2. General Information

2.1 Introduction

Hempcrete is an insulating material that can be placed around the structural frame of the building within the walls, or applied as a render onto external walls for its optimal performance, dealing directly with fluctuating outdoor temperatures.

Hempcrete that has dried allows moisture to pass freely and is therefore called a Vapor Permeable or Breathable wall unit. Under no circumstance should this hygroscopic property be hindered with coatings that prevent the transfer of humidity. Materials applied as coating or cladding should be approved by Hempcrete Australia.

Hempcrete walls have a general thickness of 250mm.

Thicker walls give better thermal (R) ratings but will take respectively longer to dry and are therefore more difficult to install.

Hempcrete can be applied in four different forms:

1. Casting between formwork
2. Spraying against formwork – this requires installers with purpose-built machinery and training
3. Hemp block construction
4. Pre-cast wall unit construction

This manual only describes the technique for casting between formwork.

Casting is a technique that requires special equipment and tradespeople trained in hempcrete construction. The implications in mixing, weatherproofing the building and finishing of the hempcrete walls require knowledge and expertise, and are essential to maintain its thermal and physical performance.

2.2 Safety

Safety is to be managed by the contractor at all times.

Hempcrete Australia recommends the following measures be put in place but is not responsible for their implementation.

Under current law anyone working on building sites needs to have undergone safety training. Construction white/blue card training can be done online with companies such as: www.narbiltraining.edu.au. Results will be available immediately after completing the course.

Builders are obliged by law to implement and sustain a work method statement and have a workplace health and safety plan. You will find them on your Hempcrete Australia’s installers website login page.

Before onsite work commences, tradespeople working with hempcrete should be given the following site specific safety induction:

1. Working with lime
2. Working with a lime/hemp mix
3. Working at heights
4. Other site specific risks
2. General Information

The contractor must keep a record of people inducted and the date of induction. This record must be retained for the duration of the work.

2.3 HAZARDS IDENTIFICATION

All work with lime products and lime dust should be performed with safety regulations in place.

- Lime products are considered a Hazardous Substance. INSULIME contains: non-hydraulic lime, hydraulic lime and cement.
- Anyone handling the product must have received clear instructions about the safety aspects involved with working with hazardous powder products.
- Contact with the eyes and skin from both wet and dry product must be avoided as there is a risk of serious damage to eyes. Lime can irritate the skin if in contact with moisture and could evoke burns.
- **S22**: Do not breathe dust.
- **R20/21/22**: Harmful if inhaled or in contact with skin or if swallowed. Avoid breathing dust.

- **R48/20**: Danger of serious damage to health by prolonged exposure through inhalation.
- **S36/37/39**: Wear suitable protective clothing, gloves and eye/face protection.
- Wear long sleeves and pants, rubber gloves with fabric cufflinks (AS 2161) and eye protection (AS/NZS 1337) Eye protection is especially important to avoid liquid lime splashing up from the mixer coming in contact with the eyes.
- **S24/25**: Avoid contact with skin and eyes.
- **R36/37/38**: Irritation to eyes, respiratory system and skin.
- An eye wash emergency kit is recommended (cost around $90).
- **S38**: In case of insufficient ventilation, wear suitable respiratory equipment.
- When exposed to dust also wear a respirator (AS/ANZS 1715,1716). Face masks are recommended.
- **S29**: Do not empty into drains.
- Wash hands before eating.

2.3.1 First Aid

- **Skin**: Wash skin with water and apply natural skin oil or moisturizer.
- **Eyes**: Irrigate eyes immediately with plenty of water for a minimum of 15 minutes.
- **Lungs**: Move away from dusty area if inhalation occurs. If needed seek medical advice.
- **Ingestion**: Wash out mouth with water and give copious amounts to drink. Do not induce vomiting. Seek medical advice if required.
2. General Information

2.3.2 Spills, Environment, Disposal
- Keep all product out of sewerage and storm water drains.
- Re-use mixed product according to the product recommendations or dispose of in trade waste disposal units. Keep packaging together and dispose appropriately to AS Act 2.1
- Eliminate the possibility of lime bags becoming windblown.


2.3.3 Manual Handling

Bags of lime weigh 25Kg and are heavy - lift with care or use load shifting equipment.

Wear long sleeves and leg protection and protect hands and feet. Avoid prolonged dust contact.

2.3.4 Storage
- Keep products dry, out of direct sunlight and off the ground in a well ventilated area.
- Keep out of reach of children.

2.3.5 Working at heights

Risks must be managed if a person could fall less than 3 meters (housing construction), 2 meters (other construction) or if work is performed on a roof pitch under 26° e.g. a pitch of 1-25°.

See the data sheet on risk management for working on heights on your Hempcrete Australia’s installers’ website login page.
This is a preview from the Hempcrete Australia Installation Manual 3rd Edition.

For the full version please contact Hempcrete Australia to register for the training course, or to gain further information and technical support.