

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 load-bearing system that can be steel-reinforced concrete, steel posts or Fibre Reinforced Polymer (FRP) post and beams.

COMPOSITION

The hempcrete is composed of industrial **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 CO²

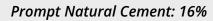
Hempcrete

- 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



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

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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

KEY CLASSIFICATIONS AND PERFORMANCE DATA

Dimensions	300mm W x 308mm H x 600mm L
Weight	18 Kg
Efficiency	Only 5.4 blocks/m ²
Wall thickness	300mm + render
Thermal resistance (m²K/W λ sec)	4.61 m2.K/W (300mm)
Thermal conductivity	0.065 W/(m.k)
Acoustic resistance	Rw (C;Ctr) 43(-1;-2)
Reaction to fire classification	B-s1, d0
Fire Resistance Level (FRL)	FRL : -/60/60, FRL 30/30/30 with inner & outer render
Resistance to impact	Excellent
Dew point	Non
Air Quality	A+
Water buffer value	2.35 g / (m2.% RH)
Water vapor permeability	μ < 35
Sequestering CO ² /m ²	0.889kg/1m2 of wall
Life duration of a HempBLOCK wall	min 100 year with 56kg CO2 stored/1m2 of wall
Mould and Termite	Resistant
Volatile Organic Compounds (VOC's)	Nil
Equivalent thickness of sd diffusion	0.6m (relative humidity 100%) - 1.2m (relative humidity 0%)
Air tightness	0.30 m3/h.m²

