

Product Data Sheet

Hemp Lime Binder

Hemp Lime Binder is a low density, hydraulic lime based binder used in the manufacture of hempcrete (hemp concrete). Hempcrete is a bio composite building material which provides enhanced thermal properties to walls and roofs using sustainable materials.

Typically Hemp Lime Binder is blended with hemp shiv and water to create hempcrete as a semi-dry mix. The hempcrete is then normally cast around a steel or timber frame to create a solid, non-load bearing wall. The hydraulic lime used in manufacturing K Lime Hemp Binder is manufactured to BS 459-1; K Lime Hemp Binder is ISO 9001 & 14001 approved.

- Can be cast or sprayed
- Provides some racking strength for the frame
- Robust, highly breathable
- Sustainable, low environmental impact
- Provides both thermal resistance heat storage

MIX RATIOS

The density and strength of the Hempcrete can vary according to the mix ratio used.

Typical values:

Mix Ratios by weight

Hemp Binder	Hemp Shiv	Water	Dry Density	Compressive Strength
(Kg)	(Kg)	(Kg)	Kg/m ³	N/mm ²
1.0	0.45	0.9	530	0.85
1.0	0.67	0.9	340	0.26

Mix Ratios by volume

Hemp Binder	Hemp Shiv	Water	Dry Density	Compressive Strength
(L)	(L)	(L)	Kg/m ³	N/mm ²
1.0	2.7	0.74	530	0.85
1.0	3.95	0.73	340	0.26

The quantity of water to be added may vary depending on the water content of the hemp shiv.

MORTAR CONSUMPTION

Typically 1 cubic metre would require approximately 200 kg of binder, 90 kg of hemp shiv and 180 litres (Kg) of water.

MIXING AND INSTALLATION

Add hemp fibre first followed by the Hemp Binder mix for 30 seconds, then add the water and mix for 5 minutes to give a homogeneous mix.

The consistency should be a stiff, almost semi-dry paste

Temporary shuttering (maximum 600mm in one lift) should be installed to create the mould or formwork. The product placed into mould or formwork and lightly tamped into place. Shuttering should be left overnight and can be removed the following day.

PACKAGING AND STORAGE

The product is packed in 20kg bags.

The shelf life is 12 months if stored in dry off the ground in dry conditions, protected from frost and sunlight, in original unopened packaging.

TECHNICAL ADVICE

A technical advisory service is available on request.

In line with our policy of continuous product development, we reserve the right to change technical data without notice.

