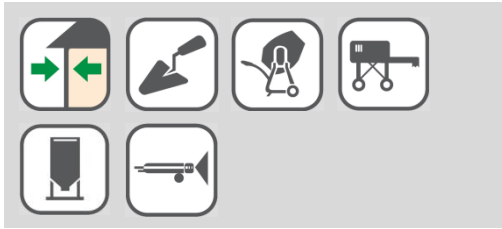
Malte e sistemi per Risanamento restauro Bioedilizia

CALCESTRUTTURA IM10

Mortar and fiber plaster based on natural hydraulic lime NHL 3.5 certified EN 459-1

Calcestructure System. Natural hydraulic lime-based mortar certified NHL 3.5 according to EN 459-1 suitable for use as an interior and exterior GP-type plaster. Complies with EN 998-1 and EN 998-2 and classified M10. CE mark. Particularly suitable for the creation of highly breathable plasters in the sectors of green building and conservative historical restoration in structural reinforcement works. It can be used both as a mortar for resurfacing, stitching and unstinting operations or the creation of parts of solid brick or natural stone walls and as a hand or machine plaster. The product has the color of NHL 3.5 lime and therefore turns light hazelnut once dried.



SUBSTRATE PREPARATION

The substrate must be mechanically resistant, homogeneous, rough, flat and clean. If it is not flat, it must be previously levelled with the same material. The substrate must be free of dust, grease and all sediments that damage the plaster's adhesion. In the frequent case of restoration work, careful stripping of the mortar joints must be carried out beforehand in order to eliminate all friable and mechanically weak materials. Prior to application, the substrate must be wetted to the point of refusal by wetting with water to saturation.

MANUAL APPLICATION: PLASTER/MORTAR

CALCESTRUCTURA IM10 is prepared by mixing the powder with approximately 20-22% water (5.0-5.5 l per 25 kg bag). It is recommended to pour the water first, then add the entire powder of the product. Mix thoroughly and continuously until a plastic, thixotropic consistency is obtained. Mix in a concrete mixer for no more than 5 minutes. Do not add any other binders or inert agents to the product in order not to change its mechanical strength or application characteristics. To make a plaster with **STRUCTURAL** mesh, proceed with the application of a first coat of covering roughcast with a thickness that is as uniform as possible and sufficient to be able to incorporate the mesh itself. It is recommended to fix the **ANIMA 10** connectors in advance so that after applying the first coat you can proceed very easily to hang the mesh and fold up the connectors. Fresh on fresh apply the second coat for a minimum total thickness of 2.5 - 3.0 cm. The reinforcing mesh should be positioned halfway through the total thickness of the mortar. Do not mix the product by adding water once it has started setting.

MACHINE APPLICATION: PLASTERING

Product designed for application by plastering machine with screw and lung D6-3. To plaster, pour the contents of **CALCESTRUCTURA IM10** into the hopper of a plastering machine on a continuous cycle, adjust the flow meter until a plastic-thixotropic consistency is obtained. Spray the product at a distance of 20-25 cm approx. To insert the reinforcing mesh in this case proceed to fix the mesh directly onto the support itself with the **ANIMA 10** connectors: the material projected onto the wall with the plastering machine will distance the mesh from the support by incorporating the mesh itself. Also in this case ensure that the net at the end of the operation is approximately half the thickness of the material applied.

Complies with all European standards
EN 998-1, EN 998-2.
NHL 3,5 EN 459-1

ADVANTAGES

High breathability.
Eco-friendly product, low environmental impact.
Low content of water-soluble salts.
Chemical compatibility with historical mortars.
FEase of application, plastic-thixotropic rheology and low shear stress.
Reduced plastic/hydraulic shrinkage.
High mechanical resistance.
Thixotropy.
In case of restoration it offers excellent physical-mechanical compatibility with the existing structure.

USES

Creation of breathable structural plasters for interiors and exteriors by hand or machine that can be reinforced with:
• Alkaline-resistant, low-zirconium glass fiber meshes: **STRUTTURALE 40** and **STRUTTURALE 60** fixed to the masonry with **ANIMA 10** connectors;
• Stainless steel meshes;
Carrying out patching or stitching operations.
Carrying out structural reinforcements on architectural elements (arches, vaults, pillars) by inserting **ANIMA 10 i**nto the masonry courses.

STORAGE

Store in a dry place for no more than 12 months.

All the info on **www.premierpremiscelati.it**

RENOVATION, RESTORATION AND GREEN BUILDING CALCESTRUTTURA IM10

Mortar and fiber plaster based on natural hydraulic lime NHL 3.5 certified EN 459-1

CHARACTERISTIC DATA

Appearance	Hazelnut-coloured powder
Application temperature, °C	+5 a +35 °C
pH in aqueous solution	12
Grain size range, EN 1015-1	0 – 2,5 mm
Apparent density of powder	1300 Kg/m^3
Apparent density of fresh mortar, EN 1015-19	1800 Kg/m^3
Apparent density of hardened mortar, EN 1015-19	1600 Kg/m^3
Mixing water	20 – 22%
Fresh mortar consistency, EN 1015-3	
Minimum thickness per layer	1,5 cm
Maximum thickness per layer	2,5 cm
Yield	14,5 Kg/m^2 per cm of thickness

PERFORMANCE DATA EN 998-1: MORTARS FOR INTERNAL AND EXTERNAL PLASTERING

Compressive strength, EN 1015-11	Class CS IV
Adhesion, EN 1015-12	≥ 0,5 MPa
Capillary water absorption, EN 1015-18	Classe W1
Water vapor permeability coefficient, EN 1745	15/35
Thermal conductivity, EN 1745	0,67 W/mK (v.t.)
Reaction to fire, EN 13501-1	A1
Mixing water	20 – 22%
Durability	NPD

PERFORMANCE DATA EN 998-2: SPECIFICATIONS FOR MORTARS FOR MASONRY WORKS - MASONRY MORTARS

Compressive strength, EN 1015-11	Class M10
Initial shear resistance in combination with masonry elements in accordance with EN 771771	0,15 Mpa (v.t.)
Chloride content, EN 1015-17	≤ 0,1%
Water vapour permeability, EN 1745	15-35 (v.t.)
Thermal conductivity, EN 1745	0,67 W/mK (v.t.)
Capillary water absorption, EN 1015-18	0,25 kg/m^2*min^0,5)
Reaction to fire, EN 13501-1	A1

WARNINGS

Product intended for professional use. Check the integrity of the packaging before use and do not use the product if there are lumps. Do not mix the product by adding water once it has started to set. Any small chromatic variations do not in any way damage the final technical performance of the product. In case of application on recently created plasters, wait at least 3 weeks before applying the product. The characteristics of the product listed above respond to standard environmental conditions (20-23°C and 65% R.H.). The customer is required to verify that the product is suitable for the intended use and to ensure that this technical document is valid and not superseded by subsequent updates. The updated technical documents can be found on the website **www.premierpremiscelati.it**.