

# Tradical® Hempcrete

20 years of research and experience



## WHY CHOOSE TRADICAL® HEMPCRETE?

OzHemp Tradical® Hempcrete is the first and only Hempcrete material in Australia & NZ to conform to the Building Code of Australia (BCA) and be certified by CMI Certification to the CodeMark Australia Scheme.



## ABOUT US

Tradical® Hempcrete has set the global standard in Hempcrete construction as it has been developed in collaboration with professionals to meet their expectations and has been used on a wide range of construction sites for the past 20 years, with unrivalled functional reliability and no distress observed to date. Beyond its technical performance, reliability and conformity with the construction regulations in force, Tradical® Hempcrete also meets other requirements that have become just as indispensable, such as the availability of renewable materials, ability for carbon storage, energy efficiency and non-toxicity all being decisive factors in choosing building materials today.



## UNIQUE QUALITIES OF TRADICAL® HEMPCRETE SELF-INSULATING SYSTEM FOR CONSTRUCTIONS & RESTORATIONS

### Performance & Technical Benefits

- Excellent Insulation Value
- Offers Thermal Mass Ratings
- Fire Rated to BAL-FZ for Bushfire Prone Areas, FRL of 60/60/60
- Termite, Pest & Mould Resistant
- High Porosity & Vapour Permeability
- Good Sound Absorption
- Lightweight



### Energy Efficiency

- Humidity Regulation Allows Reduction in Mechanical Heating/Cooling
- Applicable to Passive Solar and Passivhaus Designs
- Maintains an Ambient Temperature



### Environmental & Health Qualities

- Non-toxic & Hypoallergenic
- No VOCs or Known Toxic Elements
- Low Carbon Footprint
- High Carbon Storage



"100m<sup>2</sup> of 250mm thick Tradical® Hempcrete walls stores approx. 7 tonnes of CO<sub>2</sub>."



## GET IN TOUCH



For more information:  
**W:** ozhemp.com.au  
**FB:** /ozhempau  
**E:** info@ozhemp.com.au  
**P:** (08) 6424 8262



# Tradical® Hempcrete

## World-Class Self-Insulating System

OUTSTANDING PERFORMANCE & DURABILITY



## Insulating Walls



## Interior Insulating Linings



## Insulating Screeds Floors



## Insulating Roofs & Ceiling Spaces

### Highlights



- Lightweight self-insulating Hempcrete for walls.
- Suitable for all load-bearing building systems: timber frames, steel frames & concrete structures.
- Suitable for all substrates: rammed earth, cob, stone, brick & aerated cement.



### Highlights



- Lightweight self-insulating Hempcrete for floor insulation.
- Soundproofing and insulation in floor structures.
- Complete floor finishing using conventional flooring materials.

### Highlights

- Lightweight self-insulating Hempcrete is suitable for all kinds of existing frameworks, roof slopes and shapes.
- Achieve full encapsulation which reduces thermal bridging.
- Offers an alternative to existing insulating methods.

| INSULATING WALL and INSULATING LINING |   |   |
|---------------------------------------|---|---|
| applied between wall and shuttering   |   |   |
|                                       |  |  |
|                                       | 200L Hemp Shiv<br>2 bags Tradical <sup>®</sup> PF70                               | 200L Hemp Shiv<br>2 bags Tradical <sup>®</sup> THERMO                             |
| CHARACTERISTICS                       |   |   |
| Concrete mixed at                     | 220 kg/m <sup>3</sup>   | 180 kg/m <sup>3</sup>   |
| Mass density                          | 320 kg/m <sup>3</sup>   | 280 kg/m <sup>3</sup>   |
| Thermal conductivity                  | $\lambda = 0.085$ W/m.k   | $\lambda = 0.076$ W/m.k   |
| Compression strength (at 90 days)     | 0.9 MPa   | 0.7 MPa   |
| THERMAL PERFORMANCE 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 (m <sup>2</sup> .K/W)            |   |   |

| INSULATING FLOOR                  |   |   |
|-----------------------------------|---|---|
|                                   |  |  |
|                                   | 200L Hemp Shiv<br>2.5 bags Tradical <sup>®</sup> PF70                               | 200L Hemp Shiv<br>2.5 bags Tradical <sup>®</sup> THERMO                             |
| CHARACTERISTICS                   |   |   |
| Concrete mixed at                 | 275 kg/m <sup>3</sup>   | 225 kg/m <sup>3</sup>   |
| Mass density                      | 375 kg/m <sup>3</sup>   | 325 kg/m <sup>3</sup>   |
| Thermal conductivity              | $\lambda = 0.096$ W/m.k   | $\lambda = 0.084$ W/m.k   |
| Compression strength (at 90 days) | 1.1 MPa   | 0.55 MPa  |
| THERMAL PERFORMANCE 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 <sup>2</sup> .K/W)        |   |   |

| INSULATING ROOF and CEILING SPACES |   |   |
|------------------------------------|---|---|
|                                    |  |  |
|                                    | 200L Hemp Shiv<br>1 bag Tradical <sup>®</sup> PF70                                  | 200L Hemp Shiv<br>1 bag Tradical <sup>®</sup> THERMO                                |
| CHARACTERISTICS                    |   |   |
| Concrete mixed at                  | 110 kg/m <sup>3</sup>   | 90 kg/m <sup>3</sup>  |
| Mass density                       | 210 kg/m <sup>3</sup>   | 190 kg/m <sup>3</sup>   |
| Thermal conductivity               | $\lambda = 0.06$ W/m.k  | $\lambda = 0.056$ W/m.k   |
| THERMAL PERFORMANCE 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 (m <sup>2</sup> .K/W)         |   |   |

Build lightweight and highly-insulating walls with the:

- cast-in-situ method, where the Hempcrete mix is hand poured into the wall cavity and manually tamped.
- mechanical spray method, where Hempcrete is sprayed on efficiently with the use of specialised equipment.

Build insulating screeds on:

- solid ground floors for its high thermal performance ratings.
- upper storey floors for its low density, as well as its high thermal and acoustic performance ratings.

Prepare lightweight mixture to thermally insulate roofs:

- in sloping parts prior to installing the roofing.
- on the floor of ceiling spaces.