

Coarse Lime Basecoat Render with Hair

Item No. 21.200

gräfix 61 hair

- Traditional lime render mortar
- Pure and cement-free
- Suitable for clay construction



Gräfix renders are cement-free, breathable lime mortars for conserving and restoring historical buildings. They are ideal for ClayTec clay substrates. Coarse lime basecoat render with hair is coarse-grained and contains badger hair required.

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Field of application Breathable lime mortar for manual exterior plastering on clay substrates during timber-frame restoration work. Without synthetic resins, cement or cementitious additives.

Composition Lime, crushed limestone sand 0-4mm, additives to improve workability (surfactants, cellulose and methyl cellulose total < 0.5%).

Material parameters Bulk density approx. 1,450kg/m³, strength corresponds to CS I DIN EN 998-1

Supply form, coverage In moisture-proof 25kg bags (yields 19 litres of plaster mortar, approx. 1.3kg/m² per mm plaster thickness), 40 bags/pal.

Storage Can be stored dry on pallets or wooden grid for at least 6 months.

Mortar preparation With the addition of approx. 6,5l per 25kg bag with commonly available rotary drums, turbomixers and pug mill mixers, in smaller amounts also with a motor agitator.

Plaster base Straw clay has to be roughened up (perforated) carefully. Level any masonry joints; to improve plaster adhesion later on, scrape them out to create a sharp-edged recess of max. 3mm. The clay infills must be absolutely dry and free from dust (brush over when dry).

Plaster structure The plaster must always be applied in several layers. The thickness of the coarse lime basecoat render with hair must not be less than 8mm or more than 12 mm for each layer. (Recesses > 3mm should be considered the plaster base when determining the plaster thickness!). If the material is used in exceptional cases for basecoat plasters with a thickness of > 12mm or on continuous surfaces (not timber frames), apply two layer of basecoat plaster to minimise shrinkage and settlement cracks. Three layers of plaster are possible depending on the desired surface texture of the topcoat:

Rough (rustic): 6l Coarse Lime Basecoat Render with HJair + 6l Lime Basecoat Render (topcoat)

Fine: 6l Coarse Lime Basecoat Render with Hair + 6l Fine Lime Thin-Coat Render

Very fine: 6l Coarse Lime Basecoat Render with Hair + 6l Fine Lime Thin-Coat Render + 66 k Lime Render Smooth

Plaster application The plaster base must be pre-wetted carefully, several times if necessary, immediately before applying the plaster section by section (spray mist). There may be no water accumulation in the pores. The plaster is applied by hand. The first layer is applied with a wooden board (approx. 15 x 40 cm), pressed firmly onto the plaster base and worked in with zig-zag movements. Recesses and joint returns must be completely filled and compacted. It means the plaster surface is so rough it does not have to be combed. Metal smoothing tools are unsuitable for layers of basecoat plaster because they leave a compacted and smooth surface. Alternatively, the mortar can be applied vigorously with a large triangular bricklayer's trowel. Leave the first layer of plaster to dry fully (at least one day/mm of basecoat plaster). Cracks may appear. A second layer of plaster can be applied with a wooden or PU board. Work from the edge of the infill section towards its centre and not vice versa when applying the plaster. If 6l coarse lime basecoat render with hair is used as a topcoat, we recommend a trowel incision at the beam connection. A cut of around 2-3 mm in depth is sufficient with. The beam connection should not be executed as a bevel.

Working temperature 5-25 °C substrate temperature

Working time 3-4 hours depending on the temperature, plaster thickness and absorption properties of the substrate.

Subsequent processing In hot or windy weather, the plaster has to be kept moist in the first few days, e.g. with a garden sprinkler (fine mist) to stop it drying out too fast. Apply a breathable paint to the topcoat as protection against frost and weathering. Lime paint (Item No. 21.525) is suitable here or silicate facade paint if the surfaces are exposed to heavy weathering.

Notes Coarse lime basecoat render with hair contains animal hair, as was common for historical lime plasters. These are mainly cattle ear hairs, as used by the Franconian brush industry to make high-quality real hair brushes. They are checked according to the brush manufacturer's specifications and have been heated to 140° C for at least 2 hours. If required, we offer a vegan product in the form of gräfix 61 lime base plaster (Item No. 21.300). The plaster sets slowly and insufficiently if the temperature is too low and the humidity too high. Windows, wooden beams or other building components with visible timber have to be protected against contamination by lime mortar (masking) because these are very hard to remove later on. If plaster laths have to be used, please refer to the ClayTec 'Timber-frame construction worksheet'.

In all cases, the suitability of the entire layer structure must be tested by means of a sample application of sufficient area.

Claims for compensation that do not result from factory mixing errors are excluded. Subject to change and errors excepted. As of 2026/5.