

Tradical[®] Hempcrete

Tradical[®] the first hempcrete to comply with:



BBA (British Board of Aarément)

(French Professional Rules for the Construction of Hempcrete Structures)

Self-Insulation System Construction & Restoration

Unique Qualities:

Performance & **Technical Benefits**

Energy Efficiency Reduce energy

and coolina

temperature

consumption in heating

Improve the hygrothermal

behavior and surface

Summer comfort in

air conditionina

about 20 tonnes

of CO₂

buildings without

- Liahtweiaht Porosity, permeability to water vapour
- Sound absorption
- Excellent thermal insulating
- Fire rated for bushfire prone areas 60/60/60
- Termite and mould Resistant

Environmental & Health Qualities

- » Agricultural production without A 100 m² dwelling phytosanitary products built with Tradical[®] » In-door air quality - no VOCs **Hempcrete stores**
- or known toxic elements » Healthy, non-allergenic environment
- » Carbon storage



For Further Information, visit our website www.ozhemp.com.au

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Tradical[®] Lime and Hemp Insulation

20 years of research and experience

CHANVRIBAT HERMO Tradical' Hempcrete Binder Range Hempcrete Render Range



a good insulating wall?

To meet standard RT 2012. The thickness of the Insulatina Wall will be between 28 and 35 cm depending on the thermal calculation for an R value of 3.7 to 4.7 m² K/W



All Types of Building

New Build (timber or steel frame, concrete structure) and Renovation (half-timbering, brick, stone, etc.).





Relative

humidity

variation

absorption

85%

Interior

relative

humidity

value

50 to 55%

Performance and Durability

Quality labels BIO-BASED & BBCA (LOW-CARBON) BUILDINGS	RT 2012	RT Existant par Élément
ZERO- CARBON 1 m ² of wall stores 100 kg of CO ₂	Highlights	Life cycle analysis 100 years
1 hectare of hemp absorbs approx. 15 tonnes of CO ₂	FIRE RATING • Hempcrete Wall, roof B - S1, d0	INTERIOR AIR quality A+++
	• Render A2 - S1, d0	



Tradical® Hempcrete

World-Class **Insulating Material**

Tradical[®] Hempcrete materials set the standard in hempcrete construction. Tradical[®] Hempcrete has been developed in collaboration with professionals to meet their expectations and have been used on a wide range of construction sites for the past 20 years with unrivalled functional reliability and no distress observed to date

Tradical® lime binder is a ready-to-use pre-formulated binder combining air lime and hydraulic binders, to meet all needs in terms of building masonry, rendering and plastering in the renovation and new build market segments. It is the binder for building masonry with all possible wall structures, roofing, rendering and plastering in both renovation and new build constructions.

Outstanding Performance and Durability



How to achieve o



- Ultraliant insulatina concrete
- Suitable for all load-bearing
- building systems: - Timber frames / Steel frames / Half-timbering / Concrete structures
- Self-insulation
- Ideal replacement for tired, old cob
- very wide range of possible finishes: EXTERIOR: Tradical[®] lime render,
- timber, metal, zinc siding etc INTERIOR: Tradical® lime render,
- Tradical® Geothermal render

INSULATING WALL and INSULATING LINING applied between wall and shuttering	ZOOL Hemp Shiv 2 bags Tradical' PF70	ZOOL Hemp Shiv 2 bags Tradical "HERMO
CHARACTERISTICS		
Concrete mixed at	220 kg/m³	180 kg/m 3
Mass density	320 kg/m ³	280 kg/m ³
Thermal conductivity	λ = 0.085 W/m.k	$\lambda = 0.076 \text{ W/m.k}$
Compression strength (at 90 days)	0.9 MPa	0.7 MPa
THERMAL PERFORMA	NCE RATINGS	
15-cm-thick wall	R = 1.8	R = 2.0
20-cm-thick wall	R = 2.4	R = 2.6
25-cm-thick wall	R = 2.9	R = 3.3
30-cm-thick wall	R = 3.5	R = 4.0
35-cm-thick wall	R = 4.1	R = 4.6
40-cm-thick wall	R = 4.7	R = 5.3
		R in (m².K/W)

Used to create lightweight and high-performance insulating walls combined with a load-bearing framework (timber, metal, etc.). Depending on the project, this framework can be embedded or offset towards the interior or exterior.





