

Tectoria MONO

ST9-0221

Natural hydraulic lime based mortar to create dehumidifying plasters using a single product.



DESCRIPTION

Tectoria MONO is a ready-to-use CE marked dehumidification mortar made of NHL binders and special hydraulic binders. It can be used to create, with a single product, a renovation system for walls subject to capillar rising damp. It is a salts-blocker and dehumidifier. It is CE marked as a renovation mortar type R CS II according to 998-1.

ADVANTAGES

- Single-component, ready-to-use with the addition of potable water.






USES

Tectoria MONO is used to restore walls affected by rising damp on SSD. The product (which, in case of manual application, must never be mixed with drill but in a concrete mixer) is used to create the first coat and, 24 hours later, for the plaster (avoiding large thicknesses in one coat). Skim coating (reinforced on uneven substrates) should be carried out to complete the curing of the plaster (minimum 3 weeks).

WORKS

- Single-product dehumidifying plaster (**SA45**).

APPLICATION

| | | | |
|---|---|--|--|
|  | Manual application |  | Fresh mortar workability time: > 30 mins |
|  | Mechanical device application |  | Mixing water: first coat: 7-7,5 lt/ 25Kg; second coat: 6-6,5 lt/ 25Kg; |
|  | Min. thickness per coat: first coat: 5 – 10 mm; second coat: 15 mm. | | |

Remove the plaster up to the highest point where the rising damp is still visible, plus two times the thickness of the wall. As for exposed walls, the actual degree of damp in the masonry must be completely analysed.

Clean the surface thoroughly to eliminate any degraded parts (for example any damaged rendering mortar between the hewn stones), grease, old paint and any other materials that might affect proper anchoring during applications.

Brush the masonry and clean with a pressure washer until SSD conditions are achieved, in order to prepare the support for the first coat of **Tectoria MONO**. This must be mixed with drinking water (quantity shown in the table) in a cement-mixer until you get a smooth cream (mixing time of about 4-5 minutes).

Apply the mixture using a trowel or spray, being careful to spread it evenly to cover the entire surface, and create a first rough coat approx. 5 mm thick (10 mm in the case of extremely uneven walls).

Wait 24 hours (at 20°C) before applying the next coat (approx. 1.5 cm), which must be applied after wet the surface of the rough coat and waiting for the film of surface water to disappear.

For this layer, **Tectoria MONO** must be carefully mixed adding the quantity of drinking water shown in the table, in a cement-mixer until you get a smooth cream (mixing time of about 4-5 minutes).

Spread by means of normal plastering machineries or manually using a trowel, being careful not to overly compress the finish.

The setting values referring to mechanised application are the following:

- machine type model PFT G4-G5 and similar,
- pump unit D8,
- tube parameters:
 - diameter d=30mm,
 - length L=15mm.

The traditional skimming method is not recommended, it is better to use wooden or plastic levels that are removed during the final phase of application. The skim coating must be carried out when the plaster is completely cured (minimum 3 weeks, not less than a week per cm of thickness), so as to seal any shrinkage cracks that may have formed, particularly in the case of thick layers of plaster. In case of thick layers and uneven or weak substrate **Kimitech 350** mesh has to be inserted in the finish. The surface must be fully dried before top coats of paint (water vapour permeable only) can be applied.

CONSUMPTION

10 Kg/m²/cm.

PACKAGING

25 Kg bags.

STORAGE

Protect from humidity. Store in a dry, sheltered place. Stored in these conditions and in unopened containers, the product remains stable for 12 months.

| Characteristics | Value |
|--|----------------------------|
| pH in water dispersion | 12 |
| Colour | grey |
| Appereance | Powder |
| Application temperature | +2 - +35 °C |
| Maximum inert material size EN 1015-1 | 1.4 mm |
| Consistency of wet mortar EN 1015-3 | 135 mm |
| Workability time of wet mortar EN 1015-9 | > 30 mins |
| Bulk Density of fresh mortar EN 1015-6 | 1200 kg/m ³ |
| Mechanical compressive strength in 28 days (class CS II) UNI 1015-12 | >1,5; <5 N/mm ² |

| Characteristics | Limit value for R mortar | Value |
|--|--------------------------|------------------------|
| Dry bulk Density EN 1015-10 | Declared Value | 1200 kg/m ³ |
| Compressive mechanical strength in 28 dd EN 1015-11 | Declared Value | CS II |

