

**PRODUCT DESCRIPTION**

CALIBRO NHL is a Natural Hydraulic Lime NHL plaster, according to EN 459, eco-compatible, suitable for damp-proofing, salt-resistance and anti-condensation treatments on any type of damp wall, both outdoors and indoors.

**PRODUCT APPLICATION**

- Walls with evident humidity and salt deposits caused by capillary rising damp
- To create anti-condensation plaster

**ADVANTAGES**

- Natural lime-based product, NHL according to EN 459
- Eco compatible
- 2 in 1: Rinzaffo and Intonaco in a single solution
- Also machine-applicable
- Suitable for indoor and outdoor use; it guarantees long-lasting sound and stable restoration
- Suitable for all types of intervention and the reconstruction of walls of historical or artistic value
- It inhibits the development of any form of condensation
- Suitable to coat all types of walls

**PREPARATION AND APPLICATION Preparing the surfaces**

Remove the existing plaster up to 50 – 100 cm above the highest visible line of the rising damp. Remove all loose and brittle parts, which could prevent even adhesion to the surface. In case of high salt concentration, scrape or brush the wall until the original masonry is visible. Should there be damaged parts on the wall, these must be restored with new material.

**Preparing and applying the mixture**

First fill the cavities and level the surface.

CALIBRO NHL is applied in two subsequent layers as follows:

**1st Rough coat layer**

The rough coat must be performed according to one of the following options:

- If applying the product on damp walls without a considerable amount of salt, apply an anchoring layer at least 5-mm thick by mixing a bag of CALIBRO NHL with 6 L of water (equal to 30% in weight) with a whip-fitted drill for no longer than 3-4 minutes and in any case until a smooth mixture with no lumps is obtained
- If applying the product on damp walls without a considerable amount of salt, or if the product is used



with an anti-condensation function or in non-absorbent substrate conditions, apply a first anchoring layer by applying CALIBRO RINZAFFO (see the relevant technical data sheet)

**2nd Plaster layer**

Apply CALIBRO NHL the day after the anchoring layer has been applied, with a minimum thickness of 2 cm.

For thicknesses greater than 3 cm, apply in several layers at a distance of at least 24 hours from each other; it is recommended to roughen the surface of the base layer in order to optimise adhesion of the next layer.

In the presence of walls, mixed or out of plumb by more than 3-4 cm and with non-consistent plaster thicknesses, create a first layer of regularising plaster in which it is recommended to use REVOMAT mesh (see relevant technical data sheet) fixed to the masonry with CONNECTORS 20 (see relevant technical data sheet).

**Preparing the mixture**

CALIBRO NHL can be mixed with a whip-fitted drill, a concrete mixer or a planetary mixer.

If mixing with a whip-fitted drill, pour 5 l of water (equivalent to 16% in weight) into the container, then slowly add CALIBRO NHL while mixing for 3-4 until a creamy texture is obtained.

If mixing with a concrete or planetary mixer, pour 5 L of water into the drum, then slowly add CALIBRO NHL while mixing for at least 7 minutes until a creamy texture is obtained.

**Manual application**

Apply the layer of plaster, levelling it with a simple straight edge or adjusters to maintain the thickness without crushing the product.

**Sprayed application**

It is possible to apply it with a plastering machine with a smoothing wand after mixing the product separately.

Therefore pour the plaster, which has been previously mixed in a concrete or planetary mixer, into the hopper of the plastering machine.

Spray a layer of plaster, paying attention to optimise the amount of air used according to the flow of mortar allowed by the plastering machine.

Spray application is also possible by using a suitable continuous mixing plastering machine.

In this case, follow the instructions provided by the manufacturer of the plastering machine, which must guarantee a sufficient amount of air incorporated into the mixture with the use of relative turbo systems, if necessary.

In any case ensure that the machine is suitable for use either through preliminary testing or by consulting the plastering machine manufacturer and/or our Volteco Technical Service.

**Surface finish**

The finishing is carried out once the curing process is complete, after at least 14 days, using X-LIME and PAINT AIR paint (see relevant technical data sheets) or paint that does not significantly alter the breathability characteristics of CALIBRO NHL.



References available at [www.volteco.com](http://www.volteco.com)

**CONSUMPTION AND YIELD**

CALIBRO NHL anchoring layer:  $5 \div 5.5 \text{ kg/m}^2$  per 0.5 cm in thickness, depending on the roughness of the surface.

CALIBRO NHL:  $10.5 \div 11 \text{ kg/m}^2$  per cm in thickness, depending on the roughness of the surface.

**PACKAGING AND STORAGE**

CALIBRO NHL is packed in 20 kg bags.

The products must be stored in a dry place protected from sun and humidity.

**WARNINGS - IMPORTANT NOTES**

Do not add water to extend the pot life.

If the product is used with anti-condensation function, provide suitable ventilation in the rooms where the system is applied.



The preparation and installation data refer to normal environmental conditions (temperature +20 °C; relative humidity 60%).

## PHYSICAL AND TECHNICAL SPECIFICATIONS


Specification	Values
Appearance	hazelnut powder
Mixture consistency	thixotropic
Application temperature	from +5 °C to +30 °C
Workability time at +20 °C	30'
Maximum aggregate size	1.2 mm
Thermal conductivity (UNI EN 1745)	0.4 W/mK (tabulated value)
Reaction to fire (UNI EN 13501-1)	Class A1
Mixture ratio	100 parts powder 25 parts liquid

Parameters subject to company Quality Control	Test method	Values
Apparent bulk density	UNI EN 1015-10	1.1-1.2 kg/l
Mixture bulk density	UNI EN 1015-6	1.25÷1.35 kg/l
Air content	UNI EN 1015-7	> 28%
Water vapour permeability coefficient $\mu$	UNI EN 1015-19	< 15
Compressive strength after 28 days	UNI EN 1015-11	< 5 N/mm <sup>2</sup> (category CS II)
Bond strength	UNI EN 1015-12	> 0.1 N/mm <sup>2</sup> (FP A-type breaking)
Capillary water absorption	UNI EN 1015-18	> 0.3 kg*m <sup>-2</sup> *h <sup>-0.5</sup>

Specification	Certification
Environmental Product Declaration 0298 (EPD)	EPDItaly 0298 (30/05/2027) www.epditaly.it

## SAFETY

Refer to the related Safety Data Sheet.

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<b>13</b> <b>DOP 0014</b> <b>EN 998-1:2004</b> <b>CALIBRO NHL</b> Mortar for outdoor and indoor plaster - mortar for type R restoration	
Reaction to fire: Class A1 Apparent bulk density: 1.1÷1.2 kg/l Compressive strength: Class CSII Adhesion: $\geq 0.1$ N/mm <sup>2</sup> (FP A-type breaking) Capillary absorption: $\geq 0.3$ kg/m <sup>2</sup> (after 24h) Vapour permeability coefficient: $\leq 15 \mu$ Thermal conductivity (tabulated value): 0.4 W/mK Air content: > 28% Mixture bulk density: 1.25÷1.35 kg/l Hazardous substances: See SDS	

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## LEGAL NOTES

Note for buyer/installer:





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