

i.pro RENOBAT

Lime and hemp slab

A slab is a flooring that blade the ground and gives it strengths. A slab can be covered by a screed if necessary. Blends of hemp and limes in slab improve insulation which is as much interesting in new build as in restoration.

Mix design

Mixer:

- Introduce the water
- Introduce the lime in the mixer and mix to obtain the homogeneity of the blend
- Introduce the hemp in the mixer
- Mix 3 to 5 minutes to obtain a perfect homogeneity without any lump or pellet. When the lime-hemp concrete is ready, get immediately the blend out of the mixer

Mixer with vertical axis:

- Introduce the decompacted hemp and the lime then mix
- Add the water and mix the blend to obtain the final consistency, 3 to 5 minutes

Preparation of the substrate

On earth platform:

- To avoid the capillary rises, realize a peripheral drainage
- Realize a drainage bed (20/40) of a thickness minimum of 15 to 20 cm (connect the drainage bed with the drainage by a pipe which will go out under the foundation and will be connected with the peripheral ditch). If the ground is too argillous, moving or filled with humidity, realize beforehand a soil treatment with a natural hydraulic lime (as a natural geotextile).
- Never add any waterproof film
- Unwind the technical girdles
- Make a wall pocket against walls with a bracket or a lath of 1/2cm, to facilitate the ventilation after the installation of the screed of hemp and lime.
- Realize a grout of 3 cm of thickness to cover the heating pipes if necessary

Upstairs:

- The wooden floor (or possibly concrete) will be cleaned and dusted
- Pour directly the hemp on the floor and clean the ledger strips in the concrete
- Hemp concretes are not compatible with the floating floors, unless waiting for the complete evacuation of the humidity

Concrete application

- The hemp and lime is applied by successive layers
- Its total thickness will be of 12cm on earth platform and from 3 to 8 cm in grading slabs (ledgers strips included)
- Spread with flat rake and ram the surface (do not compress)
- Ventilate but not warm
- Wait some hours before walking on the screed and approximately 1 month before applying the finish
- Do not apply a floating floor if the screed did not reject all its humidity
- Never apply on a glazed earthenware tiling, which would block the breath of the support

Indicated quantities

i.pro RENOBAT	2 bags of 35 kg	1 bale of 200L of hemp	Around 80 Litres of water
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Indicated consumption (for 1 m²)

Slabs of 10 cm of thickness

i.pro RENOBAT	40 to 42 kg	115 to 120 L of hemp
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Why use a lime concrete?

- Lime is a natural and ecological product
- Its high PH destroys bacteria and helps to clean areas
- Its high porosity facilitates the regulation of hygrometry (moisture content)
- Lime allows to reduce considerably the water upwelling in the walls and the floors
- In restoration, the lime concrete will behave similarly as building mortars and lime plasters also
- The flexibility of the lime concrete and its regular strength over time enable them to adapt to the movements of the supports

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