



HEMPBLOCK
AUSTRALIA

WELCOME



**HEMPBLOCK
INTERNATIONAL**

Superior & High Performing Natural Building Products
Interlocking Dry-Stacked & Solid HempBLOCKS

THE PROBLEM

Traditional Building Materials:

- are high in embodied energy
- VOCs – causing sick building syndrome
- require many layers to achieve energy efficiency for homeowners
- are in short supply with long delivery times
- costs have increased
- difficult to comply with new environment regulations

Add to this:

- the shortage of skilled labor
- builders are reluctant to make a change to using other materials
- the perception that using green building materials is expensive and requires specialist equipment and skills



THE PRODUCT

THE HempBLOCK: ONE PRODUCT – SO MANY BENEFITS...UNMATCHED BY ANY OTHER...



**All
Natural**



**Easy, Fast
& Economic**



**Excellent
Insulation**



**Load
Bearing
SYSTEM**



**Absorbs
Sound**



**Carbon
Negative**



**Fire
Resistant**



**Mould
Resistant**



**Termite
Resistant**

HEMPBLOCK - SUPERIOR BUILDING MATERIALS:

- no chemicals,
- less layers to achieve high levels of energy efficiency,
- very low embodied energy and store CO2,
- are interlocking dry-stacked mortar-less blocks requiring less skills to install than standard bricks, blocks and timber framing,
- are installed up to 70% faster than other building materials
- a load-bearing structure is incorporated into the walling system during construction,
- are factory produced, arrive on-site ready to use with the loadbearing system - AS A KIT HOME
- are code compliant...



BUILDING CODE COMPLIANT

LB 300 Interlocking Dry Stacked and HB 300 Facade or Infill HEMPBLOCKS

Key Classifications and Performance Data

Thermal resistance 4.61 m².K/W (300mm)
Thermal conductivity 0.065 W/(m.k)
Acoustic resistance 43 (-1 ; -2) dB
Reaction to fire classification B-s1, d0
Fire resistance classification REI 30
Air quality A+
Water buffer value 2.35 g / (m².% RH)
Water vapor permeability $\mu < 35$
Seismic resistance Zone 1 to 4
CO₂/m² of block 0.889kg
100 year life of walls 56kg CO₂ stored/1m² of wall
Mould and termite Resistant
Volatile Organic Compounds Nil
Weight 18kg/block



