ISOHEMP
NATURAL BUILDING

Syst'HEMP Wood.

Natural comfort of hemp blocks at the heart of timber construction

- Bio-based
- Breathable
- Certified

Recognised and certified.

ATEx
DE CAS A
N°3211_V2

aTg 3169

Produit Biosourcé

FDES Vérifiée inies

ÉMISSIONS DANS L'AIR INTÉRIEUR A+ (A+ A B C)

Evidence.

Timber has found its perfect ally.
Its name is Hemp.

Why combine timber and hemp?

Timber shapes the structure.

Timber construction has become one of the most effective responses to today's requirements: lightweight, fast, precise high-performing, **low-carbon and durable**.

Without thermal mass, walls react quickly. In summer, heat builds up rapidly. In winter, temperature drops are immediately felt. **On paper, performance is high. In reality, comfort can fluctuate.**

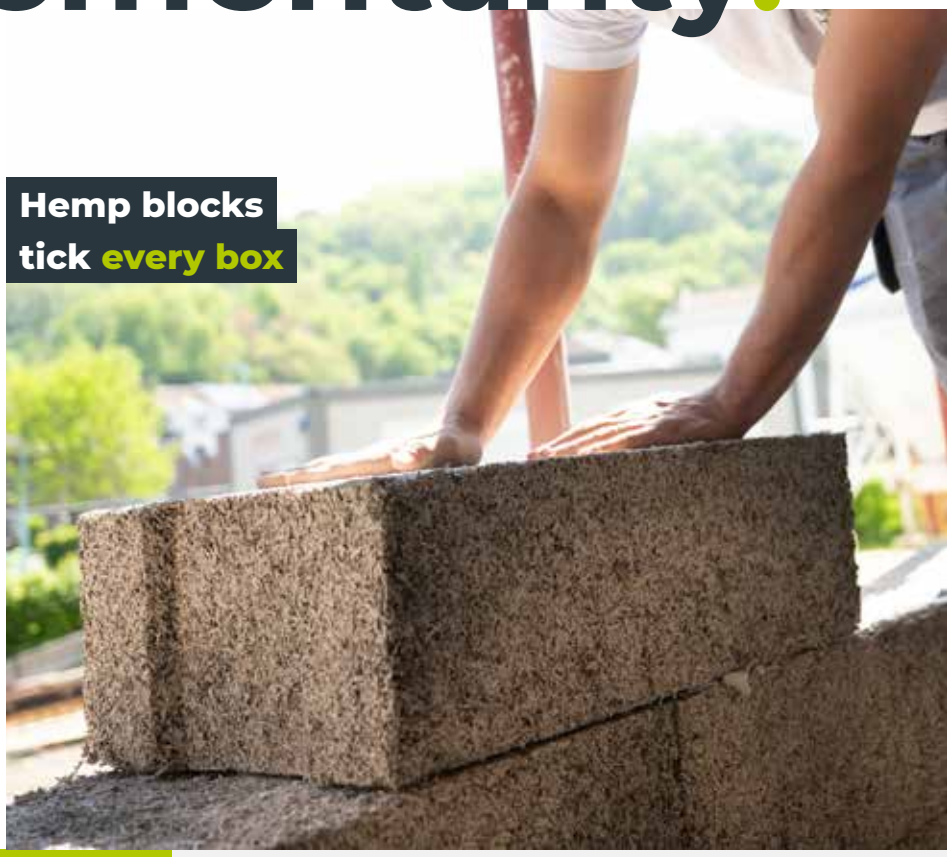
Hemp regulates.

IsoHemp blocks absorb, store and release heat gradually. Their mineral and plant-based structure acts as a **thermal buffer** cool in summer, warm in winter, with **natural moisture regulation**.

Combined with timber, they do not compete — **they complement it exactly where needed**.

Complementarity.

- **Monolithic wall system**
  Reduced installation steps
- **Winter comfort**
  Lower energy demand
- **Summer comfort**
  Thermal inertia and time lag for natural cooling
- **Healthy indoor environment**
  No harmful VOCs
- **Enhanced fire safety**
  Highly fire-resistant, no toxic smoke
- **Exceptional lifespan**
  150 years, up to 6× longer than conventional insulation
- **Traditional installation**
  Thin joint bonding



Timber structure.

- Lightweight
- Precision
- Fast assembly
- Structural performance

+

Hemp blocks.

- Mass
- Thermal inertia
- Regulation
- Comfort

Thermal conductivity
λ = 0,071 W/mK

Thermal phase shift
Optimal

Vapour permeability
2,8 μ

Fire resistance
Up to 240 min – B-s1, d0

Acoustic performance
Up to 44 dB – α 0.85

Service life
150 years

> “In wood-frame construction, the issue of summer comfort often comes up. The thermal mass provided by hempcrete helps naturally stabilize the indoor climate”.

Mathieu D. architect DPLG, wood construction specialist

Timber frame.

Performance as standard.

Timber frame construction has become the leading system for residential timber buildings and it's easy to see why.

