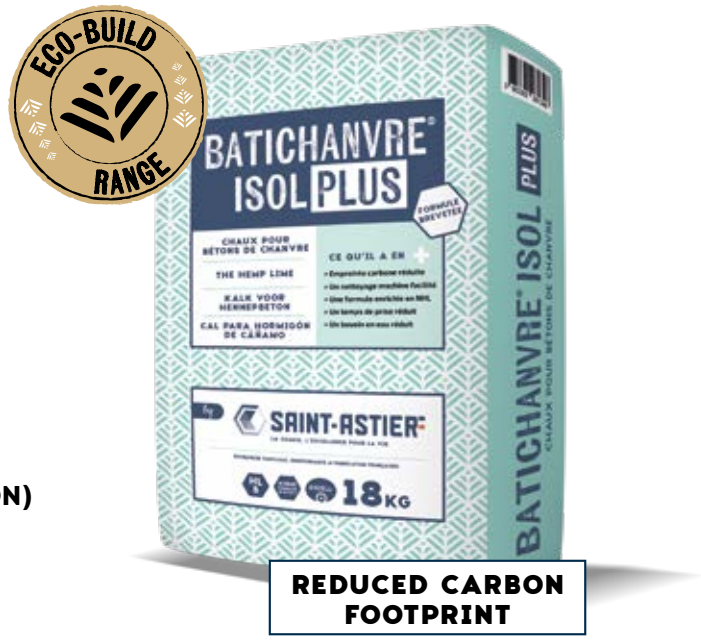
TECHNICAL DATA SHEET

BATICHANVRE® ISOL PLUS

LIME FOR HEMP CONCRETE



REDUCED CARBON FOOTPRINT

THE + BENEFITS

- + THERMAL & ACOUSTIC INSULATION
- + EXCELLENT FIRE PERFORMANCE
- + VAPOUR PERMEABLE
- + SUMMER COMFORT (HUMIDITY REGULATION)
- + ASSURED AIR QUALITY

ADDITIONAL ADVANTAGES

> **Reduced carbon footprint**
> **Quick setting**
> **Easier machine cleaning**
> **Formula enriched with NHL**
> **Patented formula** (N° EP2430679)
> **Lighter bag = 18 kg**
> **Higher thermal resistance**

AREAS OF USE

> Wall shuttering and timber frame structures
> Insulating concrete on upper floor levels
> Can be used with ISOCANNA® or « building hemp » certified

PACKAGING

18 kg bag - 40 bags per pallet (720 kg pallet)
Available in Big Bag (1.4T)

PRODUCT COMPOSITION

Patented formula composed mainly of Pure Natural Hydraulic Lime from Saint-Astier®.

SHELF LIFE AND GUARANTEE

9 months from the date of manufacture, if kept dry in its original unopened packaging. Liability of the manufacturer.

PRODUCT CONFORMITY

> The BATICHANVRE® ISOL PLUS / ISOCANNA® combination complies with the technical requirements defined by the Professional Rules and is validated by the CenC association (Construire en chanvre).

> For certificates of validated combinations with BATICHANVRE® ISOL PLUS, please contact our Technical Department : **technical_support@saint-astier.com**

CONSTRUIRE EN CHANVRE

by SAINT-ASTIER
LIME, LIFELONG EXCELLENCE

18 KG | HL 5 | LIME STANDARD NF EN 459-1 | VALIDATED COUPLE CenC | PATENTED FORMULA

BATICHANVRE® ISOL PLUS

MANUAL / MACHINES consult us

FOR SHUTTERED WALLS, INTERIOR PARTITION APPLICATIONS AND TIMBER FRAMED WALLS

TABLE OF THERMAL RESISTANCES AND PHASE SHIFTING				
Thickness	15 cm	25 cm	35 cm	45 cm
R (Thermal Resistance) in m².K.W-1	2.34	3.91	5.47	7.04
Phase shift (hours)	8.7	14.4	22.5	28.3

TECHNICAL DATA			
Density (kg./m³)	Thermal conductivity (λ) W.m-1.K-1	μ**	Fire reaction
300 to 350	0.064	4.5 à 10	B-s1, d0

MECHANICAL PROJECTION

1 1 + 1 + 50/60

2 bags of BATICHANVRE® ISOL PLUS 18 kg + 1 bale of ISOCANNA® hemp 20 kg + Litres water

MANUAL APPLICATION

The concrete should be used within 30 minutes of mixing.

1 1 + 1 + 60/70

2 bags of BATICHANVRE® ISOL PLUS 18 kg + 1 bale of ISOCANNA® hemp 20 kg + Litres water

HEMP FLOORS ON WOODEN BOARDS

TABLE OF THERMAL RESISTANCES AND PHASE SHIFTS*				
Thickness	15 cm	20 cm	25 cm	30 cm
R (Thermal Resistance) in m².K.W-1	2.34	3.12	3.91	4.68
Phase shift (hours)	8.7	11.5	14.4	17.3

TECHNICAL DATA		
Density (kg./m³)	Thermal conductivity (λ) W.m-1.K-1	Fire reaction
300 to 350	0.064	B_{fl}-s1

1 1 + 1 + 60/70

2 bags of BATICHANVRE® ISOL PLUS 18 kg + 1 bale of ISOCANNA® hemp 20 kg + Litres water

UNDER-ROOF INSULATION (LOFT INSULATION MORTAR)

TABLE OF THERMAL RESISTANCES AND PHASE SHIFTING							
Thickness	20 cm	25 cm	30 cm	35 cm	40 cm	45 cm	50 cm
R (Thermal Resistance) in m².K.W-1	4.08	5.10	6.12	7.14	8.16	9.18	10.20
Phase shift (hours)	10.7	13.4	16	18.7	21.4	24.1	26.7

TECHNICAL DATA		
Density (kg./m³)	Thermal conductivity (λ) W.m-1.K-1	Fire reaction
200 to 220	**0.049**	**B-s1,d0**

1 + 1 + 40/50

1 bag of BATICHANVRE® ISOL PLUS 18 kg + 1 bale of ISOCANNA® hemp 20 kg + Litres water

** Thermal inertia is the ability of a material to store heat and then release it. It provides a thermal phase shift (the time lag and attenuation of an outside temperature, for example).*
The values presented in the tables below are taken from the calculated and measured characteristics of our hemp concrete formulations.
They are expressed in hours over a reference period of 24 hours.
*** The coefficient of resistance to water vapour diffusion (μ).*

PREPARATION OF MIXES

Manual application :

> Place the water and BATICHANVRE® ISOL PLUS in a concrete mixer and leave to mix for 3 to 5 minutes (milk obtained must be homogeneous and lump-free) then add the decompressed hemp and leave to mix to obtain a homogeneous mixture with a crumb-like consistency.

> Stop the mixer once the desired consistency is achieved. **Apply the product within 30 minutes of mixing**.

Machine application :

> Mechanical application possible with dedicated machines : please consult us.

PRODUCT PERFORMANCE / TECHNICAL SPECIFICATIONS

FDES VÉRIFIÉE Inies

> **Lambda measured by an external COFRAC accredited laboratory.**

> Carbon footprint (see ESDS).

> For futher information consult our documentation.

> LIFE CYCLE (LCA) available on the **Inies database**.

SAINT-ASTIER
LIME, LIFELONG EXCELLENCE

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