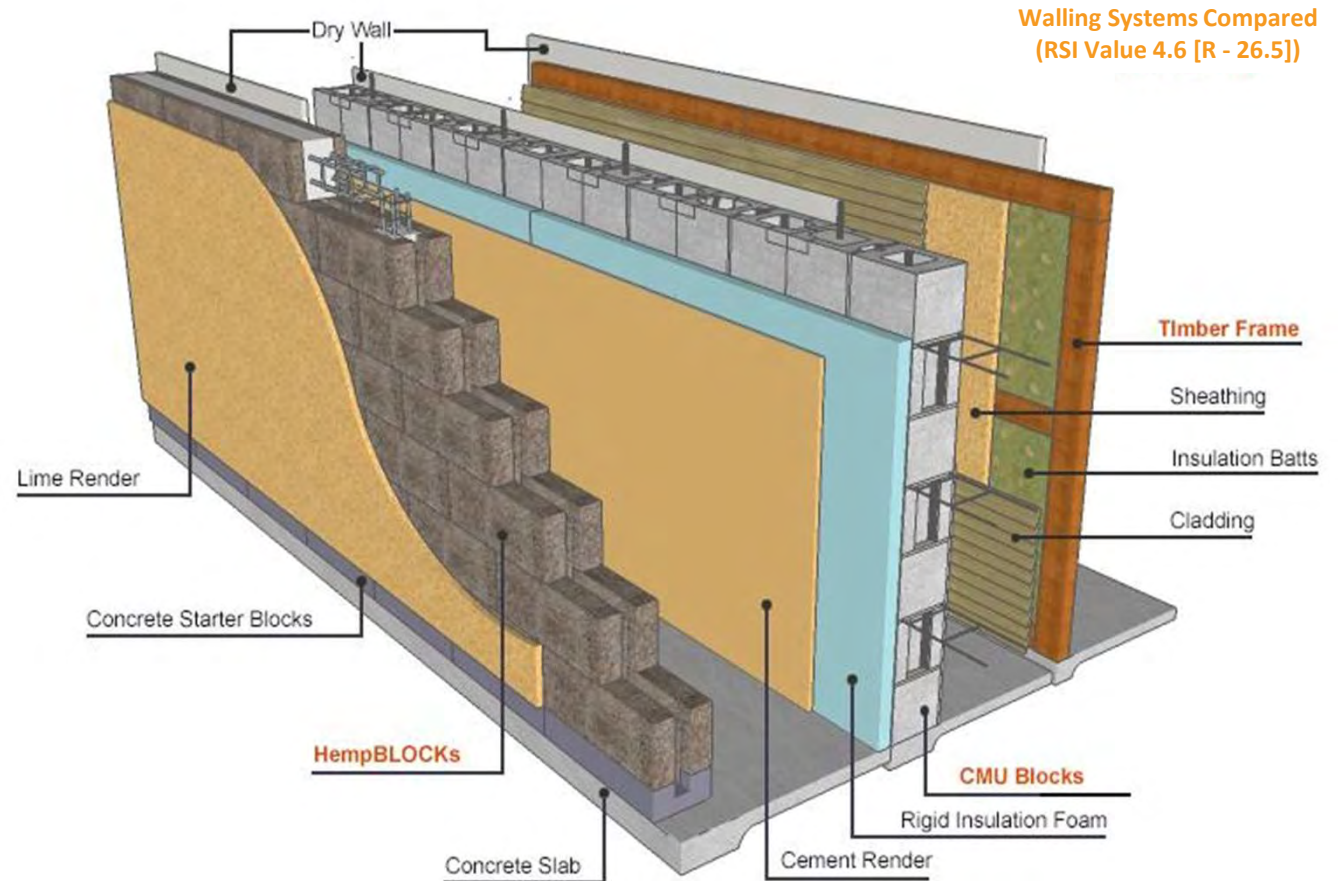
THE TECHNOLOGY COMPARED TO OTHER BUILDING MATERIALS

HempBLOCKS
The Math is Simple

LESS MATERIALS + LESS LABOR
=
LESS COST

NO NEED FOR ADDITIONAL:

- **Wall Insulation**
- **Sound Dampening**
- **Heating and Cooling**
- **Pest or Mould Control**
- **Fire Protection**



HEMPBLOCK TECHNOLOGY

Factory Produced



LB 300 INTERLOCKING HempBLOCKs



Solid



Column



Lintel





















The LB 300 HempBLOCK

Incases a Load Bearing System.

Are dry stacked or interlocked.

