

# Thermal Insulation



Product: **HempWool**



## Characteristics

Thermal and acoustic insulation consisting of hemp fiber and a bonding fiber.

## Primary Uses

Pre-formed and flexible plant based panels 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.

## Delivery and Storage

Panels are shrink wrapped and pallet wrapped in a biodegradable plastic film, delivered in their original packaging, and stored in a dry, enclosed location.

## Performance

- Excellent thermal resistance value (R-value) of 3.7 per inch
- Thermal efficiency, air quality and acoustic comfort
- Hygrothermal behavior: a competitive advantage in bio-based materials thanks to its ability to retain and release moisture without loss of efficiency
- Limits condensation. Less humidity = less daily heating
- More efficient phase shift regulation: 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. HempWool Insulation phase shift = 10 hours in 7.5"
- Humidity management: hemp fibers have a high resistance and favorable interaction to humidity
- Dimensional stability: HempWool has a high mechanical strength which means no sagging or settling during or after installation when installed between wood and steel frames
- Naturally resistant to moths, termites, insects and rodents

## Safety

It is recommended that the person doing the installation wear a dust mask and eye protection. HempWool is safe to touch and handle, causing no skin irritation. Always follow OSHA guidelines when working with insulation.

## Responsibility

The information described in this guide is established to help select the right insulation product for your use. It is user's responsibility to determine if the product meets their needs, and is subject to local code compliance.

## Certifications

USDA Biobased HempWool is a USDA Certified Biobased Material, with 90% organic carbon content

ASTM Testing HempWool is tested against various ASTM Standards, see our Technical Data Sheet

ICC-ES HempWool is currently being evaluated for International Code Compliance (2023)

The certified performance of Hempitecture's HempWool insulation is in the process of being recognized by official bodies, like the ICC. As such, certification and Technical Assessments are real guarantees of the thermal and acoustic performance of our insulators. Consult our Technical Data Sheet for more information



## Environmental

- 90% natural plant fibers, non-allergenic, and containing no VOC's
- 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>)
- Reduction of building's environmental footprint through embodied carbon storage
- Product life cycle analysis (LCA) available in 2023
- Recoverable, recyclable, compostable biobased material
- USDA Certified Biobased Material

## Installation

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

## Technical Services

For all technical questions in North America, please contact our representative at [sales@hempitecture.com](mailto:sales@hempitecture.com)