina

characterised by its high durability which makes it indestructible to various natural aggressive agents, such as freeze-thaw cycles, alkali-aggregate reactions and attack from sulphate, nitrate and chloride salts, which are often present in masonry walls and in the ground on which they have been built.

RECOMMENDATIONS

- Always apply a 5 mm-thick layer of **PoroMap Rinzafo Macchina** as a base layer on surfaces with rising damp, before applying **PoroMap Intonaco Macchina** dehumidifying render.
- Never add additives, cement or other binders (lime and gypsum) to **PoroMap Rinzafo Macchina**.
- Do not apply **PoroMap Rinzafo Macchina** if the temperature is lower than +5°C.
- Only apply **PoroMap Rinzafo Macchina** on clean substrates which are saturated with water.
- Use **PoroMap Rinzafo** and **PoroMap Intonaco** if manual application techniques are necessary.

APPLICATION PROCEDURE

Preparation of the substrate

Before applying the mortar, the surface of the structure under restoration must be prepared correctly. Completely remove all the old render to a height of at least 50 cm above the damp area, and in all cases, to a height of at least twice the thickness of the wall. This operation may be carried out using either mechanical or manual means, and the mortar must be removed down to the surface of the underlying wall. While removing the render, if new stones and/or bricks are required to fill large gaps or holes in the wall, use material with the most similar aesthetic and physical characteristics to the material originally used to build the wall.

After removing all loose material (dust, grease stains, etc.) wash the structure with water to remove surface efflorescence and to eliminate soluble salts on the surface of the masonry.

Before applying **PoroMap Rinzafo**

Macchina, carefully wet both the structure under repair and the stone and/or bricks used to fill the gaps and holes. Excess water must be left to evaporate, so that the masonry is saturated and the surface is dry.

Preparation of the product

The mortar must be prepared using a continuous-cycle rendering machine, such as a Putzmeister MP 25, or a G4 or G5 PFT. Pour the contents of the sacks into the hopper, and set the flow-meter according to the type of machine used and to form mortar with a plastic consistency.

Model	Rotor stator	Mixer	Setting flow-meter (l/h)
Putzmeister MP 25	D6 - Power	standard	440-460
PTF G4 or G5	D6 - 3	standard	440-460

Application of the mortar

Use the same machine to spray a 5 mm-thick layer of mortar on the substrate prepared according to specification, starting from the bottom working upwards.

After applying the keying mortar, do not smooth over the surface with a float.

Even though **PoroMap Rinzafo Macchina** contains products which counteract cracks due to plastic shrinkage, it is good practice to apply the dehumidifying render when the walls to be treated are not directly exposed to the sun or wind. In such cases, the surface of the product must be sprayed with water once it starts setting.

Start applying **PoroMap Intonaco Macchina** on the layer of **PoroMap Rinzafo Macchina** once it has become firm, and before it has hardened. If **PoroMap Intonaco Macchina** is applied the following day, it is important that the surface sprayed with **PoroMap Rinzafo Macchina** is not tamped, and is left with a rough finish. The total thickness of the render must be at least 2 cm to obtain the best results.

Please refer to the **PoroMap Intonaco Macchina** Technical Data Sheet for indications on how to prepare and apply the render.

Cleaning

Mortar which has not yet hardened may be washed from tools using water. Once hardened, cleaning is much more difficult, and must be carried out mechanically.

CONSUMPTION

7.5-8 kg/m² for a 5 mm-thick layer.

PACKAGING

25 kg sacks.

STORAGE

12 months in a dry, sheltered area in the original, unopened packaging. This products conforms to the requirements of Directive 2003/53/CE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	powder
Colour:	grey
Bulk density (kg/m³):	1000-1100
Max. diameter of aggregate (mm):	2.5
Hazard classification according to EC 1999/45:	irritant. Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet
Customs class:	3824 50 90
APPLICATION DATA (at +23°C - 50% R.H.)	
Application temperature range:	from 5°C to 35°C
Workability time of mix:	approx. 1 hour
Max. applied thickness (mm):	5
FINAL PERFORMANCE	
Mixing water:	approx. 18%
Consistency of mix:	plastic
Density of the fresh mix (kg/m³):	1900
Colour:	grey
Vapour diffusion resistance factor (EN 1015/19) (μ):	< 20
Compressive strength (according to DIN 18555 part 3a) (N/mm²): – after 28 days:	10-15

**PoroMap Rinzafo
Macchina**

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

PoroMap Rinzafo Macchina contains cement which, in contact with perspiration or other body fluids, produces an irritating alkaline reaction and, in those subjects sensitive to such products, an allergic rash. Use protective gloves and goggles. For further information, please refer to the Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide

experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.

**All relevant references for
the product are available
upon request and from
www.mapei.com**



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625-6-2009