hempitecture®

TRULY SUSTAINABLE
BUILDING MATERIALS
**FOR PEOPLE & PLANET**

421 E 500 S. #100 JEROME, ID

HEMPITECTURE.COM

# Pioneering biobased insulation manufactured from industrial hemp and natural fibers.

CHANGING THE WAY WE EXPERIENCE INSULATION

# WHOLE BUILDING SOLUTIONS


We produce healthier and more sustainable alternatives to conventional toxic thermal insulation. Hempitecture manufactures building materials that significantly reduce embodied carbon in the built environment by using **rapidly renewable plant-based feedstocks that are carbon capturing**, and restore rural agriculture at scale.

### PEOPLE HEALTH

Our products contain no formaldehyde, glass fibers, asbestos, CFCs, HFC, or HCFCs

### PLANET HEALTH

Products made from carbon-sequestering, rapidly renewable feedstock.

### HIGH PERFORMANCE

R-3.7/in with high dimensional stability, no-itch and easy to install.

Since 2013, we've manufactured the most sustainable building materials on the planet. We are creating a tangible future where natural, non-toxic building materials like HempWool become the industry standard. We believe by producing natural building materials, we can significantly decarbonize built environments. In doing so we help create healthier buildings, happier people, and a healthier planet.

# WHY HEMP

**HEMP SEQUESTERS ~9 TONS OF CO2 DURING JUST ONE GROWING SEASON.**

CARBON-CAPTURING

RAPIDLY RENEWABLE

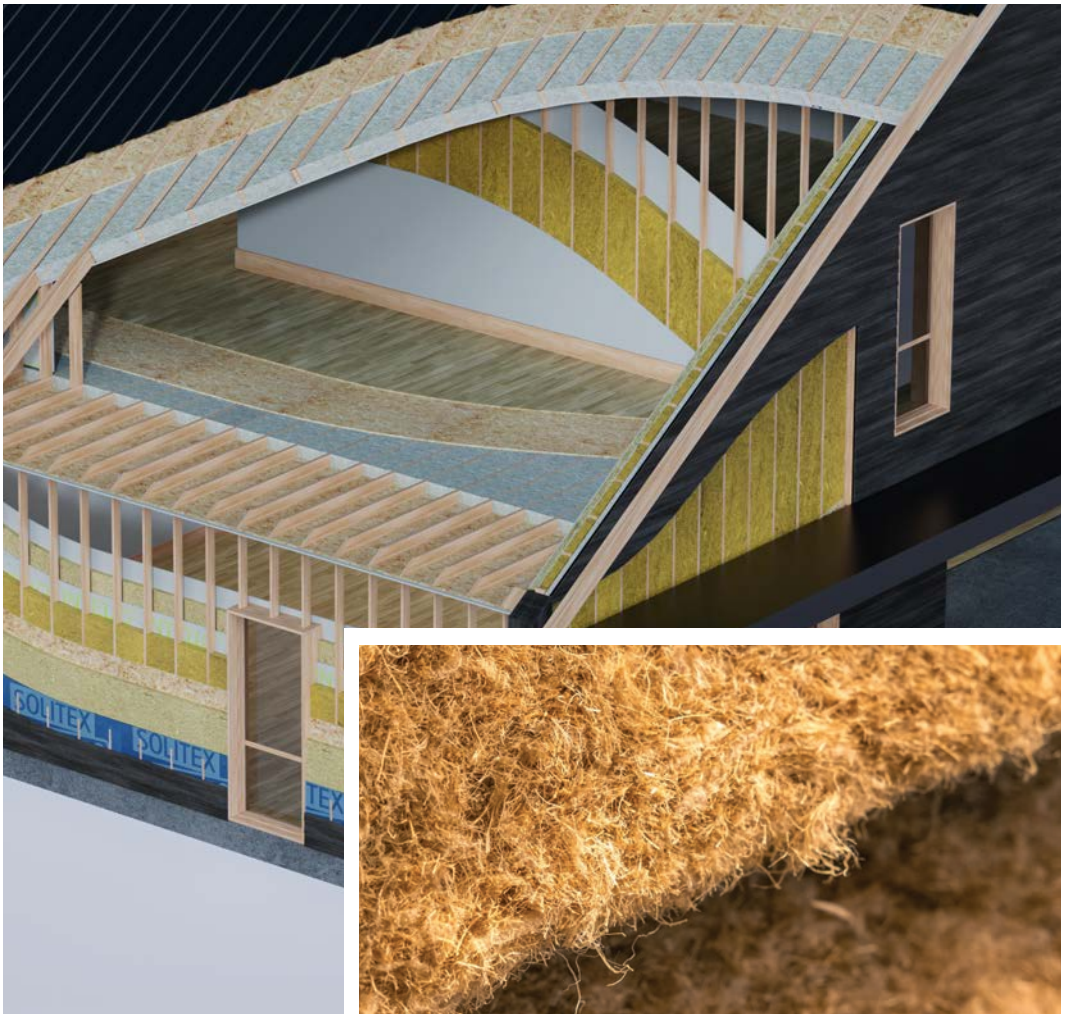
HIGH PERFORMING

SOIL-REGENERATING

LITTLE WATER TO FARM

NO PESTICIDES

RESTORATIVE






**R3.7**
/inch

HempWool fiber batt insulation for wood and metal framing systems. Friction-fit design ensures the insulation will not slump or sag in the cavity. VOC free, nontoxic, & treated with natural fire retardant.

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**Use anywhere in your thermal envelope, including walls, floors, ceilings, attics, and partition walls.**

**PlantPanel X**
EXTERIOR RIGID BOARD

**PlantPanel I**
INTERIOR RIGID BOARD

**HempWool**
LOW DENSITY BATT

**PlantPanel X**
A rigid continuous thermo-acoustic insulation panel designed for ***exterior*** use.

**PlantPanel I**
A rigid continuous thermo-acoustic insulation panel designed for ***interior*** use.

**HempWool**
A natural fiber thermal insulation comparable to commonly used products.

**NON-TOXIC | NO VOCs | ITCH-FREE | EASY TO INSTALL**

hpd VERSION 2.0

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 89%

U.S. GREEN BUILDING COUNCIL

## HempWool+

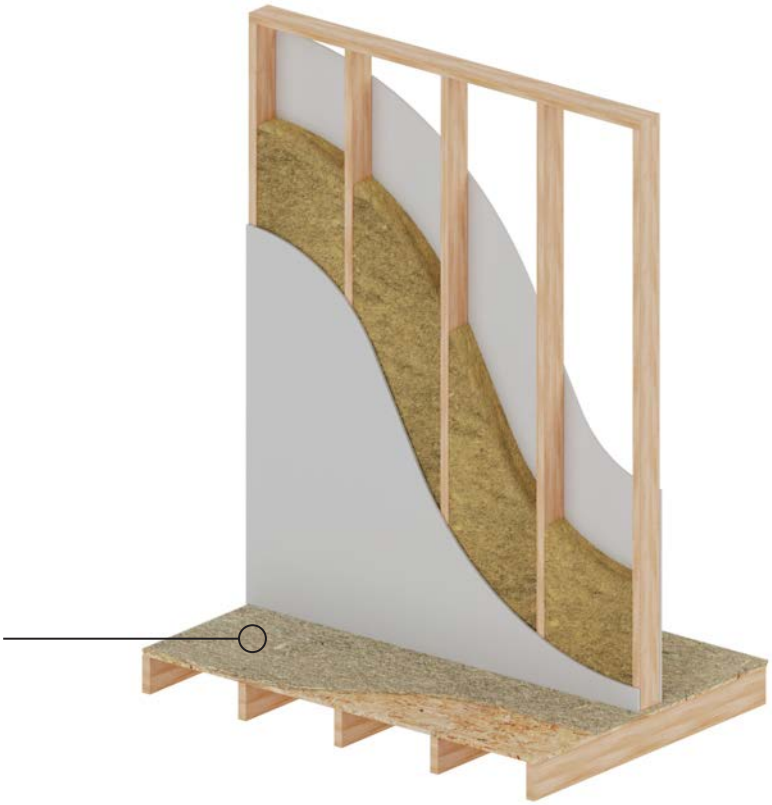
*HIGH DENSITY BATT*

An enhanced natural fiber insulation with additional thermal storage capacities.

