



## NATURAL HYDRAULIC LIME NHL 5

PRODUCT SHEET

**NHL 5 (UNI EN 459-1:2010)**  
**Low sulfates and alkals content**  
**Excellent for green building and restoration**

**Excellent for mortars and plasters**  
**High mechanical resistance**  
**100% free from additives**  
**100 % Made in Italy**

### BRIEFLY

Natural Hydraulic Lime NHL 5, classified according to the standard UNI EN 459-1:2010, is obtained by calcination of marly limestones, very rich in silica and allumina, in vertical kilns with a natural draught and a "softly" burning process at about 1000°C. Mechanical characteristics, porosity and the low quantity of soluble salts, ensure a full compatibility of Natural Hydraulic Lime NHL 5 with traditional building materials (stone, brick, etc.). Highwater vapor permeability, capacity to prevent fungi and molds, optimal regulatory hygrometricalfunction of environments, ensure the execution of building with high living standards.

### ORIGIN

Building lime comes from natural raw materials (limestone marl) extracted in the Central Appennine cave. Raw materials undergo a selection process based on precise compositional characters. The particular size of the limestone ensures a controlled burning.

### BURNING

Burned in vertical kilns at temperatures lower than 1200° C. The calcined product, once cooled, undergoes a controlled hydration process and then milled in ball mills. A separator a wind then extracts the finest part of the lime that in ready for packaging.

### SLAKING

The calcined product, once cooled, undergoes a process of controlled hydration. The grinding is done in ball mills. A wind separator extracts the finest part of the lime, which is transported to destination in tank or in buckets.

### CERTIFICATION

CE marking: NHL 5 (UNI EN 459-1:2010)

### USES

The Natural Hydraulic Lime- NHL 5 is used for the realization of mortar and plaster, specific for historical buildings restoration and green building.

### STORAGE

Storage in a covered and dry place.

### PACKING

The product is available in tank, big-bags or in buckets (25 kg/each).

### DOSAGE

Natural Hydraulic Lime NHL 5 dosage is 250-350 kg of Natural Hydraulic Lime NHL 5 per cubic meter of appropriate sand.

### SAFETY INSTRUCTIONS

Irritating to eyes and skin. Do not take internally. Wear suitable gloves and eye/face protection; in case of contact with eyes rinse immediately with water and seek medical advice - keep out of the reach of children.





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## CHEMICAL & PHYSICAL DATA

Physical state	Powder
Color	Pinkish hazel
Bulk density	0,7 g/cm <sup>3</sup>
Residual @0,09 mm	< 10 %
Residual @0,20 mm	< 0,5 %
Penetration (Plunger)	> 10 mm e < 50 mm
Stability	≤ 0,5 mm
Air content	≤ 5 %
Setting beginning time	> 1 h
Setting ending time	11 h
Free water	≤ 2 %
Compressive strength (7 days)	≥ 2 MPa
Compressive strength (28 days)	≥ 5 MPa e ≤ 15 MPa
CaO	57,4 %
Available lime	17,63 %
SO <sub>3</sub>	0,63 %
SiO <sub>2</sub>	13,86 %
Fe <sub>2</sub> O <sub>3</sub>	2,19 %
Al <sub>2</sub> O <sub>3</sub>	4,57 %
Na <sub>2</sub> O+K <sub>2</sub> O	1 %
Loss on ignition	19 %

The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.

To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, incompetent preparation, inexperienced or negligent application, or ordinary wear and tear.

Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor (and not la Banca della Calce Srl), is responsible for procedures relating to the application of the product.

ULTIMO AGGIORNAMENTO 02/9/19

