



Cavac Biomatériaux :

*A complete hemp chain
“from field to site”, unique in Europe*

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CAVAC BIOMATERIAUX
08/06/2021

Bioeconomy Working Group
Bio-based materials for sustainable built environments

The background of the slide features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic visual effect.

I. Who are we ?

II. Our activities

III. Cavac Biomatériaux in 2021 : Key data

IV. Focus on the building market : Biofib' solutions

V. Tomorrow's challenges

Who are we ?



- A french company created in 2009
- Specialised in the manufacture of innovative bio-based materials
- Part of CAVAC group : Agricultural cooperative (Pays-de-la-Loire Region, West of France)
 - 10 000 farmers
 - 1650 employees
 - Turnover : 1 billion €
 - 130 CAVAC sites in Vendée



CAVAC Biomatériaux :
A complete hemp chain
“from field to site”, unique in Europe

Who are we ?

- Hemp and flax cultivator
- Transformator : Decortication of hemp and flax straw (fibres extraction)
- Manufacturer of bio-based insulation panels
- Producer of calibrated vegetal flours for plasturgy/composite applications
- A major player in bio-based materials research



Cavac farmers grow hemp within a radius of 150 km around CAVAC Biomateriaux transformation site

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biofib
isolation

Who are we ?

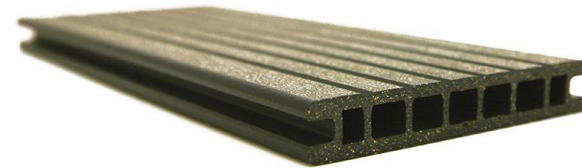
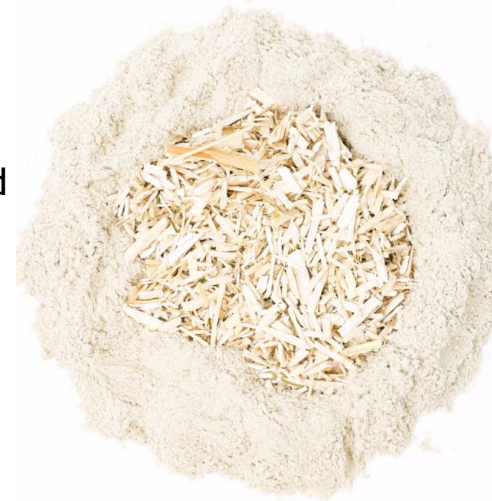
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MICRONISATION

Micronised and calibrated
vegetal flour
250 µm

Applications :
Compound/plasturgy



Who are we ?

Cavac Biomatériaux movie : « from field to site »

<https://www.youtube.com/watch?v=5DfL0D4zY5Q&t=5s>



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ISO BIO (2015-2019) : Development of novel biobased materials for low carbon construction

This project has received funding from EU's Horizon 2020 research and innovation programme under grant agreement n° 636835

Who are we ?



Cavac contribution :

From lab scale ...



Scale up on industrial or pilot production plant...



To building scale ...



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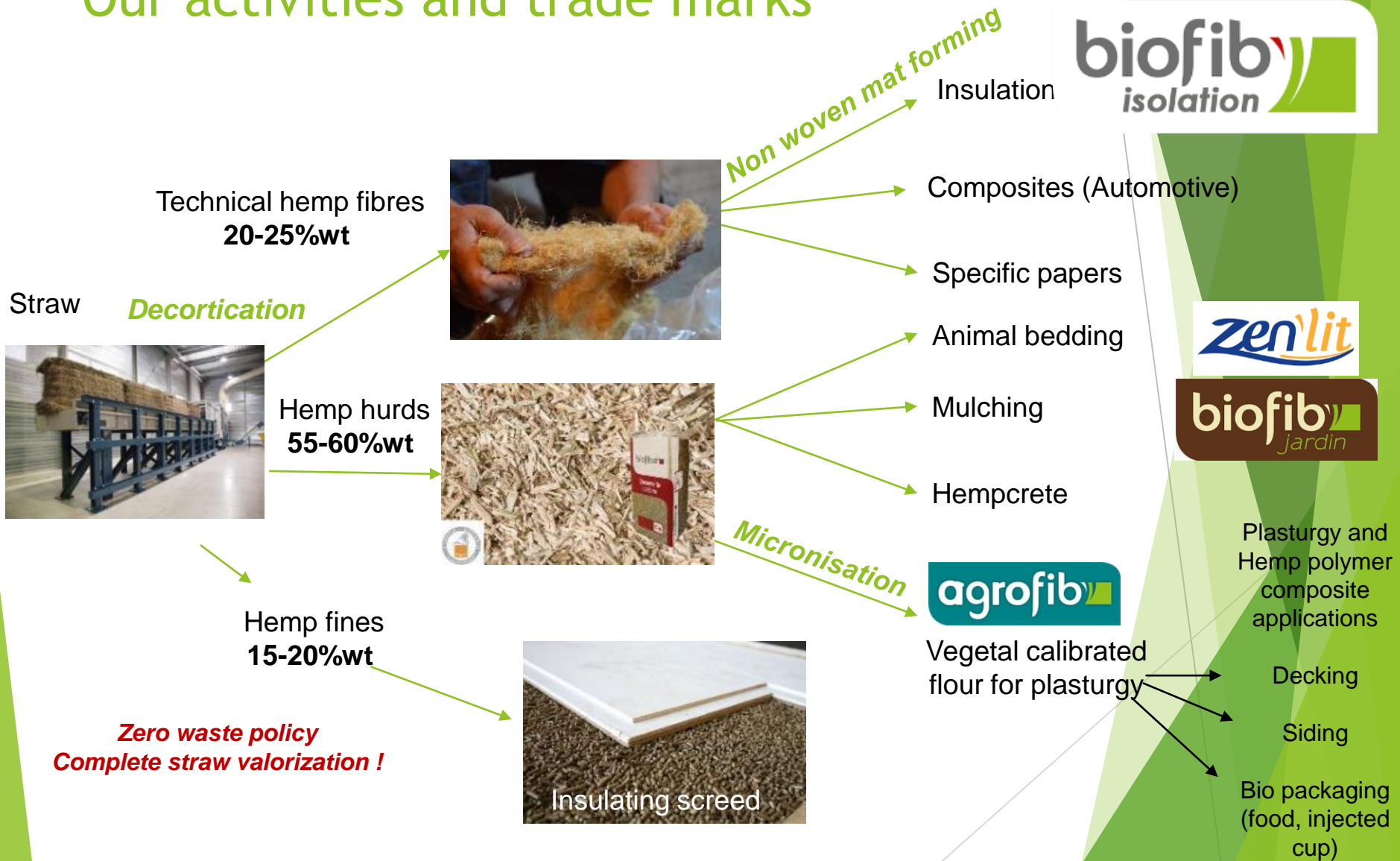
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Our activities and trade marks