## FiberPad

*UNDERLAYMENT*

Unlike carpet padding made from petroleum-based urethane, synthetic latex or questionable post consumer content, FiberPad is made from an engineered blend of decorticated hemp and functional fibers. This combination leads to a reduced carbon footprint, but with rebound that deadens sound and improves thermal comfort.



HempWool

PlantPanel X

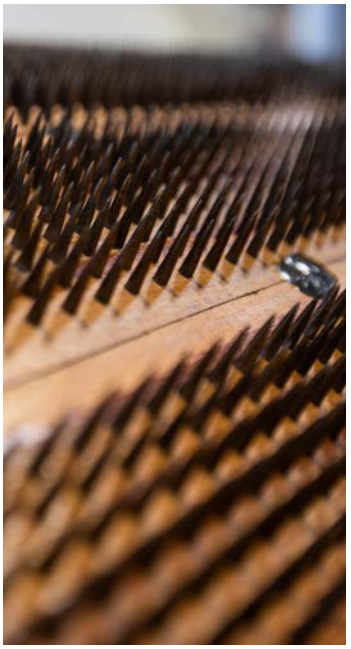
FiberPad

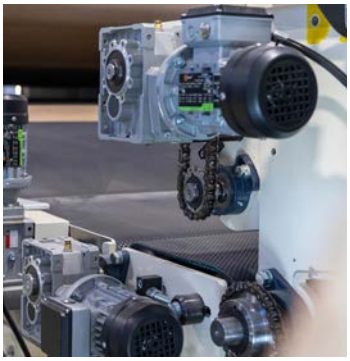
PlantPanel I

HEMPBINDER

HempWool+

MADE IN IDAHO






CARBON NEGATIVE BUILDING MATERIALS PRODUCED IN A FACILITY POWERED BY 100% RENEWABLE ENERGY.

# CONTRACTOR FEEDBACK

## LORENZO M.

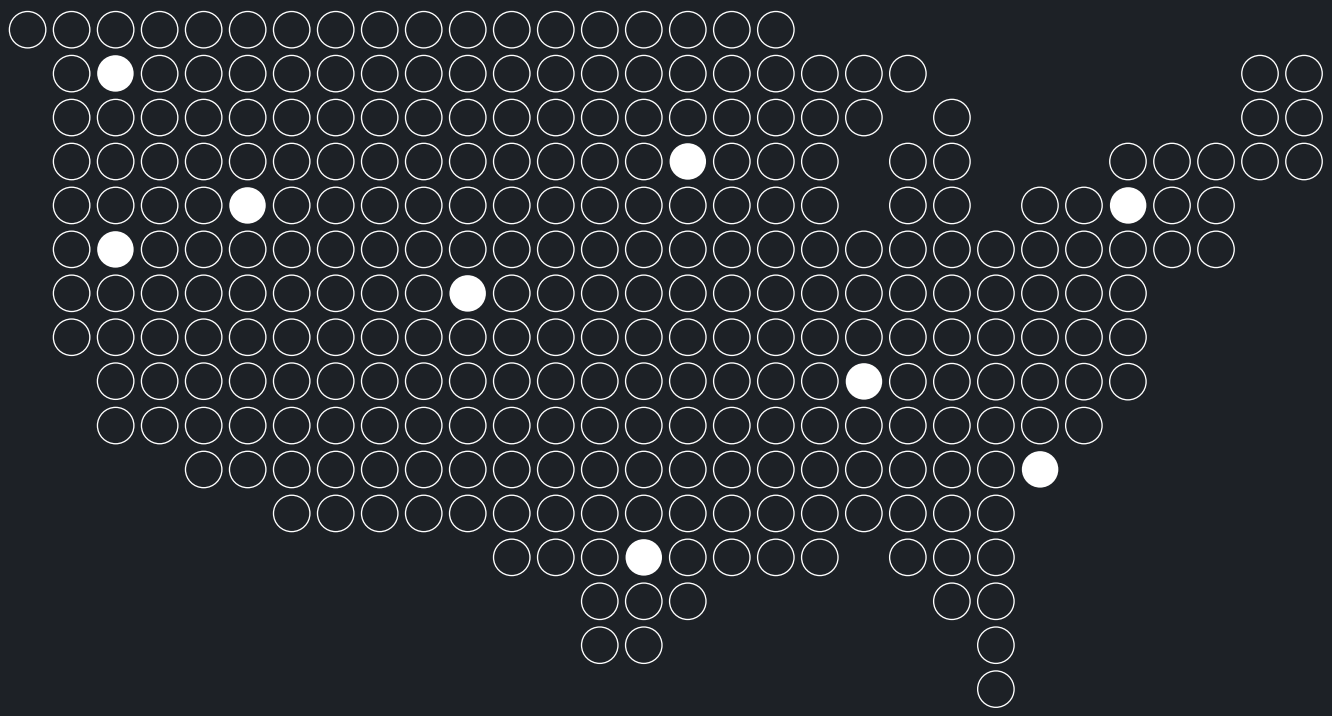
*This is the best insulation material i have ever worked with! I have been building for 25 years, and Hempitecture's HempWool batts perform better than fiberglass and rock wool in every way.*

