



## Thermal Insulation

# Natur-Chanv/Hemp in mattress

Technical Sheet

### CHARACTERISTICS

Thermal and acoustic insulation in hemp fiber mattress.

### MAIN USES

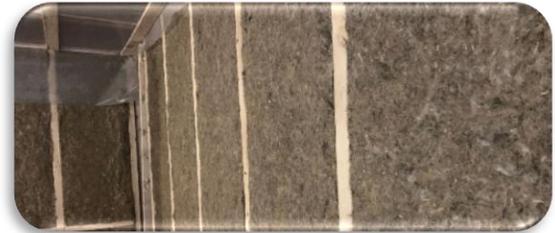
Preformed and flexible vegetal mattress designed to be inserted by friction between wooden or steel frames. It is offered in panel thickness of: 2" (R-8), 3,5" (R-13), 5,5" (R-20), 7,5" (R-28). Other dimensions on request.

### PERFORMANCE CRITERIA

- Excellent thermal resistance value (R-value) of 3.7 per inch
- Thermal efficiency, air quality and acoustic comfort
- Hygrothermal behavior, a real competitive advantage in bio-based materials by its ability to retain and release moisture without loss of efficiency  
Limits condensation. Less humidity = less daily heating
- More efficient phase shift (the greater the heat retention of the insulation is, the longer the phase shift time will be and the longer the room will kept cool. Insulation phase shift Nature fibres = 10 hours in 190 mm (7.5"))
- Humidity management; hemp fibers have better resistance and a favorable behavior face to humidity
- Mechanical strength without sagging or settling during installation without thermal point between wood and steel frames
- Natural repellent for a habitat preserved from moths, termites, insects and rodents

### ENVIRONMENTAL CRITERIA

- 100% natural plant fibers, non-allergenic and without VOC emissions
- Low energy of 30 kWh/m<sup>3</sup> for a less harmful environment
- Reduction of greenhouse gases (GHGs)
- Biobased material contributing significantly to the storage of atmospheric carbon (CO<sub>2</sub>) and to the sanitation of building
- Reduction of building's environmental footprint
- Product life cycle analysis (LCA) available
- Recoverable, recyclable, compostable biobased material
- Access to the Environmental Product Declaration (DEP)
- For ecological and eco-responsible use



### STANDARDS REFERENCES

|              |   |
|--------------|---|
| CAN/ULCS-129 | Standard method of test for smoulder resistance of insulation |
| CAN/ULC-S702 | Standard for mineral fibre thermal insulation for buildings   |
| CAN/ULS-S703 | Standard for cellulose fibre insulation for buildings         |

- The certified performance of Nature fibres's insulation is in process of being recognized by official bodies, like the CCMC. As such, certification and Technical Assessments are real guarantees of the thermal and acoustic performance of our insulators.

### PERFORMANCE

|             |   |
|-------------|---|
| S129-2015   | Standard method of test for smoulder resistance of insulation (basket method) : Lost of mass : 1n59%<br>Corrosiveness : Aluminium (√), Copper (√), Steel (x)<br>Water vapor absorption : 6,3%<br>Flammability : CRF (W/cm <sup>2</sup> ) 0,06<br>Permanence of flammability : CRF (W/cm <sup>2</sup> ) 0,06<br>Volumetric mass : 35 kg/m <sup>3</sup> ±3,5<br>Water vapor transmission: it's not a vapor barrier<br>Thermal property (R value) : 3,7/inch<br>Microbiological resistance to fungi: conclusive<br>Surface combustion characteristics : flammable<br>Flame retardant assessment (2-foot tunnel method):<br>Class A or 1) |
| S703 6.3.2  |   |
| S703 6.3.8  |   |
| S703 6.3.9  |   |
| S703 6.3.10 |   |
| S702 6.2.2  |   |
| ASTM E96    |   |
| ASTM C518   |   |
| ASTM C1338  |   |
| ASTM E84    |   |
| ASTM D3806  |   |

### DELIVERY AND STORAGE

Products delivered in their original packaging and stored in a closed place.

### SÉCURITÉ

It is recommended that the person doing the installation wear a dust mask and eyes protection.

### INSTALLATION

The insulation must be installed in accordance with the installation instructions in the manufacturer's "Installation manual and guide".

### RESPONSABILITY

The information described in this form is established to help select the right insulation board for your use. It is user's responsibility to determine if the product meets their needs. In the event of justified complaints, only the product is subject to replacement.

### TECHNICAL SERVICES

For all technical questions in North America, please contact our representative at 819 716°0141