

PRESENTATION

DESCRIPTION

NHL3.5 is a natural hydraulic lime binder, compliant with EN 459-1. It is obtained by calcining marl limestones rich in silicates at low temperatures (around 1100 °C), following traditional methods.

AREAS OF APPLICATION

Due to its low content of water-soluble salts and exceptional porosity, **NHL3.5** is particularly suitable for the preparation of products intended for the restoration of historical and architectural buildings, as well as for ecological construction. This binder is ideal for the production of masonry mortars, renders, and natural or pigmented finishes.

TECHNICAL SPECIFICATIONS

IDENTIFICATION DATA	
Physical state	powder solid
Bulk density	approx. 750-800 kg/m ³
Free lime	27 %
SO ₃ content	< 0,2 %
Packaging	25 kg bag
APPLICATION DATA	
Setting time	initial 5-6 hours, final 10-12 hours
FINAL CHARACTERISTICS	
Mechanical strength at 7 days	≥ 1.0 N/mm ²
Mechanical strength at 28 days	≥ 3.5 N/mm ²
Mechanical strength at 56 days	≥ 5.0 N/mm ²
Fineness (residue at 0.2 mm)	< 0,2 %
Fineness (residue at 0.09 mm)	< 1 %
Stability	< 1 mm
CHEMICAL ANALYSIS: X-ray fluorescence analysis (XRF)	
CaO	75,87 %
SiO ₂	15,04 %
Al ₂ O ₃	3,37 %
Fe ₂ O ₃	2,98 %
MgO	1,17 %
K ₂ O	0,89 %
SO ₃	0,13 %

APPLICATION

SUBSTRATE AND PREPARATION

Mortars made with **NHL3.5** can be applied to traditional masonry (brick, natural or mixed stone) provided they are porous. For concrete surfaces or natural insulating materials, a bonding coat is necessary to improve adhesion.

MIX PREPARATION

NHL3.5 must be mixed with washed sand (e.g., Rhine or Moselle river sand), following a suitable particle size distribution depending on the intended use. Mix only with clean water, at a ratio of 1 part lime to 3 parts sand by weight (approx. 400-450 kg of lime per m³ of aggregates). It is recommended to let the mix rest for a few minutes before application.

Mixes should be prepared on-site and application tests performed, as the variety of aggregates available on the market does not allow for standardized dosages. To preserve its purity, no other hydraulic binders or cement should be added to **NHL3.5**.

Refer to the legal information at the end of the document

APPLICATION METHOD

Renders made with NHL3.5 natural lime are highly porous and should be finished with materials of similar permeability, such as MONTE 06 and/or MONTE 12.

On-site preparation of bedding mortars, renders, leveling coats, and decorative finishes.

Application temperatures: between +5 °C and +30 °C (substrate and ambient).

MISCELLANEOUS

WARNINGS

Our products are resistant to frost, heat and humidity. Always store them in a dry, frost-free place, without contact with the ground, in their original, closed packaging. Never leave products in direct sunlight.

This product is intended for professional use only. Properly protect areas not intended to be treated with the product. The operator must be equipped according to current safety regulations. No liability will be accepted for any damage resulting from improper use of the product.

ADVICE

Strictly follow the application protocols according to the intended use of the product. Never use products other than those specified in this technical data sheet to avoid any risk of incompatibility or failure.

For the same project and product type, always use materials with the same batch number. Make sure to use only original, unopened bags.

Always carry out preliminary tests. In case of doubt, please contact us.

ENVIRONMENT

Dispose of in a specialized waste collection center.

SECURITY

The safety data sheet is available on request or at www.bealinternational.com

LEGAL INFORMATION

The technical instructions and in particular the recommendations about how to apply and use the products are provided in good faith and are based on the current knowledge and experience acquired by BEAL about its products when they are properly stored, handled and applied under normal conditions. In practice, variations in the various materials, substrates and specific conditions encountered on site are such that adhering to this information or to any written recommendation or advice given does not deliver any guarantee of marketable quality other than the statutory guarantee against hidden defects. We accept no liability should the customer fail to adhere to our instructions or recommendations when applying a product. None of the data and information provided relating to the use and application of our product releases customers from the requirement to conduct their own checks and tests. All orders are accepted subject to our current general terms and conditions of business. It is essential that users read the most recent version of the instructions for the product in question, which will be sent to them on request.

The manufacturer reserves the right to modify the above information over time, while maintaining the characteristics of the product.

Refer to the legal information at the end of the document

Page n°2 - This technical document contains 2 page(s) - Edition AG 2025-07-29 - This edition cancels and replaces all previous editions.

BEAL INTERNATIONAL S.A.

Z.I. NOVILLE-LES-BOIS • RUE DU TRONQUOY 8 • 5380 FERNELMONT • BELGIUM
T. +32 (0) 81 83 57 57 • F. + 32 (0)81 83 57 67 • RPM NAMUR • TVA BE 0414 592 153
INFO@BEAL.BE • WWW.BEAL.BE

