

IF ISOHEMP



NATURALLY EFFICIENT

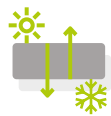
The insulating hemp block
for building & renovation.

KEY ADVANTAGES

Hemp brings a true sensation of comfort. It makes the atmosphere warm. There's nothing else like it.

Brigitte | owner, France

TECHNICAL DATA



THERMAL RESISTANCE

R = up to 5m²K/W



THERMAL CONDUCTIVITY

λ = 0,071W/mK



PHASE SHIFT

from 4 to 24h



ACOUSTICS

sound reduction from 37 to 45dB



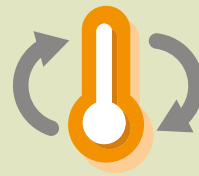
RESISTANCE TO FIRE

from 60 to 120 minutes



RESISTANCE TO COMPRESSION

300kPa



thermal regulation



water regulation



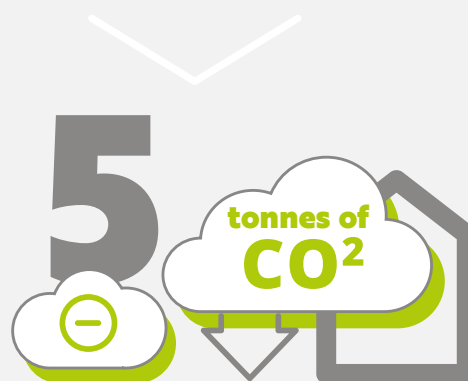
sound proofing



resistance & reaction to fire

I used hemp blocks for the first time following a request from one of my clients who wanted to integrate it into their construction project. I discovered a product with very interesting characteristics that's also easy to implement. It's a very nice, natural alternative to other products available on the market.

David | architect, Belgium



Constructing 1 single-family house with IsoHemp hemp blocks saves 5 tonnes of CO²



WHY CHOOSE ISOHEMP HEMP BLOCKS?

- They **regulate the temperature** thanks to their ability to diffuse accumulated heat. True thermal buffer; the internal temperature is kept constant and the impact of heat variations between day and night is significantly reduced
- They **regulate humidity** thanks to their high permeability to water vapour. They also act as a water buffer, thus providing a constant and healthy indoor climate for the building occupants.
- They **dampen and absorb noise**. As true sound dampeners, they allow the absorption or abatement of the majority of acoustic waves, thus protecting against noise pollution.
- They **do not catch fire and do not emit toxic fumes**. Thanks to their excellent reaction to fire, they offer up to more than 2 hours of fire resistance depending on the finish and thickness.
- As a **100% natural solution**, they also have a **positive carbon footprint**. A pallet of hemp blocks IsoHemp stores 100kg of CO2.

APPLICATIONS OF ISOHEMP HEMP BLOCKS

CONSTRUCTION

Regardless of the construction system you choose, hemp blocks fit perfectly into your project!

- **Hempro System** – For a 100% hemp construction.
- Pole-beam system (wood, steel, concrete) –hemp blocks allow for the creation of insulating and breathable mono-walls that do not require the use of any other insulation materials
- Wood frame – hemp blocks form the envelope of the building and provide the thermal inertia necessary for comfort in summer and winter alike.
- Traditional construction – hemp blocks guarantee stable insulation performance over time

RENOVATION

When conducting building renovations, particular attention must be given to achieving a good match between the existing walls and the new materials used.

IsoHemp hemp blocks offer you the guarantee of efficient energy renovation both in internal and external insulation.

INTERIOR WALLS

Create walls or separate rooms with hemp blocks to ensure lightness, simplicity and acoustic comfort.

FLOORS & ROOFS

Using hemp blocks to insulate your floors and flat roofs makes your life easier both in terms of speed and simplicity of application.



SUMMARY TABLE

Technical characteristics	Block 6	Block 9	Block 12	Block 15	Block 20	Block 25	Block 30	Block 36	Unit
Thickness	6	9	12	15	20	25	30	36	cm
Modular dimensions	60x30								cm
Number of blocks per m ²	5,5								blocks/m ²
Maximum block weight	4,6	7,1	9,2	11,5	15,3	20	23	27,5	kg
Bulk density when dry	340								kg/m ³
Adhesive consumption	2,4	3,6	4,7	5,8	7,8	9,7	11,6	14	kg/m ²
Dry thermal resistance	0,90	1,34	1,79	2,24	3	3,73	4,48	5,37	m ² K/W
Thermal resistance at 50% RH	0,85	1,27	1,69	2,11	2,82	3,52	4,23	5,07	m ² K/W
Thermal conductivity λ	0,071								W/mK
Phase shift	3,9	5,9	7,9	9,8	13,1	16,4	19,7	23,6	h
Sound reduction index* Rw	37	38	39	40	42	43	44	45	dB
Acoustic absorption coefficient α	0,85								
Equivalent air layer thickness Sd	0,17	0,25	0,34	0,42	0,56	0,70	0,84	1,00	m
Water vapour resistance factor μ	2,8								
Compressive strength	300								kPa

Technical characteristics	O Blocks		U Blocks		Unit
Thickness	30	36	30	36	cm
Modular dimensions	60x30				cm
Maximum block weight	19,7	24,3	15,3	18,3	kg
Diameter of the recess	15	18	15 x 20	18 x 20	cm

ISOHEMP

ISOHEMP S.A.

Rue du Grand Champ, 18
Z.I. Noville-les-Bois
5380 Fernelmont
Belgium

Tel +32 (0)81 39 00 13

Fax +32 (0)81 39 00 14

Mail info@iso hemp.be

WWW.ISOHEMP.COM