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Cavac Biomatériaux in 2021 : Key data

- 2000 ha of hemp
- 2000 ha of flax
- 150 producers of hemp
- 150 producers of flax
- 20 000 T of straw processed



Cavac Biomatériaux in 2021 : Key data

- 3 fully automated production lines
- 2500 m² of production area
- 1 500 000 m² of insulation product per year
- 10 000 m² of storage area
- A laboratory for quality controls
- A R&D department
- 50 collaborators
- 3 sale teams



Cavac Biomatériaux in 2021 : Key data

- In 2019 : After 10 years of hemp insulation, Cavac Biomatériaux has received the first price of the bioeconomy from the french Ministry of Agriculture.



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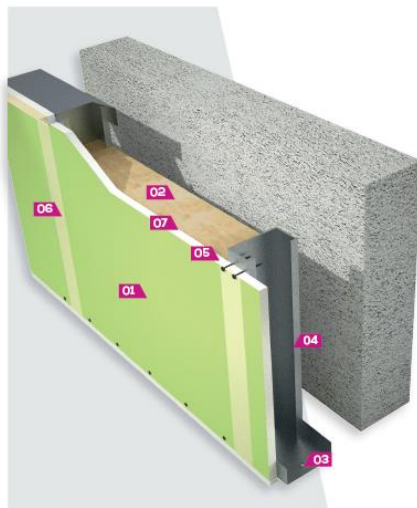
A trusted insulation solution

All the french certifications even for the most stringent buildings : Schools, theaters, high capacity buildings etc.



More than 300 systems validated (gypsum board + Biofib flexible panels) : Fire and acoustic tests

CONTRE-CLOISON
PLAQUE **PRÉGYROC AIR BA18 S**
& ISOLATION **BIOFIB' TRIO**



- 01 PRÉGYROC AIR BA18 S
- 02 ISOLANT BIOFIB' TRIO
- 03 RAIL PRÉSYMÉTAL
- 04 MONTANT PRÉGYMÉTAL
- 05 VIS PRÉGY
- 06 TRAITEMENT DE JOINT BANDE ET ENDUIT PRÉGY
- 07 PARE VAPEUR (Sd MINIMUM 18 MÈTRES)

UN ARTISAN BIOFIB'
EST UN ARTISAN
HEUREUX



VOUS AUSSI
REJOIGNEZ LE CLUB !



Biofib' is the most known solution for biobased insulation of buildings in France !

LES SOLUTIONS BIOFIB

MUR (ITI) R=3,7

biofib
trio 145 mm
biofib
control

MUR (ITE) FAÇADE VENTILÉE R=3,7

biofib
trio 120 mm
PARE-PLUIE RIGIDE

PLANCHER BOIS SUR VIDE SANITAIRE R=6,0

biofib
control 240 mm (2 couches)
biofib
chanvre

TOITURE (ITE + ITI)

PARE-PLUIE RIGIDE

80 mm

200 mm

biofib
trio
biofib
control

COMBLES PERDUS R de 4 à 7,55

265 à 500 mm

jetfib
ouate
biofib
control

PLANCHER ACOUSTIQUE

R_w jusqu'à 57 dB
L_{n,w} jusqu'à 43 dB

16 mm

45 - 60 - 100 mm

biofib
acoustix
biofib
ouate

CLOISON ACOUSTIQUE

R_w = 47 dB (Cloison simple)
69 dB (Cloison double)

