

Natural, hydraulic lime based mortar to realize dehumidifying macroporous plaster to apply over the Limepor RZ. CE marked (EN 998-1) product as restoration mortar R CS II.

Description

Tectoria DF is a white, ready-to-use mortar with hazelnut tones designed specifically for plastering and for restoring damp walls. It is CE certified as compliant with the requirements for restoration plasters, type R, under UNI EN 998-2. It has



been tested for the absence of gamma ray and/or radon gas emissions; 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; It contains no Chrome VI. 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.

Uses

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

Advantages

- 100% natural and not hazardous for users and for the environment
- Does not release gamma rays and radon gas (typical of many materials used in modern building).
- Extremely porous, breathable mortar.
- Low content of water-soluble salts and high resistance to sulphates.
- Ready-mixed product, ready-to-use and easy to apply.

Used in combination with Limepor RZ, Tectoria DF forms a multilayer dehumidifying system that complies with current European standards (UNI EN 998 type R) and WTA recommendations, characterised by:

- extremely light, breathable and porous, combined with good thermal insulation properties; eco-friendliness, given that the products used can be recycled as inert materials;
- can be applied to walls made of brick, natural and artificial stone of any thickness and under any exposure conditions (outside, inside, load-bearing, infill, basement and/or cavern walls, provided the rooms are adequately ventilated);
- 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...);
- perfectly compatible with breathable lime and silicate based mineral finishes.

Application

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

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

Brush the wall and clean it with a pressure washer until saturated (the substrate must be saturated with water but dry on the surface when the desalinating rough coat made using Limepor RZ is applied).

Mix the Limepor RZ and apply using a trowel, being careful to spread it evenly across the entire surface, (this first coat must not be smoothed, but left rough) to create a rough coat 5 mm thick. If, after 1-2 days, any parts of the wall show signs of salt efflorescence and/or particularly damp areas, apply another rough coat of Limepor RZ following the indications given above.

Wait for 1-2 days (at 20°C), saturate the wall substrate with water (to prevent cracking on shrinkage), wait until the surface is dry, then prepare a preliminary binding layer using Limepor RZ onto which, wet on wet, to apply the final Tectoria DF dehumidifying mortar using a plastering machine or trowel to a minimum thickness of 2 cm over the whole surface, being careful not to overly compress the float finish.

Tectoria DF must be mixed with approx. 25% drinking water (6-6.5 litres for each 25 kg bag). 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.

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.

Characteristics	Value
Appereance	Powder
Colour	White with shades of brown
pH in water dispersion	> 11
Application temperature	+2 - +35 °C
Granulometric distribution UNI EN 1015-1 (not-seved at 3,00mm)	100 %
Apparent volumetric mass of wet mortar UNI EN 1015-6	1550 ± 50 Kg/m ³
Air content UNI EN 1015-3	6,2 %
Compressive strenght 28 days (class CS II) UNI EN 1015-12	> 1,5; < 5 N/mm ²
Water absorption due to capillary action after 24 hours UNI EN 1015-18	> 0,3 Kg/m ²
Height of water suction UNI EN 1015-18	< 5 mm
Water absorption class UNI EN 1015-18	W1
Water vapour permeability UNI EN 1015-19	μ < 15
Fire reaction class UNI EN 13501-1	A1

Packaging

25 kg multilayer paper bags. 1.500 kg pallets.

Coverage

11 kg/m² per cm thickness.

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.

Warning

Product for professional use.

When restoring walls subject to rising damp, Limepor RZ must always be applied as a rough coat in combination with Tectoria DF. The use of natural raw materials may result in natural color variations from one production lot to another.

Before using, check bags have not been damaged, and do not use the products if there are any lumps.

Use the entire contents once the bags have been opened.

Only use enough water to obtain the right mix.

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 stirring device and agitator, but always with a cement 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 internal 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 technical specifications and application methods recommended herein are based on our current knowledge and experience and do not represent any form of guarantee of the final results obtainable with the product.

It is the customer's responsibility to check that this data sheet is still effective and has not been replaced with a more recent version, and that the product is suitable for the intended use (use the Qrcode to download the latest version of this document).