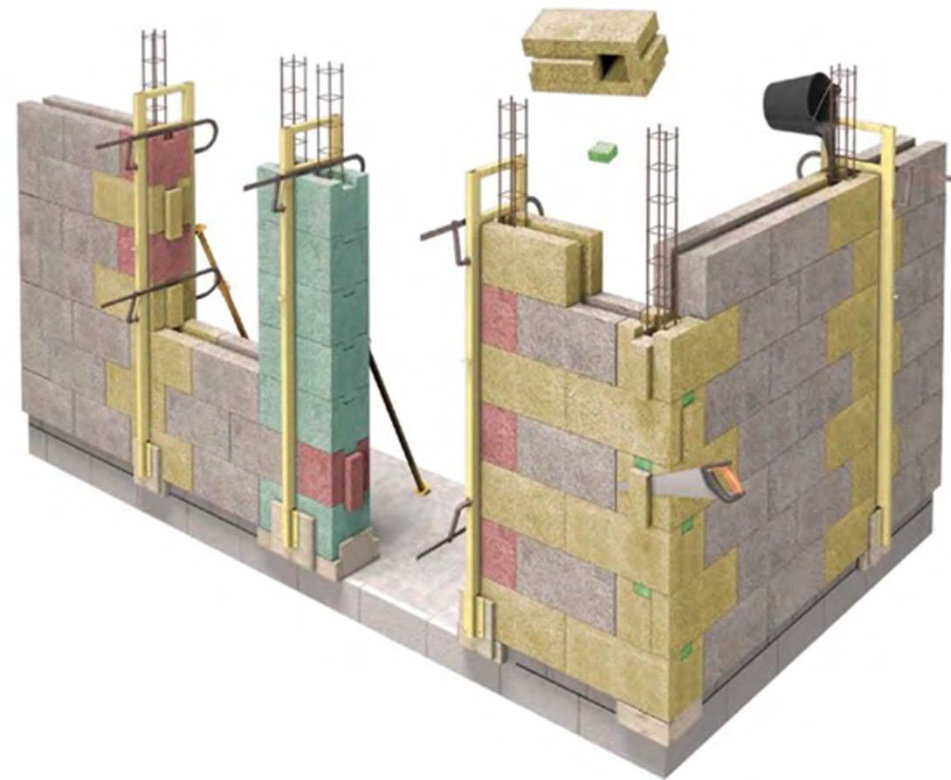
No glue / mortar

There are 3 systems that create the load bearing system;

- Steel reinforced concrete
- Steel posts and timber beams
- FRP posts and beams

STEEL REINFORCED CONCRETE

Load bearing system
made of steel reinforced concrete.
The posts, lintels and the bond beams.













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| www.hempblockaustralia.com

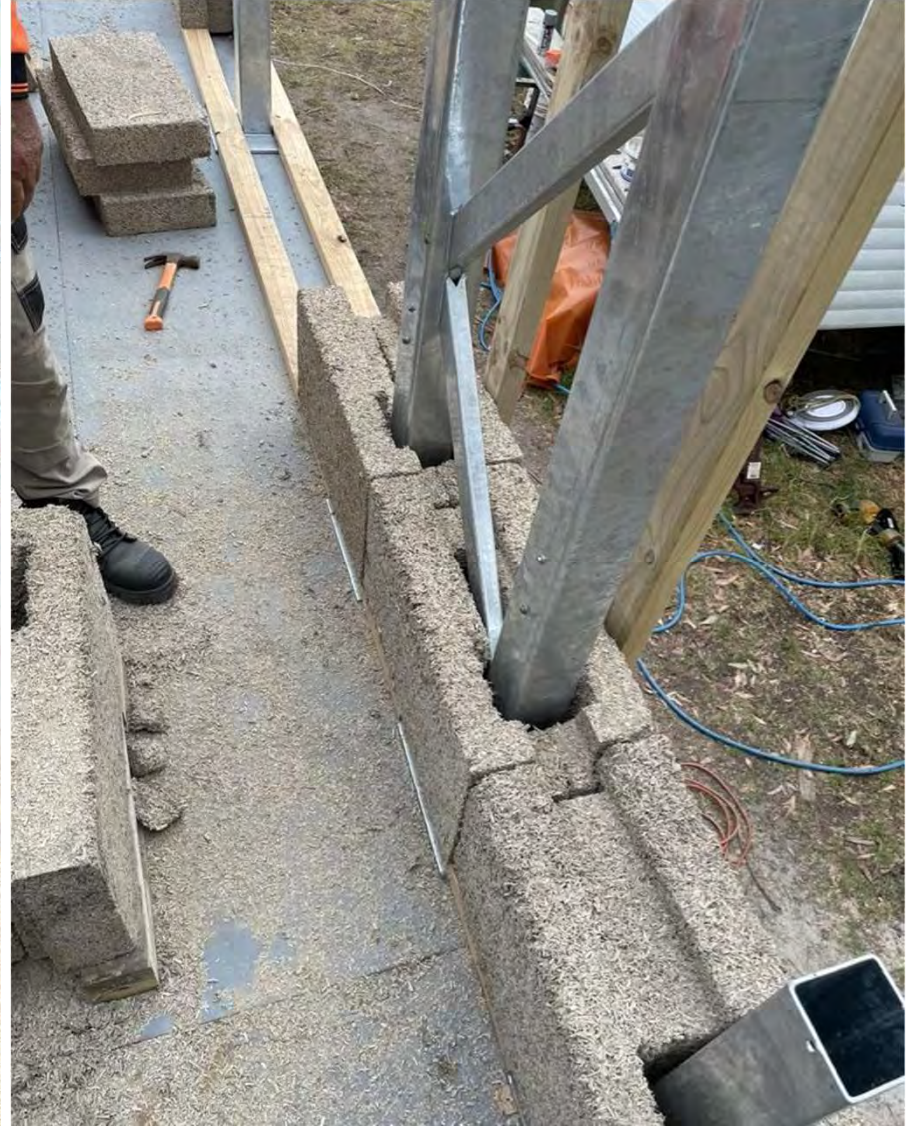
STEEL POSTS AND TIMBER BEAMS AND LINTELS

