CALCE IDRAULICA NATURALE NHL 3,5 - 5

NATURAL HYDRAULIC LIME NHL 3,5 / NHL 5
Conforme alla norma UNI EN 998-1

DESCRIPTION

The CALCE DEI BERICI is a Natural Hydraulic Lime produced exclusively by firing a limestone marl, in traditional ovens in layers at temperatures below 1200 ° C. Then, after extinction, the lime is "seasoned" for a prolonged period of time, so as to ensure complete hydration and finally is ground and refined with wind separators.
Diffractometric analysis reveals the presence of dicalcium silicate and calcium hydroxide (free lime) typical of natural hydraulic calcium. The absence of typical clinker compounds and the high content of free lime determine a slow and gradual setting with a continuous increase in mechanical strength during the months following the installation.
Colour light hazelnut, it is produced in the two classes of mechanical resistance (expressed in N/mm^2 at 28 days of maturation), defined by UNI EN 459-1:2010, namely NHL 3,5 and NHL 5.

COLOUR

Light hazelnut

CLASS RESISTANCE UNI EN 459-1

NHL 3,5
NHL 5

USE

CALCE DEI BERICI is used in the preparation on site of mortars for masonry and interior and exterior plasters. The mechanical characteristics, the high degree of porosity and the very low content of water-soluble salts of mortars made with Natural Hydraulic Lime recommend its use in restoration, renovation and green building.

APPLICATION

- CALCE DEI BERICI must be mixed with well washed aggregates and with controlled grain size, according to volumetric dosages that indicatively can vary between 350 and 500 kg of product per cubic metre of aggregate. Once mixed with water, the mixture improves its workability if it is left to rest for 10-15 minutes before application.
- Inert grain size and quantity of mixing water can have a considerable influence on the mechanical characteristics of the mortar obtained.
- Mechanical resistances of CALCE DEI BERICI are in fact determined in the laboratory according to the procedures prescribed by
- the UNI EN 459-2 standard, mixing 450g of lime and 1350 g of normalized sand with 248g of water for NHL 3,5 and with 225 g of water for NHL 5.
- The mechanical resistance that can be obtained on site depends on many factors (temperature, humidity, binder and water dosage, type of inert).
- When used on site, it is therefore recommended to fine-tune the mixtures on the basis of practical tests, since the multiplicity of aggregates on the market does not allow them to be based on standardised dosages.

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SUPPLY - STORAGE

It is sold in bulk and in a 25 kg bag (only NHL 3,5).
Store in the original packaging in a dry place for a maximum period of 12 months.

TECHNICAL CHARACTERISTICS

	NHL 3,5	NHL 5
Apparent density	0,70 ÷ 0,76 g/cm ^{3}	0,74 ÷ 0,80 g/cm ^{3}
R_c 7 days	-	$\geq$ 2 N/mm ^{2}
R_c 28 days	$\geq$ 3,5 N /mm ^{2}	$\geq$ 5 N/mm ^{2}
Start of setting tim	> 4 hours	> 2 hours
Stability	< 1 mm	< 1 mm
SO_3	< 0,2 %	< 0,2 %
Free lime	> 25 %	> 15 %
Residue 90 µm	< 4 %	< 4 %

WARNINGS

Apply only at ambient and substrate temperatures between +5° and +30°, in the absence of wind, to avoid disintegration due to frost or cracks and "burns" due to rapid evaporation of water.
Mortars realized with CALCE DEI BERICI can be applied on traditional brick and natural stone substrates; for applications on particularly smooth surfaces (concrete), insulating materials (even natural ones), large-sized bricks and on most thermo-bricks, special application devices and/or product additives are necessary.
The "hydraulic" characteristics of lime refer to the property of taking in water, natural hydraulic lime are not "healing" products for damp masonry in the current commodity meaning of the term.

Le caratteristiche prestazionali riportate si riferiscono a prove di laboratorio, i valori possono subire scostamenti in funzione delle condizioni climatiche e modalità di messa in opera. L'utilizzatore deve verificare l'idoneità del prodotto all'impiego previsto.

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