

# INSULATING MATERIAL

## CANAFIBER INTERCAPEDINE

### DESCRIPTION

**CANAFIBER INTERCAPEDINE** is a high quality insulating material made with industrial hemp fibers. A natural and sustainable product with exceptional insulating properties. The unique characteristics of hemp fiber in terms of thermal insulation, humidity regulation and noise reduction contribute in a distinctive way to a healthy and sustainable living environment: the natural comfort.

|                                |                                                                                                                                                                                                                 |            |            |            |            |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|
| Thickness - mm                 | 40                                                                                                                                                                                                              | 60         | 80         | 100        | 120        |
| Density - kg/m3                | 30                                                                                                                                                                                                              | 30         | 30         | 30         | 30         |
| Thermal Conductivity - W/mk    | LAMBDA $\lambda$                                                                                                                                                                                                | 0,04       | 0,04       | 0,04       | 0,04       |
| Thermal Transmittance - W/m2K  | U                                                                                                                                                                                                               | 0,855      | 0,599      | 0,461      | 0,375      |
| Vapour permeability - $\mu$    | 1,2                                                                                                                                                                                                             | 1,2        | 1,2        | 1,2        | 1,2        |
| Airflow resistance - kPa.s/m2  | $\geq 2,0$                                                                                                                                                                                                      | $\geq 2,0$ | $\geq 2,0$ | $\geq 2,0$ | $\geq 2,0$ |
| Specific heat capacity - J/KgK | 1700                                                                                                                                                                                                            | 1700       | 1700       | 1700       | 1700       |
| Reaction to fire - Euroclasse  | E                                                                                                                                                                                                               | E          | E          | E          | E          |
| Operating temperature          | -40°C / +100°C                                                                                                                                                                                                  |            |            |            |            |
| Carbon Footprint               | 0,138 kg CO <sub>2</sub> eq. (GWP)<br>Net of CO <sub>2</sub> sequestered during the cultivation of hemp. Data calculated on 1kg of product.<br>System boundaries : from cradle to grave, phase of use excluded. |            |            |            |            |

### USE AND APPLICATIONS

**CANAFIBER INTERCAPEDINE** is the ideal product for thermo-acoustic insulation of roofs, walls and floors for both new buildings and renovations. **CANAFIBER INTERCAPEDINE** is the natural alternative to insulating materials of mineral and synthetic origin. It is compatible with any type of structure, from traditional concrete systems to more innovative ones such as steel or wood. The unique qualities of **CANAFIBER INTERCAPEDINE** are enhanced when used in combination with breathable and vapour permeable solutions such as **Bio Beton®** and **Biomattone®** of hemp and lime.

| Thickness (mm) | Size (mm) | Panels / package | m <sup>2</sup> / package | m <sup>3</sup> / package | Package / Pallet | m <sup>2</sup> / Pallet | m <sup>3</sup> / Pallet |
|----------------|-----------|------------------|--------------------------|--------------------------|------------------|-------------------------|-------------------------|
| 40             | 1100x600  | 12               | 7,92                     | 0,3168                   | 10               | 79,2                    | 3,168                   |
| 60             | 1100x600  | 8                | 5,28                     | 0,3168                   | 10               | 52,8                    | 3,168                   |
| 80             | 1100x600  | 6                | 3,96                     | 0,3168                   | 10               | 39,6                    | 3,168                   |
| 100            | 1100x600  | 5                | 3,3                      | 0,33                     | 10               | 33                      | 3,3                     |
| 120            | 1100x600  | 4                | 2,64                     | 0,3168                   | 10               | 26,4                    | 3,168                   |

### INDUSTRIAL HEMP FIBER

- Unique thermal phase shift thanks to the high capacity to accumulate energy
- Endless life cycle
- It absorbs up to 20% of its weight in water vapour and self-regulates extraction and release
- Free of protein substances and unappetising to insects and rodents
- Energy consumption reduced by 90% compared to alternative synthetic and mineral insulation products
- It sequesters CO<sub>2</sub> during growth and contributes to the fight against climate change
- An excellent example of a circular economy

The annual cycle of industrial hemp fiber makes it a renewable non-toxic resource of high quality. The insulating materials in hemp fiber enjoy very high durability. They represent the ideal solution to create healthy and comfortable living spaces with an environmental impact reduced to a minimum.

### DID YOU KNOW THAT...

- One hectare of agricultural land planted with hemp produces 9 tons of biomass per year which means, four times the production of one hectare of forest
- One hectare of hemp fiber sequesters 15 tons of CO<sub>2</sub> every time it is harvested
- The cultivation of industrial hemp doesn't need pesticides and enriches the soil

### WHY CANAFIBER?

**CANAFIBER INTERCAPEDINE** is able to absorb noise, regulate humidity, prevent the appearance of condensation and mould and reduce internal temperature fluctuations. The panels are simple and pleasant to use and totally free of dangerous substances that can cause irritation of the skin and respiratory tract.