45 ou 60 mm

biofib
ouate

Example of a building retrofit with



Building retrofit

KTR France Headquarter

- Projet owner : KTR France
- Dardilly (69)

Biofib products :

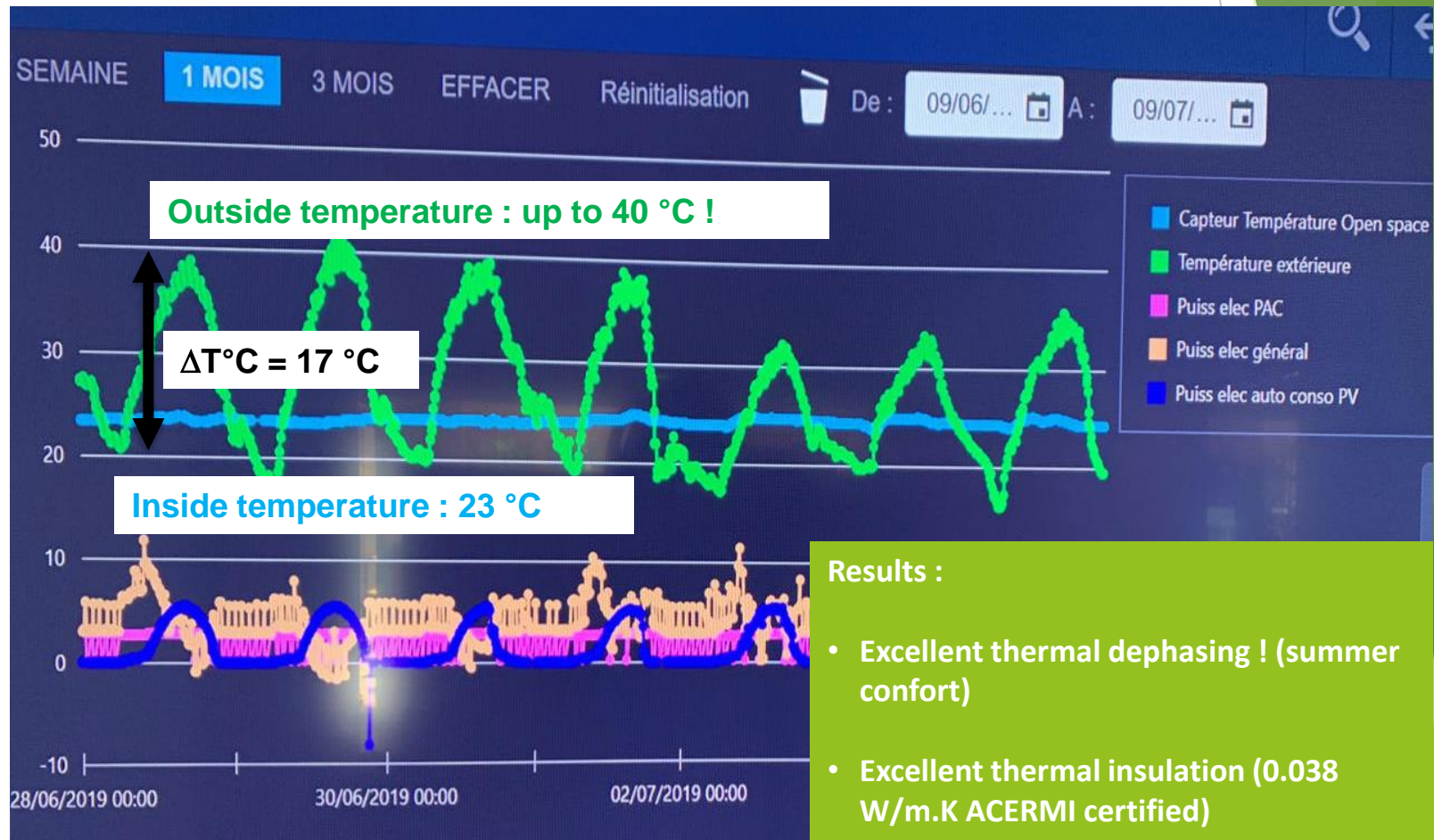
- External insulation
- Internal insulation
- Ceiling



Example of a building retrofit with



Summer 2019 heat wave recording :



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Tomorrow's challenges

► Bio-based packaging

- Bio-based polymer : PLA, PHA, BioPE
- Hemp calibrated flours and other technical resources (miscanthus, corn cob etc.)

► Natural fibers composites (injection, molding, thermoformed non woven etc.)

- High specific strength composites
- Acoustical applications
- WPC
- Automotive industry

► Bio-based building materials

- Lightweight insulating natural building blocks
- Flexible insulation product from recycled or biobased resources
- Load bearing panels

► Hemp textiles

- For open end machinery
- Cottonized fibers
- Textile recycling

► Specific paper and non woven

- Hygiene and care
- Fiduciary applications

CAVAC Biomateriaux is your ideal partner for HEurope projects !





Thank you ! Any questions ?

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