## DAVE B.

*We used HempWool to replace 50-year old fiberglass in the walls. It can be handled with no concerns of hard. Cutting and installing is easy. Fun being a part of of the future of insulation.*

## DANE W.

*The installation of HempWool is dampening the noise of the street it abuts, and has created the exact, contemplative environment we intended to create. We can't speak highly enough of this product and strongly recommend it.*



## WAREHOUSES

**Jerome,** ID
**Lumberton,** NC
**Fife,** WA
**Loveland,** CO
**McCloud,** CA
**Seneca,** NY
**Taylor,** TX
**Murray,** KY
**Waconia,** MN
**Victor,** NY

# *HIGH PERFORMANCE LOW-CARBON CONSTRUCTION*

# HempWool

## STANDARD BATT

### 2" R7
Available in 16" and 24" OC

**$0.89** SqFt
**$626.56** Pallet
**704** Total SqFt/Pallet

### 3.5" R13
Available in 16" and 24" OC

**$1.25** SqFt
**$500** Pallet
**400** Total SqFt/Pallet

### 5.5" R20
Available in 16" and 24" OC

**$1.75** SqFt
**$448** Pallet
**256** Total SqFt/Pallet

### 7.5" R28
Available in 16" and 24" OC

**$2.45** SqFt
**$470.40** Pallet
**192** Total SqFt/Pallet

## LIGHT GAUGE STEEL BATT

### 2" R7
Available in 16" and 24" OC

**$0.94** SqFt
**$661.76** Pallet
**704** Total SqFt/Pallet

### 3.5" R13
Available in 16" and 24" OC

**$1.30** SqFt
**$520** Pallet
**400** Total SqFt/Pallet

### 5.5" R20
Available in 16" and 24" OC

**$1.80** SqFt
**$460.80** Pallet
**256** Total SqFt/Pallet

### 7.5" R28
Available in 16" and 24" OC

