HEMPBLOCKUSA

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 waste
- No pest control /Roundup needed
- Little irrigation needed
- Promotes biodiversity
- Does not deplete the earth
- Can use fallow or uncultivated land
- Captures CO^2

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

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PROPERTIES

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

- Thermal resistance
- Hygroscopic regulation
- Acoustic performance
- Sequestering CO^2
- Fire resistant
- Load bearing and insulation in one

TECHNICAL CHARACTERISTICS

Dimensions	1’15/16” x 11 13/16” x 12 2/16”
Weight	39 LB
Efficiency	Only 5.3 blocks per 10 sq. ft.
Wall thickness	11 13/16”
Thermal resistance (m²K/W λ sec)	Block walls: R 24 and R 27.4 with inner and outer render
Reaction to fire	B-S1, d0 Compliment to Australian Standards
Fire resistance FRL	FRL 30/30/30 with inner & outer render FRL 60/60/60
Bushfire Attack Level BAL	Flame zone FZ
Resistance to impact	Excellent
Dew point	Non
Acoustic performance	Rw 43 db
Sequestering CO^2	9920 LB for one 1400 sq ft house
Carbon impact of blocks	0.889 kg CO2/m²
Phase shift	Between 10 and 18 Hours
Life duration of the blocks	100 year
Equivalent thickness of sd diffusion	2 ft (relative humidity 100%) - 3.9 ft (relative humidity 0%)
Air tightness	0.30 m3/h.m²