Basic INTONACO M5

ST1-0323

Natural hydraulic lime mortar for masonry class M5

EN 998-1 EN 998-2 CE

DESCRIPTION

Basic INTONACO M5 is a ready-to-use mortar based on natural, fibre-reinforced hydraulic lime; it contains fully recyclable natural materials, fired at low temperatures to reduce emissions and energy consumption; it does not contain Chromium VI; it contains traditional materials with a low content of soluble salts; in contact with water, it forms hydrated products that are very little soluble and very stable of a basic nature.
It is CE marked in accordance with the requirements of UNI EN 998-2 for class M5 masonry mortars and according to UNI EN 998-1 as GP CS IV mortar for interior and exterior use.

USES

It is used for the consolidation of masonry structures: reinforced plasters; consolidation of vaults through the construction of collaborative castings; reinforced repointing works and masonry works for foundations

APPLICATION

	Manual application		Workability time of fresh mortar: 60 mins
	Machine application		Mixing water: 4,25-5,5 lt/ 25Kg According to the desired workability
	Max thickness per coat: 30 mm for vertical applications		

Basic INTONACO M5 must be mixed with potable water in the quantities shown in the table.
Mixing must be carried out in a concrete mixer or in the mixer of the spraying machine for at least 5 minutes until you get a plastic, homogeneous, lump-free mixture. A mortar mixer or a drill equipped with an agitator can be used, it depends on the quantity to be prepared. Mixing must take place at low speed to avoid entrapping air.

It is advisable to introduce 3/4 of the required water into the mixer, adding the product and the remaining water continuously, until the desired consistency is achieved.
The product must not be added during preparation and laying with other binder.
Apply with normal manual or mechanical equipment. Do not mix the product by adding water once it has started setting.
When mixing with a plastering machine (standard models), load the hopper with Basic INTONACO M5 and adjust the flow meter to a flow rate of 5-6 l/min, depending on the machine used, until the desired consistency is achieved.
The setting values referring to mechanised application are as follows:

- Hose diameter: 30 mm
- Hose length: 30 m
- D7-pumps
- All remaining characteristics corresponding to a
- plastering machine PFT G5

If machines with different characteristics are used, it is advisable to contact the manufacturer to check that they are used correctly.

Apply Basic INTONACO M5 from a distance of approximately 20 cm, from the bottom of the masonry towards the top, evenly. For plaster thicknesses of more than 30 mm, the application must be carried out in several coats, applying layers on top of the previous non-framed layer.
Basic INTONACO M5 must be applied on clean surfaces, free of dust, loose parts, paint, grease and any other material that may affect good adhesion.
Properly wet the substrate before application of the product (SSD condition).

CONSUMPTION
15 Kg/m²/cm

PACKAGING
Bag 25 Kg

STORAGE
The product fears moisture. Store in a sheltered and dry place; in these conditions and intact containers, the product maintains its stability for 12 months.

Characteristics	Typical value
Appearance	Powder
Color	Off white
Type of binder (UNI EN 459-1)	NHL 3,5 and NHL 5
pH in water dispersion	> 11
Application temperature	+2 - +35 °C
Max size of the aggregate UNI EN 1015-1	3 mm
Bulk of fresh mortar UNI EN 1015-6	1900 Kg/m³
Consistency of fresh mortar UNI EN 1015-3	150 mm
Mechanical compressive strength UNI EN 1015-12	at 28 days > 5 MPa
Flexural strength	at 28 days > 2,5 MPa
Elastic modulus [MPa]	9600

Characteristics (mixing water 17%)	Limits EN 998-2	Typical value
Elements ratio in weight [%]	Declared value	Binder: 25-35 Aggregates: 65-75 Additives: < 1
Chloride content [%] EN 1015-17		≤ 0,1
Compressive strentgth in 28 dd EN 1015-11 [MPa]		> 5
Initial shear strength [MPa] with masonry elements in compliance with EN 771		0,15 [Table value]
Capillar water absorption EN 1015-18		0,2
Water vapour permeability EN 1745		15/35 [Table value]
Reaction to fire class		A1
Hazardous substances		Check SDS

Characteristics (mixing water 17%)	Limit value for GP mortars	Typical value
Dry bulk UNI EN 1015-10	Declared value	1910 Kg/m³
Mechanical compressive strength in 28dd 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 III
Adhesion UNI EN 1015-12	Declared value	≥ 0,8 N/mm² - FP: B
Capillar water absorption UNI EN 1015-18	Declared value	W2
Water vapour permeability UNI EN 1015-19	Declared value	μ < 18
Average thermal conductivity $\lambda_{10, dry, mat}$ values UNI EN 1745	Average value (P = 50%)	0,97 W/m*K
Reaction to fire class UNI EN 13501 - 1	Declared value	A1
Durability	Declared value	NPD
Hazardous substances	Declared value	Check SDS

WARNING
Product for professional use.
The use of natural raw materials may result in natural color variations from one production batch 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.
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 that this be done in successive 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.

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 a later levelling is to be carried out, this has to 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 discontinuity points, non-homogeneous or weak substrates and high thicknesses, insert Kimitech 350 net in the chosen finish.

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

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.