Here all the posts encased in the walls are made of steel. The lintels and bond beams are made of timber and connected with bolts.

<https://youtu.be/XNHCSQvZ6I>









The remaining space around the load bearing system is filled with a perlite / cement mix.

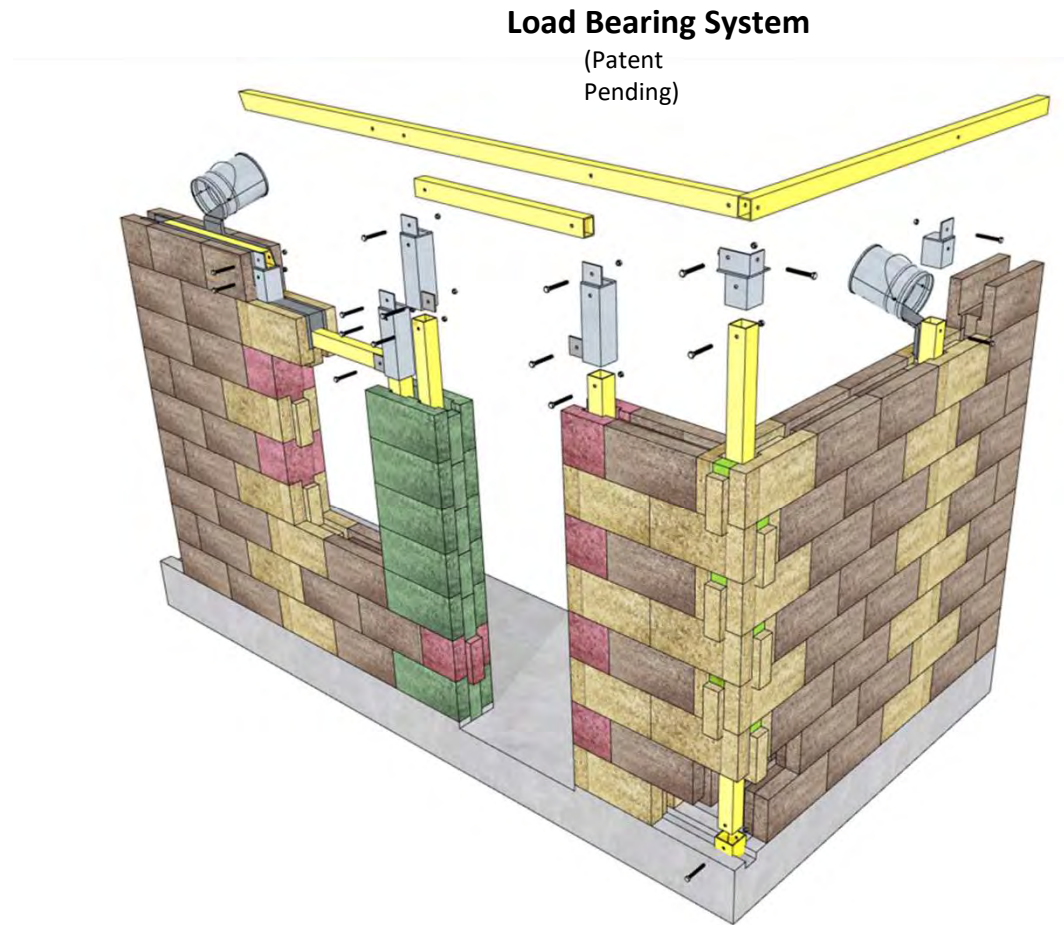


Time lapse of this Sunshine Coast HempBLOCK build

Click https://youtu.be/hjZTbpn_IDk

FRP (Fibre Reinforced Polymer) POSTS, BEAMS LINTELS

Load bearing system made of
Fibre Reinforced Polymer.