Fast on-site assembly. Optimised wall build-ups for high thermal performance. Fully mastered by contractors, engineers and architects.

It performs.

But like any high-performance system, it reaches its full potential when **paired with the right solution**.

Comfort, naturally.

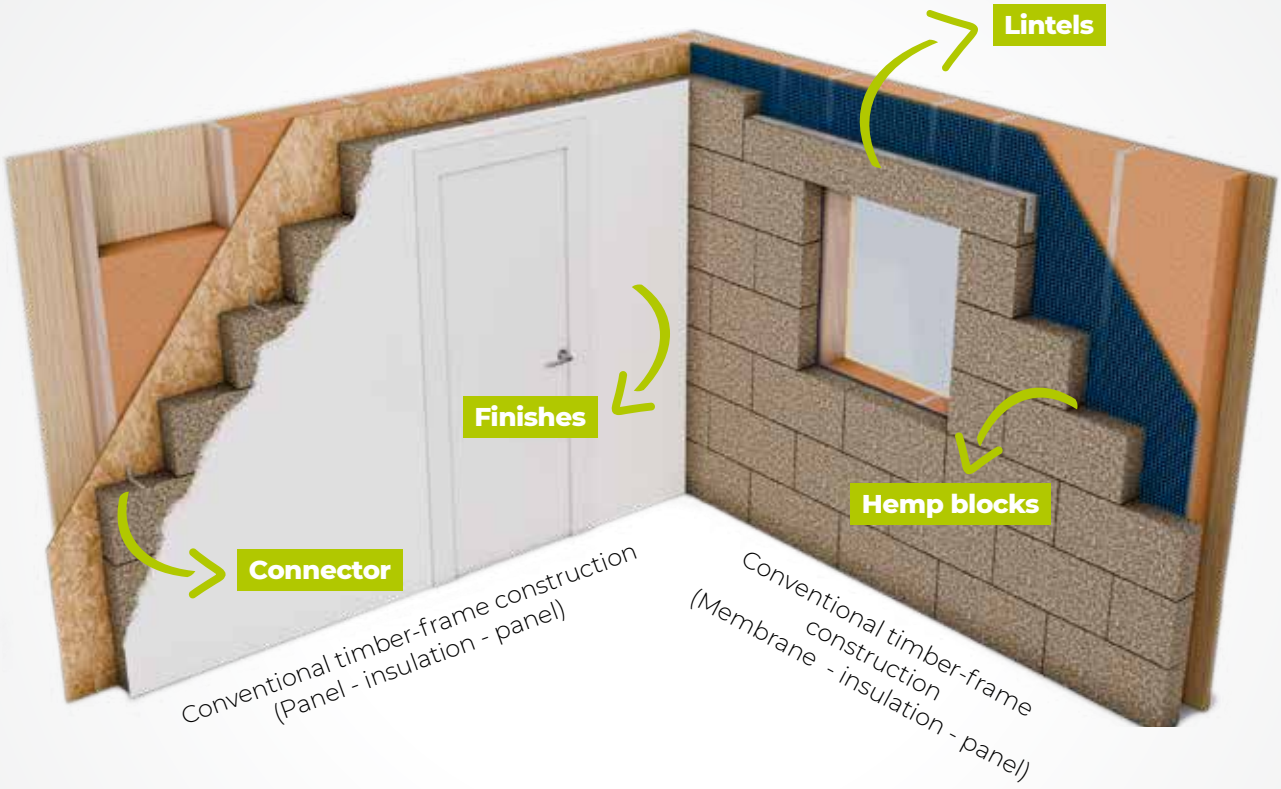
Placed on the inner side, IsoHemp blocks provide the **thermal mass** missing from lightweight structures.

They absorb, store and release heat, stabilising indoor **temperatures** and ensuring **consistent comfort** all year round.

Used externally, they provide robust support for mineral renders while increasing the **building envelope inertia**.

Light structure. Deep comfort.

SYST'HEMP WOOD - IsoHemp Solution



Tips :
CLT can also be considered as a solution compatible with the IsoHemp block

Site advantage :
services and technical installations remain simple. No additional steps are required.

Confort.

SYST'HEMP WOOD - TIMBER FRAME

	CONVENTIONAL	+ ISOHEMP BLOCK 9	+ ISOHEMP BLOCK 12	+ ISOHEMP BLOCKP 15
WINTER COMFORT	★	★★	★★	★★★
Thermal Resistance m²/K	5,3	6,4	6,8	7,3
SUMMER COMFORT	★	★★★	★★★	★★★
Thermal phase shift h	13,8	Insignificant	Insignificant	Insignificant
Damping	27,9	>100	>100	>100
MOISTURE REGULATION	★	★★	★★	★★
ACOUSTIC COMFORT	★	★★★	★★★	★★★
FIRE RESISTANCE	★	★★	★★	★★

Simulations based on the most common timber frame configurations available on the market.

Post and beam.

Structure as architecture.

This system separates load-**bearing structure from the envelope** unlocking true architectural freedom.

Large spans. Open spaces. Visible structure.

