

Baumit NHL Thermo

Heat insulating, moisture-regulating
lightweight render with NHL lime



- **Pure mineral - non-combustible A1**
- **Dry bulk density: < 400 kg/m³**
- **Rated value λ : 0.08 W/(m-K)**

Product Overview

Cement-free, highly diffusion-open mineral insulating render for manual and mechanical 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 interior and exterior 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

Mortar class:	Thermal insulation render mortar T 1 according to DIN EN 998-1, P I according to DIN 18550
Fire behaviour:	A1, non-combustible
Strength class:	CS I according to DIN EN 998-1
Compressive strength:	> 0.5 N/mm ²
Adhesive tensile strength:	≥ 0.08 N/mm ² according to EN 1015-12
Water absorption:	Wc 0 according to DIN EN 998-1
Thermal conductivity λ :	≤ 0.075 W/(m-K)
Water vapour adsorption class:	≤ 15, approx. 8
Render mortar group:	T1 according to DIN EN 998-1

	NHL Thermo 40L
Grain size	0 - 2mm
Render thickness	max. 30 mm in one pass
Application thickness	Minimum application thickness: inside: 30 mm, outside: 30 mm
Consumption	approx. 0.37 kg/m ² /mm
Yield	approx. 40 l /bag or approx. 2,740 l/t = approx. 68 m ² with 40 mm application thickness

The consumption figures given are for orientation purposes. For practical reasons, an additional consumption of approx. 10 % must be taken into account. The consumption figures depend on the roughness and absorbency of the substrate as well as the application technique.

Delivery form

Paper bags, bag content approx. 40 l /bag (40 bags per pallet = 1,600 l)

Storage

Dry and protected, storage time should not exceed 9 months

Quality Assurance	Constant monitoring and control of quality and strict incoming inspection of all raw materials. The company has a TÜV-approved and certified quality management system according to the worldwide valid standard DIN EN ISO 9001 as well as a TÜV-tested and certified environmental management system according to the worldwide valid standard DIN EN ISO 14001.
Classification according to Chemicals Act	See safety data sheet
Substrate	<p>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.).</p> <p>Weakly absorbent substrates with little grip (smooth concrete surfaces, KS masonry) with an adhesive filler, e.g. made of multiContact MC 55 W.</p> <p>Spray two coats on highly absorbent substrates (highly porous low-strength bricks, aerated concrete).</p> <p>For non-load-bearing substrates, use a suitable render base. Fix according to manufacturer's instructions.</p> <p>Installation slots, masonry joints, holes, etc. must be sealed with suitable material (e.g. with multiFill LTM 81) in a separate work step.</p>
Processing	<p>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.</p> <p>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.</p> <p>Minimum application thickness of 30 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 base render 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 80 mm.</p> <p>Before applying the finishing render, a full-surface reinforcing render layer, e.g. of multiContact MC 55 W and StarTex reinforcing mesh, layer thickness approx. 4 - 5 mm, should be applied.</p> <p>Before applying the intermediate filler or the finishing render, the insulating render must have set well and be largely dry. dried out (allow 1 day per 1 cm of plaster 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.</p>
General Notes	<p>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.</p> <p>When using heaters, especially gas heaters, ensure good cross ventilation (carbonation). Direct heating of the render is not permitted.</p> <p>We recommend the use of Baunit Edelputze as finishing render. 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 Baunit Technical team.</p> <p>When using render profiles, use suitable, rust-free profiles and apply VarioSpeed mortar (gypsum free).</p> <p>Clean tools immediately after use. Protect vulnerable areas (glass, ceramics, metal, etc.). Protect from strong sunlight.</p> <p>Do not use as a finishing render or in the plinth area.</p> <p>NHL Thermo is not suitable for laying tiles and slabs due to its strength of less than 2.0 N/mm².</p> <p>Final coatings for exterior use:</p> <p>Raised on Baunit NHL Thermo: Fascina SEP</p> <p>Rendered on Baunit NHL Thermo with intermediate layer of multiContact MC 55 W: Mineral Baunit finishing renders such as Edelweiß Structo EST, ScheibenPutz SEP, Münchner RauPutz MRP or pasty finishing renders such as SilikatTop, StarTop, SilikonTop and CreativTop.</p>

Roughly troweled on Baunit NHL Thermo:
Baunit KratzPutz KRP

Final coatings for interior use:

Raised on Baunit NHL Thermo with an intermediate layer of multiContact MC 55 W or multiFine RK 70 N:
Mineral Baunit finishing renders such as Klima EST or KlimaSpeed, Klima RK 39, Klima RK 38, Klima KP 36 W, Klima Glätt W, KlimaFilz 05, multiFine RK 70 N, Trass KP 01.
Baunit finishing renders: KlimaFinish or KlimaDekor

Follow the processing guidelines/instructions of the relevant final coatings product to be used.

Do not apply below + 5 °C and above + 30 °C material, substrate and air temperature and allow to dry. Observe the "Guidelines for the plastering of masonry and concrete", DIN EN 998-1, DIN EN 13914, DIN 18550 and DIN 18350 (VOB, Part C). must be observed.

If you require further information on this material or its processing, our field service consultants will be happy to advise you in detail and on a project-specific basis.

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.