. Highlights ____

- On solid ground floors thanks to its thermal performance ratings
- On upper storey floors owing to its low density and its thermal and soundproofing performance ratings
- Ultra-light
- levelling with thickness variations corrected as the work progresses (minimum thickness 7cm)
- Flexibility of the hemp/lime composite for perfect adaptation to possible structural deformations
- Variety of finishes: wood flooring, embedded terracotta tiles, ceramic tiles laid with adhesives etc

INSULATING FLOOR	PF 70 PF 70 200L Hemp Shiv 2.5 bags Tradical PF70	Z00L Hemp Shiv 2.5 bags Tradical' THERMO
CHARACTERISTICS		
Concrete mixed at	275 kg/m 3	225 kg/m ³
Mass density	375 kg/m 3	325 kg/m ³
Thermal conductivity	$\lambda = 0.096 \text{ W/m.k}$	$\lambda = 0.084 \text{ W/m.k}$
Compression strength (at 90 days)	1.1 MPa	0.55 MPa
THERMAL PERFORMAN	NCE RATINGS	
10-cm-thick screed	R = 1.0	R = 1.2
15-cm-thick screed	R = 1.6	R = 1.8
20-cm-thick screed	R = 2.1	R = 2.4
25-cm-thick screed	R = 2.6	R = 3.0
		R in (m ² .K/W)

They can be used to build insulating screeds:

On solid ground floor thanks to their thermal performance characteristics
On upper storey floors owing to their low density as well as their thermal and acoustic performance characteristics



Highlights_

- In sloping parts prior to installing the roof
- In the depth of attic floors
- On the floors of unused attic spaces
- Ultra-light, ideal for existing frameworks
- No risk of damage from rodents
- Easy to apply and adapt to existing shapes
- No painstaking cuts that lead to thermal bridges
- immediately protected from water as the roofing can be laid as work progresses
- Suitable for all kinds of frameworks and roof slopes

INSULATING ROOF and UNUSED ROOF SPACE	Fradical PF 70 Conception 200L Hemp Shiv 1 bag Tradical' PF70	Tradical Tradical 200L Hemp Shiv 1 bag Tradical' THERMO
CHARACTERISTICS		
Concrete mixed at	110 kg/m ³	90 kg/m 3
Mass density	210 kg/m ³	190 kg/m ³
Thermal conductivity	$\lambda = 0.06 \text{ W/m.k}$	$\lambda=0.056~W/m.k$
THERMAL PERFORM	IANCE RATINGS	
20-cm-thick insulation	R = 3.3	R = 3.6
25-cm-thick insulation	R = 4.1	R = 4.5
30-cm-thick insulation	R = 5	R = 5.4
35-cm-thick insulation	R = 5.8	R = 6.3
		R in (m².K/W)

Building grade hemp shiv blended with Tradical® PF 70 or Tradical® THERMO enables you to prepare ultralight mortars to thermally insulate roofs: • In sloping parts prior to installing the roofing

In the depth of attic floors
 On the floor of unused attic spaces

Highlights Ultralight insulating concrete for mineral walls and partitions Ideal for complying with

Interior Insulatina

Linings

the French RT Existant par Element regulation • Suited to all mineral

substrates (pisé, cob, stone, brick, aerated concrete etc) • Eliminates significant irregularities

Blends in perfectly with the design of existing wallsNo risk of dew point

Easy to apply and adapts to the geometry of the existing walls as the work progresses
 Variety of finishes possible: from the rustic berno look trough to smoother

rustic hemp look trough to smoother contemporary finishes • For colouring options, see the Tradical® Premium System

Hiahliahts_

mineral substrates

an insulatina wall

• Interior and Exterior use on all types of

Ideal for renovating exteriors by building

with the original wall, with no air laver

Reduce the number of work phases

• No risk of dew point thanks to a tight bond

• Fliminates the 'cold wall effect'

HYGROTHERMAL RENDER	PB 80 Control of the second se	200L Hemp Shiv 4 bags Tradical' Bâtir
Concrete mixed at	825 kg/m ³	400 kg/m ³
Mass density	925 kg/m ³	500 kg/m ³
Thermal conductivity	λ = 0.17 W/m.k	$\lambda = 0.14 \text{ W/m.k}$
THERMAL PERFORMANCE	RATINGS	
3-cm-thick render	R = 0.17	R = 0.21
5-cm-thick render	R = 0.29	R = 0.36
8-cm-thick render	R = 0.47	R = 0.57
		R in (m ² .K/W)

Tradical [®] Hygrothermal render is a hemp render with insulating properties. Can be applied indoors and outdoors, on all kinds of clean and sound substrates, and is compatible with a wide variety of finishes.