

KEIM NHL-Kalkputz-Grob (NHL Lime render/mortar - coarse)



1. Product description

KEIM NHL-Kalkputz-Grob 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-Grob is a multipurpose lime-bound exterior and interior render/mortar for manual and machine application. It can be used as an undercoat and topcoat render or masonry mortar for all interior, exterior and damp areas from the cellar to the roof.

KEIM NHL-Kalkputz-Grob is suitable for rendering all kinds of masonry and concrete etc., where a historic lime mortar is desired for filling joints. As topcoat render KEIM NHL-Kalkputz-Grob can be used on any conventional undercoat render of mortar category CS II - IV, but not on gypsum-containing, plasto-elastic or saponifiable substrates. It is particularly recommended for use in low environmental impact applications or for remediating historic structures.

3. Product properties

- Grain size: 0 - 3.0 mm
- Low environmental impact and excellent building physics
- Good machine application
- Easy to apply
- Wide variety of textures
- Water-repellent

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:

$$\lambda_{10, dry} : \begin{aligned} &\leq 0.83 \text{ W/(mK) for } P = 50\%* \\ &\leq 0.93 \text{ W/(mK) for } P = 90\%* \\ &(* \text{ tabular values to EN 1745}) \end{aligned}$$

4. Application instructions

Substrate preparation

The substrate must be solid, sound and free from dust, oil and dirt. Undercoat renders must be properly set. Particularly smooth surfaces must be pre-treated with a bridging coat, e.g. KEIM NHL-Kalkputz-Fein or KEIM Universalputz. Highly absorbing substrates must be pre-wetted. When rendering masonry or differing render substrate, a multilayer application of KEIM NHL-Kalkputz-Grob is recommended to reduce the risk of cracking. 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-Grob 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.

Water usage: approx. 240–270 ml (8.1–9.1 fl oz) per kg (corresponding to 8.5–9.5 l (2.2 - 2.5 gal) per sack).

Minimum thickness is 10 mm when applied as an undercoat and 5 mm as a topcoat render. With



thicknesses of more than 20 mm and with other unfavourable application conditions, apply multiple layers; sufficient setting time should be allowed for the undercoat render (1 day per mm of render thickness) before the final layer is applied (roughen previous layers before applying top layers).

This is especially important at low temperatures, given the consequent delays in setting! On a highly absorbent substrate, the undercoat render should be applied in two layers wet-on-wet.

Note

Masonry with a bulk density of below 700 kg/m³ (1.3 cu yd) and/or a thermal conductivity of less than 0.13 W/mK should be rendered with lightweight (LW) renders to DIN EN 998-1 (formerly DIN V 18550). Use special basement renders in basement areas.

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 time

A setting time of at least one day per mm 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-Grob 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. 1.3 kg per m² (10.8 sq ft) and per mm thickness.

Yield: approx. 26 l (6.8 gal) /sack =
approx. 740 l (195 gal) /ton=1,000 kg

Cleaning of tools

Immediately after use clean with water.

5. Packaging

35 kg sack (36 sacks per pallet = 1,260 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.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release those purchasing and applying our products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. This edition supersedes all earlier editions.

