

## Tradical<sup>®</sup> Hemcrete<sup>®</sup> Overview

**Hemcrete<sup>®</sup> is a unique, highly sustainable system for the creation of walls, floors, roof insulation and plasters.**

**Hemcrete<sup>®</sup> is a blend of specially prepared hemp shiv (Tradical<sup>®</sup> HF) and a special lime based binder (Tradical<sup>®</sup> HB). Together these products form a bio-composite building material that can be used for the creation of sustainable walls, floors, roof insulation and plasters.**

### Properties:

- Low density
- High thermal insulation
- High sound insulation
- High thermal inertia
- Good vapour permeability
- Good flexibility
- Fire and pest resistance
- Can significantly reduce CO<sub>2</sub> emissions
- Inherently airtight structures

Hemcrete<sup>®</sup> has been created by Lime Technology, the UK's leading developer of lime based building products, in partnership with Lhoist UK, the world's largest manufacturer of lime, and Hemcore, pioneers in the industrial growing of hemp.



## Hemcrete® Products' Components

### Radical®HF

Radical®HF is a hemp aggregate made from the stem of the hemp plant. It is chopped, graded and de-dusted to give a natural, sound and breathable product. Cultivated in the UK without agrochemicals, it is harvested annually. An easily renewable primary material, the industrial processing is mechanical and requires little energy and zero toxic products.

### Radical®HB

Radical®HB is a special binder based on the purest hydrated air lime blended with selected hydraulic and pozzolanic materials. This ensures the perfect particle size distribution and setting characteristics to create the correct binder for use with hemp shives.

## Hemcrete® Performance

Studies have shown that up to 200kgs of CO<sub>2</sub> are emitted in the production of each square metre of walling for houses. For a typical house, this can mean up to 40 tonnes of CO<sub>2</sub> are emitted just in the construction of the walls.

Hemcrete® construction products have the ability to make a very significant contribution in combating global climate change by effectively reducing CO<sub>2</sub> emissions. Fast growing hemp stores carbon during its growth and releases oxygen into the atmosphere. The overall combination of Radical® Hemcrete® products is such that captured carbon is retained within the fabric of a Hemcrete® building. This is typically 110kg/cubic metres of Hemcrete®. Using Hemcrete® you can reduce the CO<sub>2</sub> emissions for wall construction to zero or even less.

*The sequestration of atmospheric CO<sub>2</sub> offers an existing opportunity to grow and produce sustainable, natural construction materials.*

Only the use of Radical® HF mixed with specific Radical® HB or Radical® special hemp binders guarantees quality results.