The posts, lintels and
bond beams.



FRP (Fibre Reinforced Polymer) POSTS BEAMS AND TIMBER LINTELS









The HB HempBLOCK series

These are non load bearing blocks using a lime mortar.

Cladding / insulation or partition walls
600 mm long and 300 mm high

Thickness;

- 100 mm
- 150 mm (recomended for internal walls)
- 200 mm
- 300 mm (great for exterior walls)











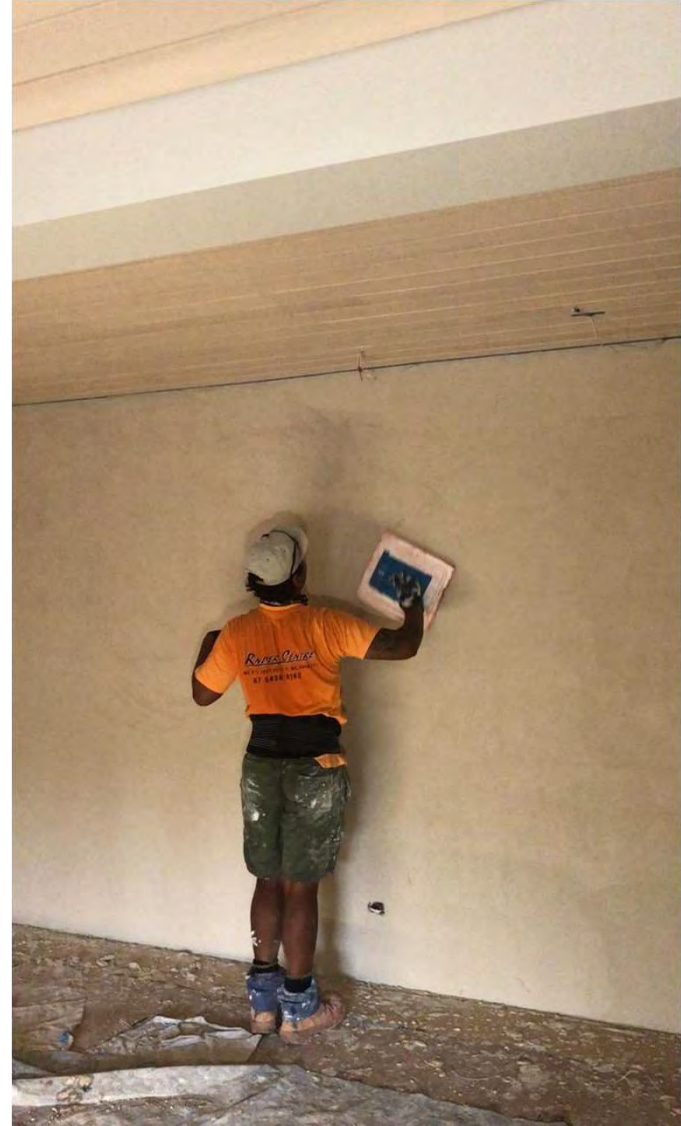
The interior and exterior walls are generally finished with lime render









