

Basic MALTA M10

ST3-0225



Natural hydraulic lime-based mortar for masonry class M10



DESCRIPTION

BASIC mortar M10 is a ready-to-use mortar based on natural hydraulic lime, fibre-reinforced; it uses fully recyclable natural materials, fired at low temperatures, reducing emissions and energy consumption; it is free from Chromium VI; it uses traditional materials, with a low content of soluble salts; in contact with water it forms hydrated products that are very insoluble and very stable of a basic nature.

It is CE marked in accordance with the requirements of UNI EN 998-2 for class M10 masonry mortars and according to UNI EN 998-1 as a GP CS IV mortar for interiors and exteriors..

USES

It is used for the consolidation of masonry structures: reinforced plaster; consolidation of vaults through the creation of collaborating hoods; FRCM reinforcements; reinforced restyling; bedding of curtain wall foundations.

APPLICATION

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

BASIC mortar M10 must be mixed with drinking water in the quantities shown in the table. It is advisable to introduce 3/4 of the necessary water into the mixer, adding the product and the remaining water continuously until the desired consistency is obtained. Mix thoroughly until you get a perfect blend. The product must not be added with any other binder during preparation and installation. Apply with normal manual or mechanical equipment. Do not stir the product by adding water once it has started to set.

In the case of mixing with a plastering machine (standard models), load the hopper with **BASIC mortar M10** and adjust the flowmeter to a flow rate of 5-6 l/min, depending on the machine used, until the desired consistency is obtained.

Apply **BASIC mortar M10** from a distance of about 20 cm, from the bottom of the masonry to the top, evenly. For plaster thicknesses greater than 30 mm, the application must be carried out in several coats, applying successive layers on the previous non-trowel layer.

BASIC mortar M10 must be applied to clean surfaces, free from dust, inconsistent parts, paints, grease and any other material that may affect its good anchorage.

CONSUMPTION

15 Kg/m²/cm

PACKAGING

Sac. 25 Kg.

Pallet 60x25 – 1500 Kg

STORAGE

The product is resistant to humidity. Store in sheltered and dry place; In these conditions and in intact containers, the product maintains its stability for 12 months.

Characteristics	Typical value
Appearance	Powdered product
Color	Smoky white
Type of binder (UNI EN 459-1)	NHL 3,5
pH in aqueous dispersion	> 11
Application temperature	+2 - +35 °C
Particle size distribution UNI EN 1015-1 (2.00mm feed-through)	100 %
Apparent density of fresh mortar UNI EN 1015-6	2000 Kg/m ³
Consistency of fresh mortar UNI EN 1015-3	150 mm
Tensile strength due to bending	a 28 gg > 3 MPa

Characteristic	Limitations EN 998-2	Typical value
Resistenza a compressione a 28 gg EN 1015-11 [MPa]	Valore dichiarato	≥ 10
Contenuto di cloruri [%] EN 1015-17		$\leq 0,1$
Adesione UNI EN 1015-12 [MPa]		$> 1,2$
Resistenza a taglio iniziale [MPa] in combinazione con elementi in muratura in conformità alla EN 771		0,15 [Valore tabulato]
Assorbimento d'acqua per capillarità EN 1015-18		0,2
Permeabilità al vapore acqueo EN 1745		15/35 [Valore tabulato]
Conducibilità termica EN 1745		1,17 W/mK (valore tabulato)
Classe di reazione al fuoco		A1
Sostanze pericolose		Vedere scheda di sicurezza

Characteristic	Limit value for GP mortars	Typical value
Apparent density in the dry state UNI EN 1015-10	Declared value	2000 Kg/m ³
Mechanical compressive strength a 28gg UNI 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 UNI EN 1015-12	Declared value	$> 0,6$ N/mm ² - FP: B
Water absorption by capillary UNI EN 1015-18	Declared value	W2
Water vapor permeability coefficient UNI EN 1015-19	Valore dichiarato	$\mu < 18$
Thermal conductivity values $\lambda_{10, dry, medium mat}$ UNI EN 1745	Average value from prospectus (P = 50%)	1.17 W/m*K
Fire reaction class UNI EN 13501 - 1	Declared value	A1
Durability	Declared value	NPD
Hazardous substances	Declared value	Vedi SDS

WARNINGS

Product intended for professional use.

The use of natural raw materials can lead to chromatic variations from one production batch to another.

If the product is used on sight, try to use only material from the same batch of production and organize the installation in continuity or, if this is not possible, provide for the

application of the product for environments or for mirrors defined by clean cuts in correspondence with string courses, edges, etc.

The amount of water in the dough should be kept to a minimum. Check the integrity of the packaging before use and do not use the product with lumps.

Use all the material once the package has been opened. Do not apply the mortar on friable and inconsistent surfaces: in this case, consult our technical department.

Do not apply at temperatures below +2°C or above +35°C, on sunny surfaces or with imminent rain forecast, on windy days or in the presence of fog.

Saturate the substrate before applying the mortar, in order to prevent the wall from absorbing an excessive amount of mortar mixture water, which could cause "burning", associated with possible detachments and cracks.

If it is necessary to carry out thick plasters, it is recommended to apply successive coats of a maximum of 3 cm after the previous layer has hardened, to avoid carrying out coatings of fresh plaster in excessively high thicknesses that may be affected by sliding movements during the setting period, or differentiated drying between the surface and the internal mass that could cause the formation of micro-cracks and/or the decrease in the adhesion of the plaster to the substrate.

If the product is used to make plasters reinforced with non-traditional (polymeric) meshes in order to prevent the mesh from being pushed into direct contact with the substrate during the application of the mortar, not being incorporated into the casting and acting as a separation layer, it is essential to make a scratch coat with the structural mortar, apply and fix the mesh and then continue with the execution of the plaster in any case following the indications on maximum thicknesses achievable for the above pass.

The subsequent skimming must be carried out to complete the curing of the plaster (wait at least 1 week for each centimeter of thickness, and at least at least 3 weeks), so as to seal any shrinkage lesions that may be generated, especially in the case of thick plasters.

In the case of reinforced plaster, uneven or weak substrates and heavy thicknesses, insert **Kimitech 350 mesh in the chosen finish**.

The marking obligations are not linked to the intrinsic nature of a given product, but to the use for which a specific material is used: before placing the order in Kimia, it will be the customer's responsibility to submit all the available documentation to the D.L. so that it can establish the suitability of the materials (in terms of certifications and performance) in relation to the use for which they are intended.

The technical characteristics and methods of application indicated by us in this bulletin are based on our current knowledge and experience, but cannot imply any



guarantee on our part on the final result of the product applied.

The customer is responsible for verifying that the product is suitable for intended use and to ensure that the technical bulletin is valid and not superseded by subsequent updates.

ECO-SUSTAINABILITY

Kimia products can support designers in the creation of:



- LEED® certified works
- lavori certificati GBC HOME® e HISTORIC BUILDING®
- "green procurement" of the Public Administration (Minimum Environmental Criteria)

For more information on the credits that can be acquired, contact the technical office to the email address ufficiotecnico@kimia.it