

KEIM NHL-Kalkputz-Fein (NHL Lime render/mortar - fine)



1. Product description

KEIM NHL-Kalkputz-Fein is a dry bagged mortar manufactured to DIN EN 998-1, based on sand, lime (white lime, highly hydraulic natural lime) and hydraulic additives, as well as additives for a better processing and adherence. The strength complies with mortar category CS II or PII as per DIN V 18550.

2. Field of application

KEIM NHL-Kalkputz-Fein is a lime-bound fine render for manual and machine application and is used as a topcoat render for interior, exterior and damp areas. It can be used on any conventional undercoat render, but not on gypsum-containing, plasto-elastic or saponifiable substrates. KEIM NHL-Kalkputz-Fein acts also as a bonding bridge for subsequently applied lime renders.

KEIM NHL-Kalkputz-Fein is particularly suitable for historic renovation and remediation work and for low environmental impact residential applications.

3. Product properties

- Grain size: 0 - 0.6 mm
- Low environmental impact and excellent building physics
- Good machine application
- Easy to apply
- Wide variety of textures
- Water-repellent
- Good adherence properties
- Partial or full cover embedding of fabric (e.g. KEIM Glass Fiber Mesh)

Material characteristics to DIN EN 998-1

- Compressive strength: 1.5-5.0 N/mm², CS II

- Flammability:: A1
- Water vapor permeability μ : approx. 10
- Water absorption: W 2
- Tensile bond strength: ≥ 0.08 N/mm²
(fracture pattern A, B or C)
- Thermal conductivity:
 - _{10, dry} : ≤ 0.83 W/(mK) for P = 50%*
 - ≤ 0.93 W/(mK) for P = 90%*
 - (*tabular values to EN 1745)

4. Application instructions

Substrate preparation

The substrate must be solid, sound and free from dust, oils and dirt. Cracks need a wedge-shaped enlargement. Highly absorbent substrates may need to be pre-wetted. The surface must be properly set and hardened. Particularly smooth surfaces need to be roughened well beforehand. Soft, sanding undercoat renders must be solidified by a pre-treatment with KEIM Fixativ (diluted with water 1:1 or 1:2).

Application

KEIM NHL-Kalkputz-Fein can be processed by hand; small quantities can be mixed with a hand mixer. However, processing with conventional commercial rendering and mixing machines makes more sense. Mix sufficiently, but do not over mix as a severe drop in strength will be observed.

Water usage: approx. 280 - 320 ml (9.5 - 10.8 fl oz)/kg (corresponding to 7 - 8 l (1.8 - 2.1 gal) /sack). When applied as a topcoat render, minimum thickness is 2 mm and maximum thickness 5 mm.

KEIM NHL-Kalkputz-Fein is applied with a steel trowel and in the first stage smoothed to a good opaque finish. Once solidification has begun, the final texture can be applied, for example with a



steel trowel, felt or sponge float, by free modeling or spraying - it can be even applied like a filling coat by brush.

For embedding fabric apply KEIM NHL-Kalkputz-Fein with a thickness of 3 - 4 mm, embed KEIM-Glass Fiber Mesh, overlap by 10 cm where pieces meet and cover over wet-in-wet with another layer of KEIM NHL-Kalkputz-Fein of approx 2 mm. Total thickness of the reinforcement should be approx 5 - 6 mm.

To act as a bonding bridge apply KEIM NHL-Kalkputz-Fein to a thickness of 3-5 mm, roughen thoroughly, leave to harden for 1-2 days or overcoat wet-on-wet with a thin layer of KEIM NHL-Kalkputz-Fein. KEIM NHL-Kalkputz-Fein must be applied before it begins to solidify. Previously set material must not be remixed. In basement areas, only use as a topcoat render if in-situ water is avoided by a coarse gravel drainage layer.

Note

In case of a thin layer application or excessively fast drying process, the finished render surface must be misted with water one or more times. Heat interior spaces carefully to avoid too fast of a drying process which can result in cracks and low strength.

Application conditions

Do not apply and let dry below +5°C (41°F) and above +30°C (86°F) wall and air temperature. Do not apply in direct sun, wind or rain, and protect surfaces during and after application until the material is completely hardened.

Drying times

A setting time of at least one day per mm of render thickness is required before over coating, or a

minimum of 10 more days for layers 10 mm or less. High air humidity and low temperatures can extend the setting time. In case of a thin-layer application or in a fast drying condition, the finished render surface must be misted with water one or more times during the drying process.

Finishing

KEIM NHL-Kalkputz-Fein can be coated with any thin-layer KEIM finishing render and any KEIM paint/coating system - it can also be tiled. For a subsequent coating with KEIM Purkristalat, a layer thickness of 5 mm is required.

Consumption

Material consumption: approx. 1.2 kg per m² (10.8 sq ft) and per mm thickness.

Yield: approx. 21 l (5.5 gal) /sack =
approx. 840 l (222 gal) /ton=1,000 kg

Cleaning of tools

Immediately after use clean with water.

5. Packaging

25 kg sack (42 sacks per pallet = 1,050 kg)

6. Storage

When stored in dry and protected conditions, storage should not exceed 12 months.

7. Hazardous substances ordinance class

Xi Irritant

R 38: Irritating to the skin.

R 41: Risk of serious damage to the eyes.



- S 2: Keep out of reach of children.
- S 22: Do not inhale dust.
- S 24/25: Avoid contact with skin and eyes.
- S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 37/39: Wear suitable gloves and eye/face protection.
- S 46: If swallowed, seek medical advice immediately and show this container or label.

8. Transport hazard class

n/a

9. Disposal

EC Waste Code No. 10 13 99

Any residues must be emptied out of containers before recycling.

10. Safety instructions

Lime has an alkaline action in combination with water. Cover surfaces which are not to be treated. Any splashes on surrounding areas must be rinsed off immediately with plenty of water. Protect the eyes and skin from splashes. Keep out of reach of children.

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