**$2.50** SqFt
**$480** Pallet
**192** Total SqFt/Pallet

# FiberPad

## CARPET UNDERLAYMENT

### 3/8" R1.9
4' x 33.75' x 5/16"

**$0.40** SqFt
**$432** Pallet
**1080** Total SqFt/Pallet

# PlantPanel X

## EXT. CONTINUOUS BOARD

### 2" R6.5
2' X 4'

**$2.25** SqFt
**$1584** Pallet
**704** Total SqFt/Pallet

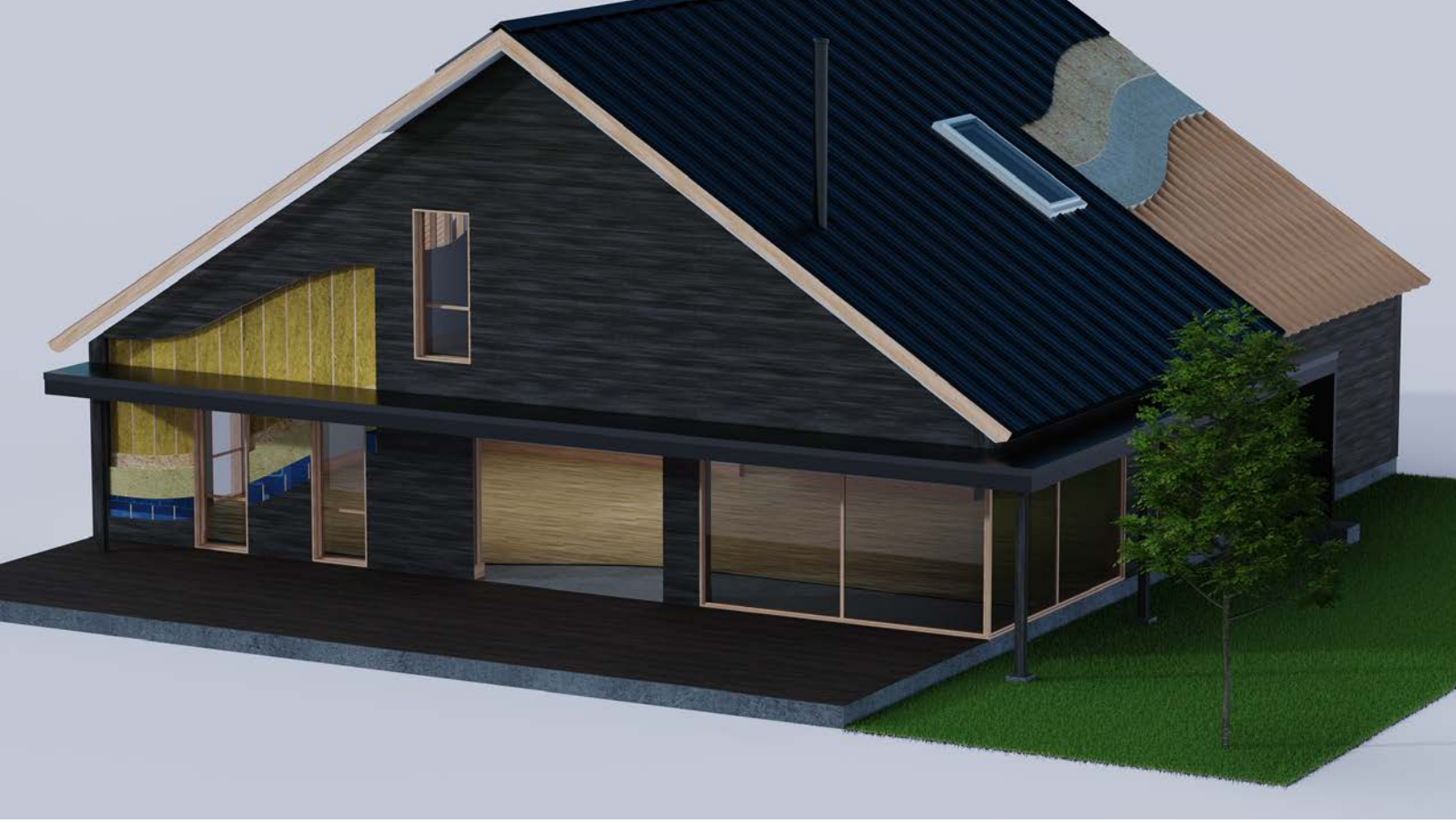
# PlantPanel I

## INT. CONTINUOUS BOARD

### 3/4" R2.4
2' X 4'

**$1.00** SqFt
**$1920** Pallet
**1920** Total SqFt/Pallet

**All materials sold by the full pallet only.**



## Incentives & Climate Action

**Inflation Reduction Act**
tax credits, grants, loan opportunities

**EnergyStar**
tax credits for energy efficiency

**Renew America's Nonprofits**
funding for mission-focused initiatives

**Better Buildings Initiatives**
energy reduction and cost saving

**Residential Efficiency**
tax credit

**Homes Act**
rebates for home efficiency

**DOE Electrification Program**
rebates on insulation

**Title 17: Clean Energy Financing**
Subsidized loans via LPO

**48C Manufacturing Tax Credits**
Transferable tax credits for climate tech investment

# HempWool

*LOW DENSITY BATT*

## PRODUCT DESCRIPTION

HempWool is a natural fiber thermal insulation made of 90% hemp fiber and 10% polymer fiber. At R3.69/in, the thermal resistance of HempWool insulation is comparable to commonly used insulation products. HempWool does not contain any VOCs and is non-toxic.

