



## Tectoria M10

ST7-1219

*NHL based mortar used for masonry, break-fill, anchoring, plasters and reinforcing castings*



### DESCRIPTION

**Tectoria M10** is a ready-to-use mortar made out of natural, fiber-reinforced hydraulic lime; it contains entirely recyclable natural materials, fired at low temperatures, reducing emissions and energy consumption; it contains traditional materials with low soluble salt content; when in contact with water it forms hydrated products that are not very soluble and stable, they have basic nature.

It is CE marked according to the requirements of EN 998-2 for masonry mortars class M10 and according to EN 998-1 as a mortar for interior and exterior GP CS IV.






### ADVANTAGES

- High breathability, low hydraulic shrinkage.
- Mechanical features similar to those of a masonry building. It allows a homogeneous and isotropic chemical behaviour of renovated masonry.
- Ready-to-use and easy to lay.

### USES

Thanks to its high mechanical strength it is used for the consolidation of masonry structures, collaborative castings, FRCM reinforcements and break-fill operations.

### APPLICATION

	Manual application		Workability time of fresh mortar: 60 mins
	Mechanical device application		Mixing water: 4,5-4,75 lt/ 25Kg
	Max thickness per coat: 30 mm for vertical application		

**Tectoria M10** must be mixed with drinking water (see the table). It is advisable to introduce into the mixer 3 / 4 of water needed, and continuously add the product and the remaining water until the desired consistency is obtained. Mix thoroughly until you get a perfect amalgam. Apply with normal manual or mechanical equipment.

In case of mix with plastering machine (standard type), load it with **Tectoria M10** and regulate the flowmeter to a 5-6 l/min of flow rate, depending on the type of the machine used, until you get the consistency needed. Apply **Tectoria M10** from a distance of 20 cm, down from up of the masonry, uniformly. For plaster with thicknesses upper to a 30 mm, the application must be made through coats on the first one which is not troweled. **Tectoria M10** must be laid on clean surfaces, free of dust, flaking parts, varnishes, oil or any other material which could affect a good anchoring.

### CONSUMPTION

15 Kg/m<sup>2</sup>/cm

### PACKAGING

25 Kg bags.  
Pallet 60x25 – 1500 Kg

## 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
Appearance	Powder
Colour	Off-white
pH in water dispersion	> 11
Application temperature	+2 - +35 °C
Particle size distribution EN 1015-1 (granulometry 2,00mm)	100 %
Bulk of fresh mortar EN 1015-6	1900 Kg/m <sup>3</sup>
Consistency of fresh mortar EN 1015-3	150 mm
Compressive mechanical strength EN 1015-11	in 7 dd > 5 MPa in 14 dd > 8 MPa in 28 dd > 10 MPa
Flexural tensile strength	in 7 dd > 2,9 MPa in 14 dd > 3,7 MPa in 28 dd > 4 MPa

Characteristics	EN 998-2 limits	Value
Elements ratio in weight [%]	Declared value	Binder: 25-35 Aggregates 65-75 Additives: < 1
Chlorides content [%] EN 1015-17		≤ 0,1
Compressive strength in 28 days EN 1015-11 [MPa]		> 10
Initial shear resistance [MPa] with masonry elements in compliance with EN 771		0,15 [Table]
Capillar water absorption EN 1015-18		0,2
Water vapour permeability EN 1745		15/35 [Table]
Reaction to fire class		A1
Hazardous substances		See the SDS

## VARIANTS

The product is available in non-fibred version, preserving the same mechanical features of fibre-reinforced version and two-component version mixed with latex **Kimitech BC** instead of water (**Tectoria M15/BC**). **Tectoria M15/F** has a max granulometry of 1,2 mm.

Characteristics	Limit value for GP mortars	Value
Dry bulk EN 1015-10	Declared value	1850 Kg/m <sup>3</sup>
Mechanical compressive strength in 28dd EN 1015-11	CS I (0,4 – 2,5 Mpa) CS II (1,5 – 5 Mpa) CS III (3,5 – 7,5 Mpa) CS IV (≥ 6 Mpa)	CS IV
Adhesion EN 1015-12	Declared value	> 0,6 N/mm <sup>2</sup> -

		FP: B
Capillar water absorption EN 1015-18	Declared value	W2
Water vapour permeability coefficient EN 1015-19	Declared value	μ < 18
Thermal conductivity average values λ <sub>10, dry, mat</sub> EN 1745	Average value as per table (P = 50%)	0,84 W/m <sup>2</sup> K
Reaction class to fire EN 13501 - 1	Declared value	A1
Durability	Declared value	NPD
Hazardous substances	Declared value	See SDS

## WARNING

Product for professional use.

The use of natural raw materials may result in natural color variations from one production lot to another.

If the product is not covered, use only material from the same batch of production and organize the installation in continuity.

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.

Do not apply the mortar to flaking, loose surfaces: in this case consult our Technical Dpt.

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.

Saturate the support before the mortar application so as to avoid that the wall absorbs an excessive amount of mixing water of the mortar, which could cause its "burning", associated to possible delaminations and cracks.

If it is necessary to lay thick layers of plaster, it is recommended to be made in multiple coats of maximum 3 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.

It is no 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.

If the product is used to make reinforced plasters with non-traditional meshes (polymeric) in order to avoid that during the mortar application the mesh be pushed at direct contact against the support, not resulting incorporated in the jet and by acting as separation layer, is essential to create a rough coat with the structural mortar, apply and fix the network and then continue with the plaster execution

according to the directions indicated on the maximum thicknesses achievable per this coat, as shown before.

If subsequent levelling is to be carried out, this must only be done when the plaster is completely cured (wait for at least 1 week for any centimeter of thickness, and for a minimum of 3 weeks), so as to seal any shrinkage cracks that may have formed, particularly in the case of thick layers of plaster.

In case of reinforcing plasters, non-regular and weak support or very thick layer include in the skimming coat the mesh **Kimitech 350**.

The obligations of marking are not related to the intrinsic nature of a given product, but to the specific use intended for the material: before making the order in Kimia, the buyer shall submit all the documentation available to the worksite manager in order to determine the materials suitability (in terms of certifications and performance) in relation to the use for which they are intended.

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 verify the product suitability for its use by making previous tests before the application and check that this data sheet is still effective and it has not been replaced by more updated versions.