A construction approach that celebrates materials and **design flexibility**.

It requires a filling solution to match.

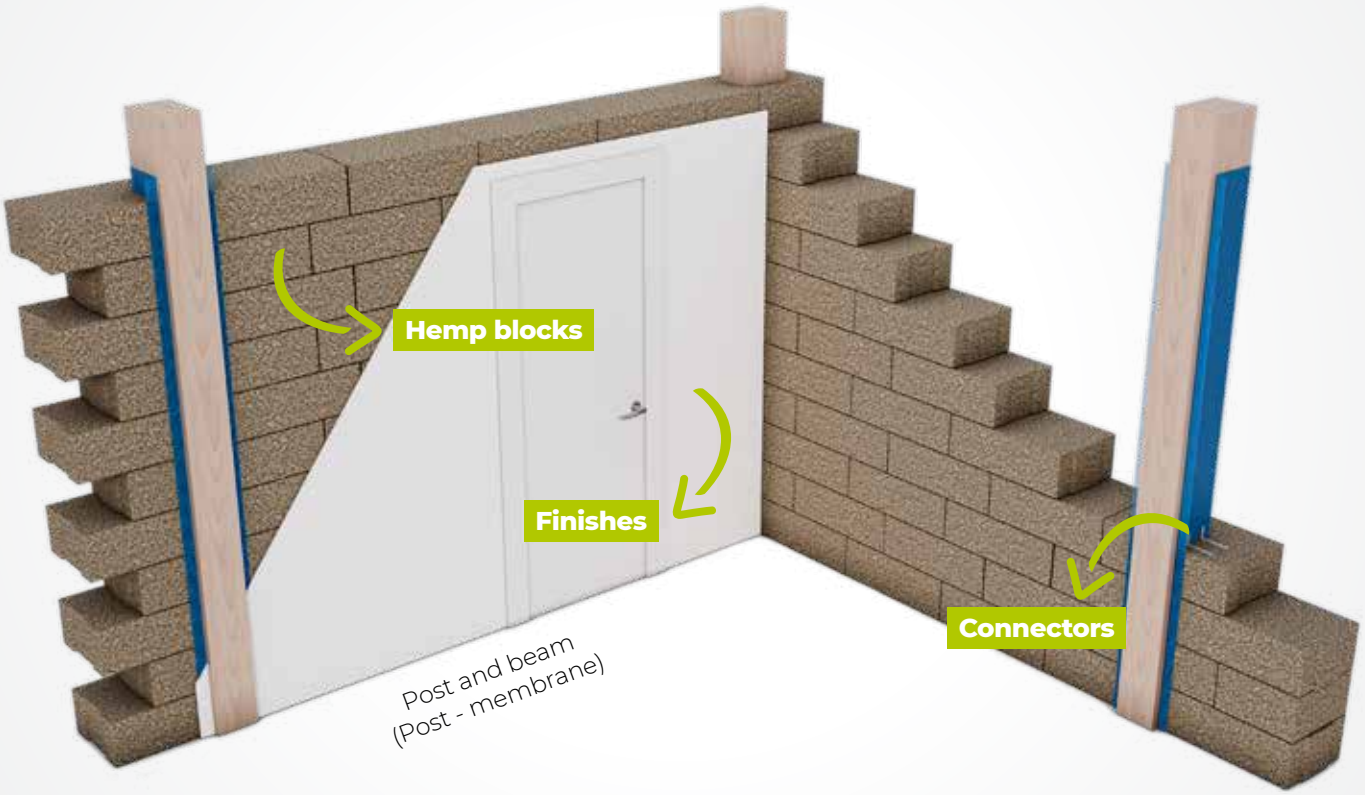
A breathable wall.

Between structural elements, IsoHemp blocks create a **massive, breathable wall** fully compatible with timber.

More than just infill, **they bring mass, balance and lasting comfort**.

Structural freedom. Monolithic simplicity.

SYST'HEMP WOOD - IsoHemp Solution



Monowall.

SYST'HEMP WOOD - POST AND BEAM

	ISOHEMP BLOCK 36	ISOHEMP BLOCK 20 + ISOHEMP BLOCK 20	ISOHEMP BLOCK 36 + ISOHEMP BLOCK 15
WINTER COMFORT	★	★★	★★★
Thermal Resistance m²/K	5,4	6	7,5
SUMMER COMFORT	★★★	★★★	★★★
Thermal phase shift h	Insignificant	Insignificant	Insignificant
Damping	>100	>100	>100
MOISTURE REGULATION	★★★	★★★	★★★
ACOUSTIC COMFORT	★★★	★★★	★★★
FIRE RESISTANCE	★★★	★★★	★★★

Let’s discuss your timber project.

Specified early in the design process, Syst'HEMP Wood streamlines every stage that follows.

By your side

- Pre-design & plan analysis
  We review your project before discussing the product with you.
- Technical support & specification
  Dimensioning, technical data sheets, responses to design offices.
- Training & site assistance
  Because a high-quality material deserves to be installed to the highest standard.

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