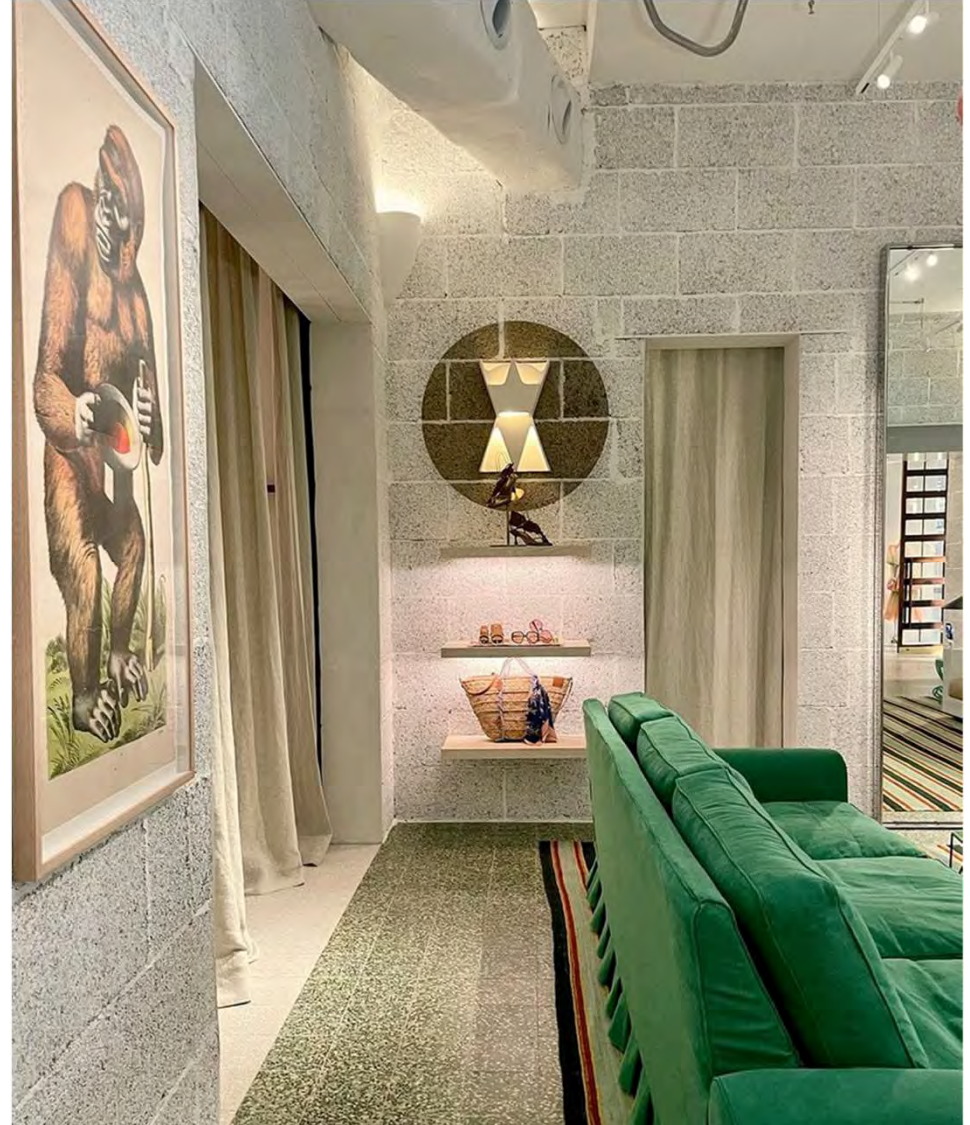








ZIMMERMANN





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THANK YOU