



Tectoria DF

ST10-0221

NHL-based mortar for dehumidifying, macro-porous plasters to be applied after the anti-salts rough coat created using Tectoria RZ



DESCRIPTION

Tectoria DF is a white, ready-to-use mortar with hazelnut tones designed specifically for plastering and for restoring damp walls. It uses natural, fully recyclable materials; it contains materials heated to low temperatures thereby limiting the emission of CO₂ into the atmosphere and reducing the amount of energy used in production.

In contact with water, the hydraulic lime reacts to form hydrated products that are extremely insoluble and very stable in terms of the chemical base.

It is CE certified in compliance with the requirements for restoration mortars, type R, under EN 998-1.

ADVANTAGES

- Extremely light, breathable and porous.
- Effective in the presence of sulphates, chlorides and nitrates, and in general in all cases involving salts, even the most problematical (sea-front structures, old stables, etc...).
- Easy to be applied.

USES

Tectoria DF is used together with **Tectoria RZ** to restore masonry work subject to rising damp.

WORKS

- Multi-product dehumidifying plasters ([SA46](#))

APPLICATION

	Manual application		Workability timing: 105 ± 30 min
	Mechanical application		Mix water: 5,5-6 L / 25Kg
	Minimum thickness per layer: 20 mm in case of vertical application		

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.

Mix **Tectoria RZ** with potable water, according to the table above, in concrete mixer until a fluid and homogenous mixture is achieved (mixing time: 3-4 mins).

Apply the product by hand with a trowel, spreading it uniformly on the entire surface creating a rough coat of 5 mm at least.

If certain zones present salts during 1-2 days after the above-mentioned application, apply one more coat of **Tectoria RZ**.

Wait for 1-2 days (at 20°C), wet the support until SSD are obtained and create a thin layer of **Tectoria RZ** to create a good adhesion bridge for the next application of **Tectoria DF**. **Tectoria DF** must be applied on the last coat of **Tectoria RZ** still fresh respecting a minimum thickness of 2 cm avoiding to compact excessively this coat while smoothing the surface.

When using with a mechanical plastering machine, mix in

the machine like a normal ready-mixed product
When applied manually using a trowel, mix in a cement mixer for not more than 3-4 minutes.

We recommend you put 3/4 of the water required in the mixer then gradually add the remaining amount until the right consistency forms.

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.

Mix carefully to form a smooth mixture with a fluid consistency. It is not recommended that the traditional skimming level method be used, but it is better to use wooden or plastic levels that are removed during the final phase of application.

Subsequent levelling must be carried out when the plaster is completely cured (minimum 3 weeks), so as to seal any shrinkage cracks that may have formed, particularly in the case of thick layers of plaster. In the case of thick layers and uneven or weak substrates it is recommended that **Kimitech 350** mesh be inserted in the finish. The surface must be fully dried before top coats of paint (water vapour permeable only) can be applied.

CONSUMPTION

11 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
Apperance	Powder
Colour	White with hazelnut tones
pH	> 11
Application temperatures	+2 - +35 °C
Max dimension of aggregate EN 1015-1	3 mm
Granulometry EN 1015-1 (size a 3,00mm)	100 %
Bulk density of fresh mortar EN 1015-6	1400 ± 50 Kg/m ³
Air content EN 1015-3	6,2 %
Compressive resistance at 28 days (classe CS II) EN 1015-12	> 1,5; < 5 N/mm ²
Capillar water absorption after 24h EN 1015-18	> 0,3 Kg/m ²

Characteristics	Value for R mortar	Value
Dry bulk density EN 1015-10	Declared value	1330 Kg/m ³
Compressive resistance at 28 days EN 1015-11	CS II (1,5 – 5 Mpa)	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 capillar water absorption test EN 1015-18	≤ 5 mm	< 5 mm
Coefficient of permeability of water vapour EN 1015-19	Declared value	μ ≤ 15
Thermal conductivity I _{10, dry, mat} values EN 1745	Avarage value as per table (P = 50%)	0,39 W/m*K
Reaction to fire EN 13501 - 1	Declared value	A1
Durability	Declared value	NPD
Hazardous substances	Declared value	See SDS

WARNING

Product for professional use.

In the restoration of masonry walls affected by rising damp, **Tectoria RZ** has to be used always as first rough plaster, in combination with **Tectoria DF** and never used for other different application.

Using natural raw materials some chromatic variations can occur from a production batch to another.

In case the treated surface will be exposed, without any other finishing coat, use only materials from the same production batch. If this is not possible, it is necessary to plan the application on site in order to treat with the material from the same production batch, specific areas already separated from others areas with geometrical elements (string-courses, edges, corners, etc...).

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.

The product won't be mixed with mechanical stirrer, but only with concrete mixer (avoid a too long mixing time), and wait a few minutes before applying the mortar.

If the application is carried out with a plastering machine, choose a proper model in order to avoid the compression of expanded aggregates included in the mix.

If it is necessary to create a very thick dehumidifying plaster with **Tectoria DF**, proceed with several layers with a maximum thickness per coat of 2 cm. Between each coat wait for the necessary curing time in order to avoid the formation of cracks or problems in therm of adhesion to the

support.

If the application is carried out in poorly ventilated areas, in order to ensure a proper hydration of the product, install a forced ventilation.

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

SK46 - Dehumidifying multi-product plasters

Removal of old plaster using as reference the external showed level of rising damp and adding up 2 times the thickness of the wall to be treated. Clean properly the entire surface to be treated removing dusts, old varnishing, detached parts and greases. Wet the surface until SSD conditions are achieved and apply a rough anti-salts coat using Tectoria RZ by Kimia S.p.A. or a similar product. This product will be spread uniformly on the entire surface, respecting a consumption of 6 kg/m².

If certain zones present salts during 1-2 days after the above-mentioned application, apply one more coat of Tectoria RZ..

Wait for 1-2 days (at 20°C), wet the support until SSD are obtained and create a thin layer of Tectoria RZ to create a good adhesion bridge for the next application of Tectoria DF. Tectoria DF must be applied on the last coat of Tectoria RZ still fresh respecting a minimum thickness of 2 cm avoiding to compact excessively this coat while smoothing the surface.

The macro-porous dehumidifying mortar, to be applied after Tectoria RZ, with white colour and hazelnut tones, made out of NHL (CE marked according to EN 459) , with low water-soluble salts content and very compatible with materials used in ancient masonry buildings, will be prepared and applied scrupulously following the instructions on the technical data sheets supplied by the manufacturer and must have the following characteristics:

- Granulometry EN 1015-1 (size 3,00mm): 100 %;
- Compressive resistance at 28 days (CS II) EN 1015-12: > 1,5; < 5 N/mm²;
- Capillar absorption after 24h EN 1015-18: > 0,3 kg/m²;
- Height of capillar water absorption EN 1015-18: < 5 mm;
- Coefficient of permeability of water vapour EN 1015-19: $\mu < 15$;
- Fire reaction EN 13501-1: A1

Tests carried out by external laboratories on specific characteristics in terms of dehumidifying performances of the mortar (vapour permeability) will show the strong know-how of the Producer in case of the suggested dehumidifying solution.

The product will be CE marked as R mortar according to EN 998-1. The binder mix used in the product will be CE marked according to EN 459 009/CPD/A46/0003.