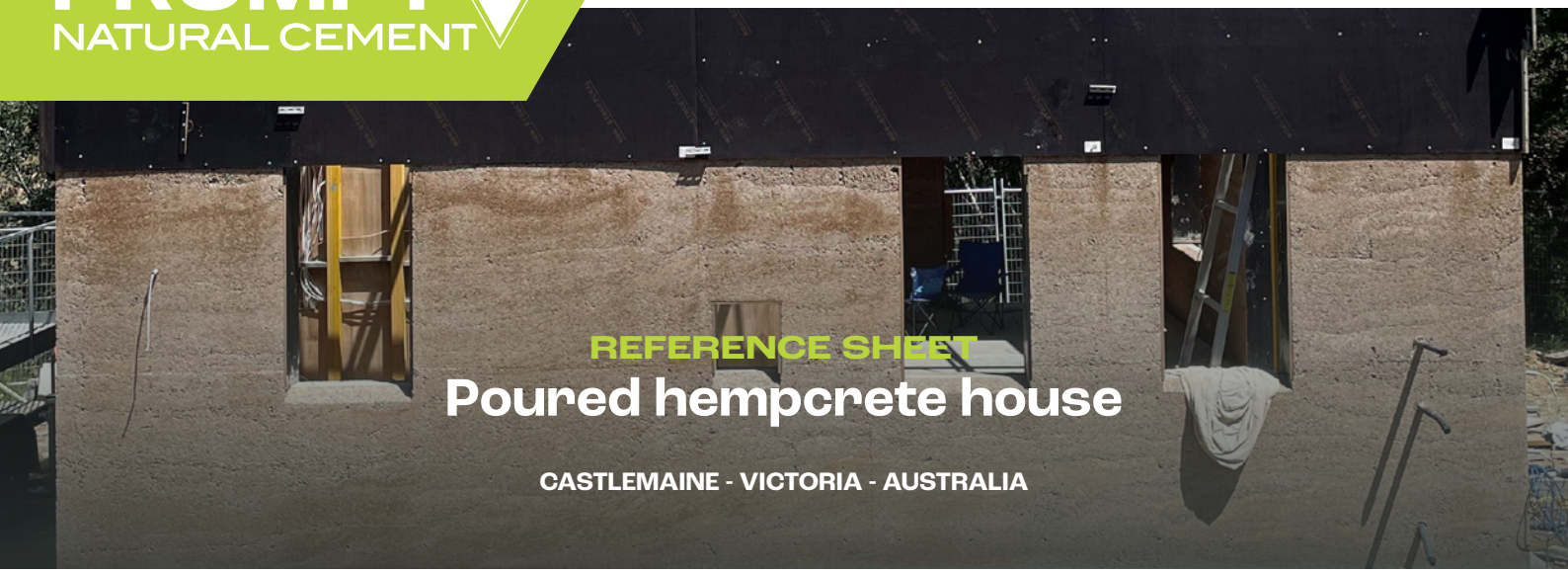
PROMPT NATURAL CEMENT



REFERENCE SHEET

Poured hempcrete house

CASTLEMAINE - VICTORIA - AUSTRALIA

THE PROJECT

Castlemaine is a town in the state of Victoria, Australia, located 120 km north of Melbourne. Like most Australian towns, temperatures recorded in Castlemaine during summer can exceed 45°C. In the coming years, the technical challenge for construction in Australia will be to utilize products and construction techniques that provide thermal comfort during the summer months.

For this project, the goal was to create a residence based on bio-architecture techniques and the use of high-performance natural materials for optimal thermal comfort and air quality, both in winter and summer. The Hemp Building Company (www.thehempbuildingcompany.com.au), an Australian company specializing in hempcrete, was chosen to assist the client from design to construction of their home.

The timber post-and-beam structure was wrapped in 30 cm of hempcrete insulation composed of hemp shivs and natural PROMPT cement. The thermal mass and hygrothermal behavior of hempcrete address the challenges of thermal comfort in both summer and winter.

