

Injection mortar based on pure natural hydraulic lime NHL 3.5 certified EN 459-1

**Calcestruttura system. Injection mortar based on pure natural hydraulic lime certified NHL 3.5 according to EN 459-1. classified M15 according to EN 998-2 as masonry mortar type G.**

**Elastic modulus:**

**Suitable for low-pressure injections for consolidating traditional or brick masonry, particularly in green building and restoration. CE marking.**

#### SUBSTRATE PREPARATION

Proceed beforehand by grouting all the lesions and cracks present in the masonry with the **PREMIER CALCESTRUTTURA IM15** or **CALCESTRUTTURA MMS** products. In the case of plastered masonry, check the adhesion of the plaster to the support to avoid unwanted sticking.

Drill the masonry with holes with a diameter of 20/25 mm in correspondence with the joints of the bedding mortar and insert the injectors spaced with a 50x50 cm mesh. (4 injectors per m<sup>2</sup>).

Before proceeding with the injection, carefully wash the inside of the masonry cavity with lightly pressurized water through the previously positioned injectors and always proceeding from the highest point to the lowest.

#### APPLICATION

**CALCESTRUTTURA MI 15** must be mixed with approximately 32-34% of drinking water. It is advisable to introduce 3/4 of the necessary water into the mixer, successively and continuously adding the product and the remaining water until the desired consistency is obtained, homogeneous and free of lumps. The product must not be added with any other component other than the mixing water during preparation and installation. **CALCESTRUTTURA MI 15** must be injected into the walls with normal pumps, manual or electric, at low pressure, using injectors fixed in the perforations and proceeding from the lower holes towards the upper ones. From bottom to top, proceed with the injection of **CALCESTRUTTURA MI 15** with special manual or electric equipment until the masonry is completely saturated.

#### WARNINGS

Product intended for professional use. Check the integrity of the package before use and do not use the product with lumps present. Do not remix the product by adding water once it has started to set. Any color variations in the product from batch to batch are attributable to the use of natural raw materials. 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to verify that the product is suitable for the intended use and to ensure that this technical document is valid and not superseded by subsequent updates.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](http://www.premierpremiscelati.it).



#### ADVANTAGES

- High breathability.
- Eco-friendly product, with low environmental impact.
- Low content of water-soluble salts.
- High resistance to sulphates.
- High fluidity and ability to penetrate the masonry.
- Low water-cement ratio and compensated plastic/hydraulic shrinkage.
- Excellent chemical-mechanical compatibility with historical mortars.
- High mechanical resistance.

#### USES

Interventions using low pressure injection: Structural reinforcement of damaged brick, tuff, stone and mixed walls, pillars, load-bearing vaults. Use on 'brick walls'. The product has compositional characteristics that make it suitable for strengthening masonry works in green building.

#### STORAGE

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

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#### CHARACTERISTIC DATA

Appearance	Hazelnut colored powder	
Application temperature, °C	+5 a +35 °C	
pH in aqueous solution	12	
Grain size range, EN 1015-1	0 – 100 µ	
Apparent density of the powder	900 Kg/m <sup>3</sup>	
Apparent density of fresh mortar, EN 1015-19	1900 Kg/m <sup>3</sup>	
Apparent density of the hardened mortar, EN 1015-19	1500 Kg/m <sup>3</sup>	
Mixing water	33 – 36% approx.	
Mixture fluidity, EN 445	0 min	25 - 40 s
	30 min	30 - 45 s
	60 min	45 - 60 s
Segregation	Absent	
Consumption	1,45 Kg/dm <sup>3</sup>	

*The data reported refer to laboratory tests; in practical construction site applications these can be significantly modified depending on the installation conditions. The user must in any case verify the suitability of the product for the intended use, assuming all responsibility deriving from its use.*

#### PERFORMANCE DATA EN 998-2:

#### SPECIFICATIONS FOR MASONRY MORTARS - MASONRY MORTARS

Compressive strength, EN 1015-11	Class M15
Elastic module	
Initial shear strength in combination with masonry elements in accordance with EN 771	0,15 Mpa (v.t.)
Chloride content, EN 1015-17	≤ 0,1%
Water vapor permeability, EN 1745	5-20 (v.t.)
Water absorption by capillarity, EN 1015-18	0,5 Kg/m <sup>2</sup> *min <sup>0,5</sup> )
Reaction to fire, EN 13501-1	A1