



Injection mortar based on natural hydraulic lime NHL 5 certified UNI EN 459-1 and Bio Pozzolana. Cement-free product.

Cement-free injection mortar based on natural hydraulic lime, NHL 5 certified according to UNI EN 459 1 and Bio Pozzolana, classified M 10 and CE marked according to UNI EN 998 2 as a type G masonry mortar. The product has high breathability characteristics that guarantee the exchange of humid air between the inside and outside of the building, offering healthy environments and living comfort over time. Suitable for low pressure injections for the consolidation of traditional or brick masonry in the construction sectors green building and historical conservative restoration. Ideal product for restoration operations under the protection of the Superintendencies for Architectural and Environmental Heritage.

SUBSTRATE PREPARATION

Proceed in advance by filling of all the lesions and cracks in the masonry with the products **OPUSTORICA IM 10** or **OPUSTORICA MM 5**. In case of plastered masonry, check the adhesion of the plaster to the support to avoid unwanted sagging.

Perform the drilling of the masonry with holes of diameter 20 25 mm in correspondence with the joints of the bedding mortar and insert the injectors spaced with a 50 x 50 cm mesh (4 injectors per m²).

Before proceeding with the injection, perform a thorough internal washing of the masonry cavity with water under light pressure through the injectors previously positioned and always proceeding from the highest to the lowest point.

APPLICATION

OPUSTORICA MI10 must be mixed with approximately 33-35% 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. **OPUSTORICA MI 10** 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 **OPUSTORICA MI 10** with special manual or electric equipment until the masonry is completely saturated.

WARNINGS

OPUSTORICA intended for professional use. Check the integrity of the package before use and do not use the product with lumps. 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. Do not add additives or other products to the dough. Use all the product once the package is opened. The performance characteristics of the product refer to conditions dictated by the reference technical standards. **OPUSTORICA MI10** can be used when the ambient temperature is within the range of 5-35 °C. The hardening of the product is based on hydraulic setting, which is delayed at low temperatures. 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 technical documents can be found on the website www.premierpremiscelati.it.



Complies with European standard UNI EN 998-2. M10 class.

ADVANTAGES

Cement-free product.

Product formulated with historic binders with low environmental impact and formulated in accordance with green building criteria.

High breathability.

High chemical and physical-mechanical compatibility with the materials used in ancient times.

High fluidity and ability to penetrate the masonry. Low water-cement and shrinkage ratioplastic /hydraulic compensated

Low content of water-soluble salts. High durability.

EMPLOYMENTS

Interventions using low pressure injection: structural reinforcement of walls, pillars, damaged load-bearing vaults in brick, tuff, stone and mixed materials. Use on "sack walls".

The product has compositional characteristics that make it suitable for strengthening masonry works in green building

STORAGE

Packaged in 25 kg bags with anti-humidity film. Store in a dry place for no longer than 12 months.





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TECHNICAL CHARACTERISTICS

Appearance	Hazelnut colored powder	
Application temperature, °C	+5 a +35 °C	
pH in aqueous solution	12	
Grain size range, EN 1015-1	0 – 300 µ	
Apparent density of the dust	1000 Kg/m ³	
Apparent density of fresh mortar, EN 1015-19	1900 Kg/m ³	
Apparent density of the mortar hardened, EN 1015-19	1400 Kg/m ³	
Mixing water	33 - 35% approx. – 8,5L/ 25kg bag	
Mixture fluidity, EN 445	0 min	45 s
	30 min	48 s
	60 min	50 s
Yield	1,4 Kg/dm ³	
Segregation	Absent	

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 us.

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

Compressive strength, EN 1015-11	Class M10
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	15-35 (v.t.)
Water absorption by capillarity, EN 1015-18	≤1 kg/m ² *min ^{0,5})
Reaction to fire, EN 13501-1	A1

RENOVATION, RESTORATION AND GREEN BUILDING MI10

