

Baumit NHL Thermo

Heat insulating, moisture-regulating lightweight render with NHL lime



- **Cement-free insulating render**
- **Highly heat-insulating**
- **For historical buildings**

Product Overview

Cement-free, highly diffusion-open mineral insulating render for manual and machine application for internal and external use. Thermal insulation render mortar T 1 and CS I according to DIN EN 998-1.

Composition

Aggregate, natural hydraulic building lime, mineral lightweight aggregate and additives for better processing.

Properties

- Heat-insulating basecoat with mineral lightweight aggregates.
- Non-combustible.
- Machine applicable, mineral insulating render with increased flexibility.
- Temperature and moisture regulating with excellent water vapour permeability.
- Suitable for machine and hand application.

Application

- Thermally insulating render mortar for use as a base coat on mineral substrates for internal and external use.
- Due to its cement-free formulation, it is ideally suited for use in listed or historic buildings.
- For single- or multi-layer application in old and new buildings, timber-framed buildings, masonry as well as concrete, when using a suitable bonding agent.
- For levelling uneven substrates.

Technical Data

Reaction to fire:	A1
Compression strength:	> 0.5 N/mm ²
Strength category:	CS I according to DIN EN 998-1
Adhesive tensile strength:	≥ 0.08 N/mm ²
μ-value:	≤ 8
Water absorption:	Wc 0 according to DIN EN 998-1
Thermal conductivity:	≤ 0.075 W/mK

	NHL Thermo 14.5kg (40L)
yield	app. 2.5 m ² /bag at a layer thickness of 15mm
yield	app. 1.3 m ² /bag at a layer thickness of 30mm
Grain	0.2 mm
Min. application thickness	15 mm
Max. application thickness	30 mm In one pass
Consumption	app. 0.37 kg/m ² /mm
Water requirement	app. 16 l/bag

Delivery Format

14.5 kg bag, 1 pallet = 40 bags = 580 kg

Storage

Can be stored on pallets well wrapped and protected for up to 6 months. From date of manufacture.

Quality Assurance

Internal quality assurance is provided by the manufacturer's plant.

Classification according to the Chemicals Act Gather the detailed classification from the Safety Data Sheet (according article 31 and annex II of the regulation No. 1907/2006 of the European Parliament and –Council from 18.12.2006) at www.baumit.com or request the Safety Data Sheet at the respective production plant.

Substrate The substrate must be sound, load-bearing and free from dirt and dust. Directly render normally absorbent, non-slip substrates. Apply a rough, splatter spray coat, e.g. SanovaPre, VorspritzMörtel VS 60, etc., to the entire surface of non-uniformly absorbent substrates (mixed masonry, porous bricks of higher strength, etc.).
Weakly absorbent substrates with little grip (smooth concrete surfaces) with an adhesive filler, e.g. made of multiContact MC 55 W. Spray two coats on highly absorbent substrates (highly porous low-strength bricks, aerated concrete).
For non-load-bearing substrates, use a suitable render base. Fix according to manufacturer's instructions. Installation slots, masonry joints, holes, etc. must be sealed with suitable material (e.g. with MC55 W) in a separate workstep.

Substrate pre-treatment The substrate must be clean, dry, frost-proof, dust-free, not water repellent, free of efflorescence and free of loose part. Peeling paint, lime wash, grease stains (from shuttering), other contaminants and film forming layers must be removed. Any cracks are to be scraped open with a pointed tool to form a "V" groove.
High absorption substrates must be pretreated with Baumit MultiPrimer.
Low suction substrates must be pretreated with Baumit SuperPrimer.
Friable basecoats are to be pretreated with a stabiliser such as Baumit SanovaPrimer.
Algae and mould growth must be removed with Baumit FungoFluid.

Processing NHL Thermo can be applied by hand with suitable tools:
Always mix the entire contents of the bag in a free-fall mixer with 15 - 16 l of water. If necessary, make plastering jigs from NHL Thermo and allow to set. Apply NHL Thermo with the trowel and remove with the wetted wooden lath, do not smooth or rub.
It is more efficient to use all commercially available rendering and mixing machines with the usual equipment.
A special insulating render mixing spiral must be used. A dry conveying shaft for insulating renders as well as a post-mixer must not be used.
We recommend consulting our service technicians when processing the insulating render with the rendering machine for the first time.
When mixing in the rendering machine, additional consumption must be expected, which varies depending on the machine type. We therefore recommend appropriate preliminary tests.
Minimum application thickness of 10 mm for weakly and normally absorbent substrates, 30 mm for highly absorbent substrates with subsequent rewetting or higher render thickness up to 50 mm. Application thicknesses up to 50 mm are possible in one layer. For application thicknesses greater than 50 mm and under unfavourable conditions, work in several layers; roughen the baserender layers well.
After a standing time of at least 5 days, the following base coat layer can be applied. The maximum total render thickness is 80mm. Before applying the finishing render, a full-surface reinforcing render layer, e.g. of multiContact MC 55 W or RK70 N with StarTex reinforcing mesh embedded in the top third layer, layer thickness approx. 5 - 10 mm, should be applied.
Before applying the finishing render, the insulating render must have set well and be largely dry. dried out (allow 1 day per 10 mm of render thickness, but at least 1 week). This is especially important at low temperatures and thus delayed setting! Keep fresh render surfaces damp for at least 2 days.

Notes and General Information Do not apply in direct sunlight, rain or wind and protect the façade (e.g. scaffold net) until completely hardened. High humidity and low temperatures can significantly extend the setting time.
When using heaters, especially gas heaters, ensure good cross ventilation (carbonation). Direct heating of the render is not permitted. We recommend the use of Baumit Topcoats or Paints as finishing Coat.
The maximum render thickness of a thin-layer finishing render is 5 mm. For special constructions with renders from the historical series please consult the Baumit Technical team.
When using render profiles, use suitable, rust-free profiles and apply VarioSpeed mortar (gypsum free).
Clean tools immediately after use. Protect vulnerable areas (glass, ceramics, metal, etc.). Protect from strong sunlight.
Do not use as a finishing render or in the plinth area.
NHL Thermo is not suitable for laying tiles and slabs due to its strength of less than 2.0 N/mm².
Final coatings for exterior use:
Raised on Baumit NHL Thermo:Fascina
SEP Rendered on Baumit NHL Thermo with intermediate layer of multiContact MC 55 W:
Mineral Baumit finishing renders such as, ScheibenPutz SEP, or pasty finishing renders such as SilikatTop, StarTop, SilikonTop, CreativTop and CrystalTop.

Written and oral application technology recommendations provided by us to assist the seller/processor are based on our experience and reflect the current state of the art in science and practical application know-how. However, it is understood that these recommendations are non-binding. They do not create any legal relationship or any ancillary obligations in connection with the sale contract. They do not release the buyer from its obligation to verify the suitability to our products for the intended purpose or use by itself.

INTERNAL FINISH over NHL THERMO
5mm Baumit MC55 or RK70 Base Coat with MESH Inserted
2-3mm Baumit RK70 or KlimaGlatt Top Coat

EXTERNAL FINISH over NHL THERMO
6-9mm Baumit MC55 Base Coat with MESH Inserted
Baumit Premium Primer
Baumit SilikonTop or SilikatTop Top Coat