

TECHNICAL DETAILS - LB 300

Hemp BLOCK LB 300 is a construction system that consists of hempcrete blocks that are dry-bonded and serve as formwork and filler to a reinforced concrete column / beam structure.

COMPOSITION

The hempcrete is composed of **hemp** (stem, wood or shiv) and **prompt natural cement** (fired like lime at low temperature).

Industrial Hemp: 84%

- Plant with zero waist
- No pest control /Roundup needed
- Little irrigation needed
- Promotes biodiversity
- Does not deplete the earth
- Can use fallow or uncultivated land
- Captures CO²

Prompt Natural Cement: 16%

- Cement with a high silica content
- Excellent durability
- Cured by low temperature
- A unique mineralogical composition, compatible with the plant

Hempcrete

- Not fired like clay blocks, dries naturally
- Hempcrete is 100% renewable
- Light weight
- Carbon sink

INSTALLATION AND CONSTRUCTION

This system, designed to optimize construction sites, saves considerable installation time:

- Block placing without mortar
- No insulation needed
- Ease of installation
- No installation or design constraints

PROPERTIES

The **Hemp BLOCK LB 300** construction system offers high performances:

- Thermal resistance
- Hygroscopic regulation
- Acoustic performance
- Sequestering CO²
- Fire resistant
- Load bearing and insulation in one

TECHNICAL CHARACTERISTICS

<i>Dimensions</i>	(L) 1'11 5/8" x (H) 1' 1/8" x (W) 11 13/16"
<i>Weight</i>	39 LB
<i>Efficiency</i>	Only 5.3 blocks per 10 sq. ft.
<i>Wall thickness</i>	11 13/16"
<i>Thermal resistance (m²K/W λ sec)</i>	Block walls: R 25 and R 35 with inner and outer render
<i>Reaction to fire</i>	B-S1, d0 Compliment to Australian Standards
<i>Fire resistance FRL</i>	FRL 30/30/30 with inner & outer render FRL 60/60/60
<i>Bushfire Attack Level BAL</i>	Flame zone FZ
<i>Resistance to impact</i>	Excellent
<i>Dew point</i>	Non
<i>Acoustic performance</i>	Rw 43 db
<i>Sequestering CO²</i>	9920 LB for one 1400 sq ft house
<i>Carbon impact of blocks</i>	0.889 kg CO ₂ /m ²
<i>Phase shift</i>	Between 10 and 18 Hours
<i>Life duration of the blocks</i>	100 year
<i>Equivalent thickness of sd diffusion</i>	2 ft (relative humidity 100%) - 3.9 ft (relative humidity 0%)
<i>Air tightness</i>	0.30 m ³ /h.m ²