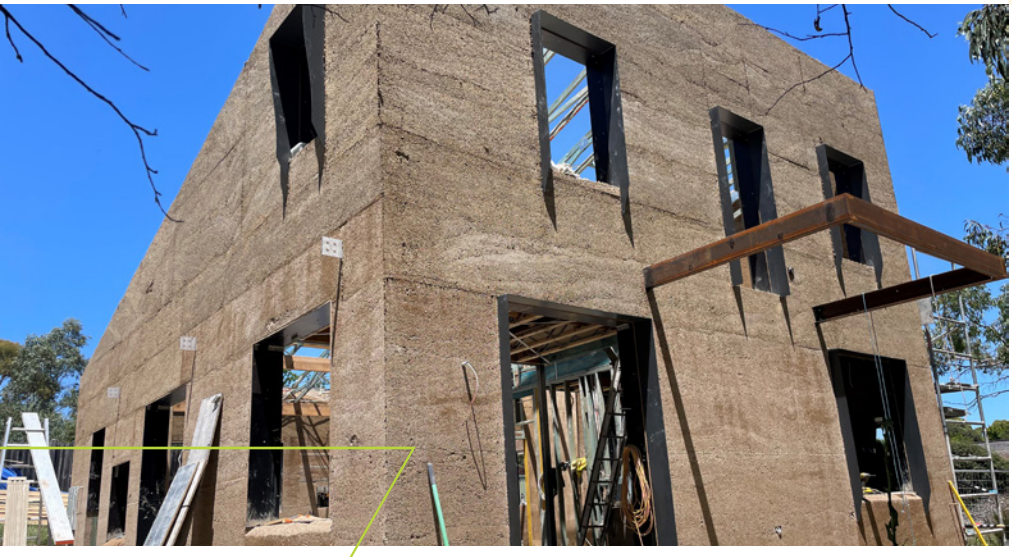
Project owner
Particular

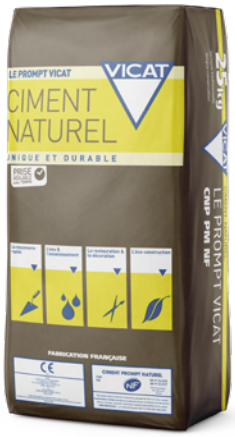
Project manager
The Hemp Building Company

Construction company
The Hemp Building Company

Construction period
6 months

Delivery date
January 2024





PNC = Prompt natural cement

THE TECHNIQUE

Hempcrete Slip Formwork

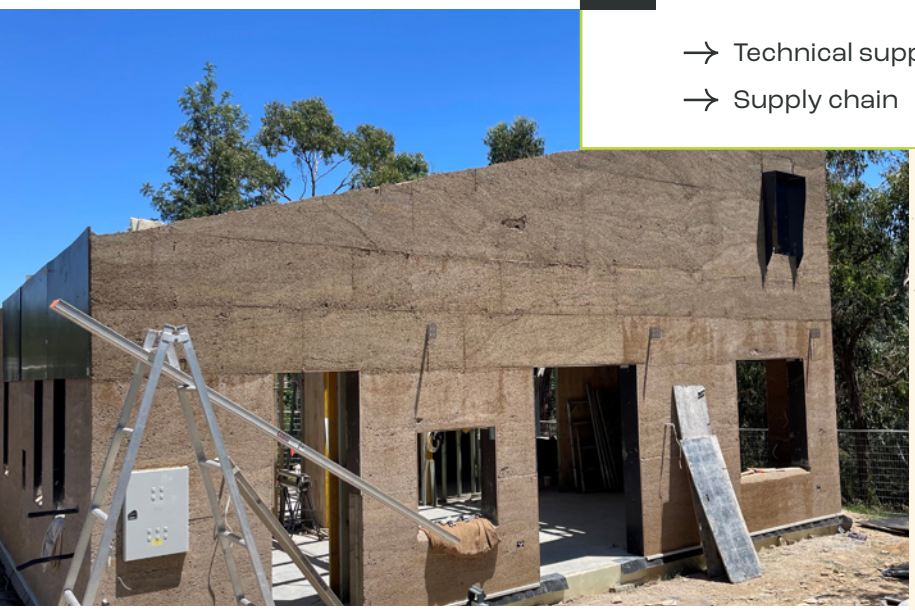
The 44 m³ of hempcrete was prepared using a horizontal-axis mixer.

After mixing, the hempcrete is poured between the wooden formworks.

With the natural PROMPT cement, demolding can be done in less than 6 hours, improving the progress of the construction site.

The mixture used consists of:

- → 1 bag of 25 kg Natural PROMPT Cement
- → 12 kg of Hemp Shives
- → Citric acid according to temperature (minimum 0.3% of the weight of PROMPT)
- → Water to Natural PROMPT cement ratio = 1 to 1.2.



+ VICAT'S ADVANTAGES

- → Technical support : formulation and application advices
- → Supply chain

AIMED PERFORMANCES

Compatibility with plant aggregates

Permeability