





natural hydraulic lime material NHL 5.0

# CALCEPURA INIEZIONI (INJECTIONS) IS A NATURAL, STRUCTURAL, BREATHABLE MORTAR, CLASSIFIED M15, BASED ON CALCEPURA BINDING NHL 5.0 SELECTED AGGREGATES WITH CONTROLLED GRAIN SIZE AND SPECIFIC ADDITIVES THAT IMPROVE WORKABILITY

## **COMPLIES WITH UNI EN 998-2 STANDARD**

## USES

Thanks to the quality and value of CALPURA LEGANTE, the product is ideal for consolidation injections in the reinforcement and structural adjustment of historic masonry or in the green building sector. CALCEPURA INIEZIONI has high water vapor permeability and limited reactivity to salts contained in masonry contributing to improved living comfort.

## ADVANTAGES

- Compatible with materials of ancient tradition
- Prevents the occurrence of fungi and mold
- High permeability to water vapor
- High mechanical performance

## WARNINGS

Protect the product from rain, runoff, frost, rapid drying or strong ventilation for at least 48 hours after application.

TECH	NICAL	DATA

Class UNI EN 998-2	M15
Colour	light azelnut
Particle size	0-0,4mm
Powder density mass (kg/m³)	1350 kg/m <sup>3</sup>
Apparent density mass of fresh mortar (kg/m³)	1900 kg/m³
Hardened density mass (kg/m³)	1700 kg/m³
Mixing water	33% (±3)
Dough ph	= 12
Separation	absent
Exudation test	0,1% - EN 445
Application temperature	+5°C/+35°C
Fire reaction	euroclass A1
Capillary water absorption	> 0,4 kg/(m <sup>2</sup> min <sup>0,5</sup> )
Water vapour permeability coefficient	μ 15/35
Thermal conductivity (v.t. P=50%)	λ 0,83 W/mK
Initial shear strength	0,15 N/mm <sup>2</sup>
Mechanical resistance to compression (28dd)	> 18 N/mm <sup>2</sup>
Mechanical resistance to bending	> 3 N/mm <sup>2</sup>
Mixing times for laboratory tests	according UNI EN 1015-2:2007
Storage	if properly stored in a sheltered, dry place in its original container,
	the product maintains its properties for 12 months.
Supply	20 kg bags / 64 bags pallet / silos





## **PREPARATION OF THE SUBSTRATE**

The areas to be consolidated with CALCEPURA INIEZIONI should be grouted or plastered over the entire surface with mortars from the CALCEPURA RANGE, at the same time inserting tubes or injectors at a suitable distance (recommended mesh 50×50 cm) to perform the subsequent filling of CALCEPURA INIEZIONI.

In this way, the containment of hyperfluid mortar is guaranteed without changing the breathability of the masonry. Always inject from the bottom to the top to promote the escape of air and ensure the continuity of structural compaction. Before injecting the filler and consolidating mortar inside cracks, subsidence, cavities, and detachments, it is necessary to saturate the entire internal structure with water using the same access routes provided for the mortar itself. Proceed with the injection of CALCEPURA INIEZIONI only after making sure that the structure has absorbed all the injected water.

## **PREPARATION OF THE PRODUCT**

To prepare CALCEPURA INIEZIONI mixing one 20-kg bag with the dose of clean water indicated on the package. Pour the water into the container and then add the powder gradually.

Mixing can be done in a concrete mixer, bucket (by hand or with a low-speed mechanical stirrer), or with a continuous mixer. Mix until a homogeneous lump-free consistency is obtained.

Alternatively, use a plastering machine to simultaneously mix and pump the product by employing stator-rotor of suitable capacity. Use all the prepared product without recovering it in the next mixing. Employ running water not subject to the influence of outside temperatures. The quality of the mortar, guaranteed by its strictly natural origin, will be compromised by the addition of any dose of other element.

#### **APPLICATION**

CALCEPURA INIEZIONI is applied by injection with mechanical pumps, pressure tanks or by gravity pouring.

It is preferable to inject the material from the bottom up to ensure that all the air contained in the inner section involved in the operation is expelled, avoiding the formation of empty pockets. When the grout escapes from the upper injector, stop the injection, close the injector in service and continue with the operation on the upper one.

Proceed in the same way until the top of the lesion is reached.

On horizontal surfaces, on the other hand, proceed by pouring or make an inlet injector on the area of the detachment and a few outlet holes at points diametrically opposite to the injection hole. Here, too, backfilling will occur as the mortar overflows from the exit holes. CALCEPURA INIEZIONI guarantees long workability and pumping times and does not segregate inside the pumps even when subjected to working pressure.

It can also be pumped at considerable distances and at high heights, allowing the work point on the ground floor of the construction site to be equipped and avoiding manual handling of bags and equipment.

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