| | | |
|--|------------------------------------|--------------------------------|
| Adhesion EN 1015-12 | Declared value | ≥ 0,6 N/mm ² – FP:B |
| Capillar water absorption EN 1015-18 | > 0,3 Kg/m ² after 24 h | > 0,3 Kg/m ² |
| Water penetration after water capillar absorption test EN 1015-18 | ≤ 5 mm | ≤ 5 mm |
| Coefficient of water vapour permeability EN 1015-19 | Declared Value | μ ≤ 15 |
| Thermal conductivity λ _{10, dry, mat} values EN 1745 | Average Value as per table (P=50%) | 0,33 W/m*K |
| Reaction to fire class | Declared value | A1 |
| Durability | Declared Value | NPD |
| Hazardous substances | Declared Value | See SDS |

WARNING

Product for professional use. Only use enough water to obtain the right mix. Before using, check bags have not been damaged, and do not use the product if there are any lumps. Use the entire contents once the bag has been opened.

When applying manually with a trowel, to avoid too little air being incorporated into the mix during preparation, the product must never be mixed with a mechanical stirrer, but always with a concrete mixer (in this case do not mix the product for too long, as this might alter its mechanical characteristics and make it liable to subsequent cracking and peeling), leaving the mortar to rest for a few minutes after mixing and before applying it.

When applying with a plastering machine, select a model that will not crush the inert, expanded siliceous materials contained in the mortar.

If it is necessary to lay thick layers of plaster, it is recommended that this be done in successive coats of maximum 2 cm, each one applied after the previous layer has dried, so as to avoid applying excessively thick layers of fresh plaster that might slip during setting, or differences in drying time between the surface and the interior mass that might result in the formation of micro-cracks and a decreased adhesion of the macroporous plaster to the substrate. When applying in poorly ventilated areas (caverns, underwater rooms, etc.), in order to allow the product to dry and eliminate any surface condensation within the time limits indicated in these specifications, sufficient air circulation must be generated using forced ventilation (which should remain permanently when the areas treated are in use).

The product must not be used for dehumidification of basement walls showing back-pressure water seepage; in these cases please contact our technical department.

Do not apply at temperatures under +2 °C or above +35 °C, to surfaces in direct sunlight, when it is about to rain, or on windy or misty days.

The manufacturer shall not be liable for any damage to the equipment resulting from an improper use of the material.

For further information and advice on safe handling, storage and disposal of chemical products, the user must refer to the most recent Safety Data Sheet, containing physical, ecological, toxicological and other data related to safety. All technical data shown in this Technical Data Sheet are based on laboratory tests. Actual measurement data may vary due to circumstances beyond our control. The information and requirements indicated in this Technical Data Sheet are based on our current knowledge and experience and are to be considered, in any case, purely indicative. They cannot guarantee the final result of the applied product and they have to be confirmed by exhaustive practical applications; therefore the user must test the suitability of the product for the intended application and its purpose. Users must always refer to the latest version of the local technical data sheet related to the product

TECHNICAL SPECIFICATIONS

SK45 - Single-product dehumidifying plaster

On SSD, make the rough coat and wait for 24 hours, drain the surface and make the plaster (guaranteeing a total thickness of at least 2 cm) with normal manual or mechanical equipment using the dehumidifying salts-accumulating ready-to-use mortar Tectoria MONO by Kimia SpA or similar product (consumption: 10 Kg/m²/cm).

The ready-to-use restoration mortar used to renovate walls subject to rising damp with a single product will be prepared and applied scrupulously following the instructions on the technical data sheets supplied by the manufacturer and must have the following characteristics:

- Maximum size of the aggregate EN 1015-1: 1.4 mm;
- Consistency of fresh mortar EN 1015-3: 135 mm;
- Workability time of fresh mortar EN 1015-9 > 30 minutes;
- Water absorption height for capillarity EN 1015-18 < 5 mm;
- Absorption by capillarity after 24 hours EN 1015-18 > 0.3 Kg/m²;
- Mechanical compression strength after 28 days (class CS II) EN 1015-12 > 1.5; < 5 N / mm²;
- Water vapor permeability coefficient EN 1015-19 < 15.

The product will be CE marked as R CS II restoration mortar according to EN 998-1.