**CHARACTERISTICS**
Natural Fiber insulation used primarily for exterior walls, including floors, ceilings, and walls

**PRIMARY USE**
Pre-formed and flexible plant based insulation designed to be inserted by friction fit between wooden or steel frames. It is offered in panel thickness of: 2" (R-7), 3,5" (R-13), 5,5" (R-20), 7,5" (R-28). Other dimensions on request.

## TECHNICAL DATA

**ASTM C209**
Density of insulation - 2.81lbs/ft$^3$ / 45Kg/m$^3$

**ASTM C518**
Thermal Resistance - R3.69/in
Thermal Conductivity 0.040W/m.K

**ASTM E1354**
Vapor Permeability - 37 Perms / .647 ng/Pa.s.m$^2$

**ASTM E1321 - 13**
Ignition Time - 6.67 sec.
Average Heat Release Rate - 5.74 (Btu/s/ft$^2$)
Total Heat Release - 642.8 (Btu/s/ft$^2$)
Heat Release Maximum Rate - 10.98 (Btu/s/ft$^2$)
Total Smoke Release by Surface Unit - 217.26 (Btu/s/ft$^2$)

hpd VERSION 2.0

U.S. GREEN BUILDING COUNCIL

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 89%

Testing data obtained by our manufacturing partner for our imported HempWool® insulation. Our Idaho made HempWool® is made to the same specifications, but has not been independently tested. A new technical data sheet covering the results of our improved HempWool® formulation is pending. Please consult with your local building department to use the product that meets your local inspector's compliance threshold.

## ENVIRONMENTAL

- 90% natural plant fibers, non-allergenic and containing no VOC's
- Low embodied energy, utilizing energy efficient manufacturing
- Reduction of greenhouse gases (GHGs), currently being analyzed for an Environmental Product Declaration.
- Biobased material feedstock constributes to storage of GHG
- VOC and Red List Chemical Free
- Complete Product life cycle analysis (LCA) available in 2024
- Recoverable, recyclable, compostable biobased material

# PlantPanel X

*EXTERIOR RIGID BOARD*

## PRODUCT DESCRIPTION

PlantPanel X is a rigid continuous insulation material used in exterior above-ground applications. With an R Value of R3.25 per inch, PlantPanel adds to thermal and acoustic comfort and performance.

### CHARACTERISTICS

PlantPanel is an ideal material for exterior rigid insulation due to its ease of installation, dimensional stability, fire resistance, sustained R-value across diverse temperatures, and exceptional vapor permeability.

### PRIMARY USE

Engineered with a density to resist compression and deflection, PlantPanel is used in split-insulation wall and roof assemblies with either a rain screen cladding or roofing material, depending on the application. With 100% biobased and recycled content, PlantPanel is a sustainable, low carbon continuous insulation solution that's easy to install and safe to handle.

## TECHNICAL DATA

**ASTM C518**
Thermal Resistance @ 75 F - R3.25
Apparent Thermal Conductivity (Btu·in/ft²·h·°F) = .3154
Thermal Resistivity Per Inch (ft²·h·°F/Btu·in) = 3.17

**ASTM E84**
Flame Spread and Smoke Developed - Class B
Flame Spread Index = 40
Smoke Developed Index = 250

**ASTM C165**
Stress at 10% Displacement - 5.64 lb/in^2

**ASTM C303**
Specimen Mass (lb) = 1.2
Average Thickness (in) = 2.06
Specimen Density (lb/ft3) = 7.02

**ASTM C1338**
Fungi Resistance - Pass

**ASTM C1617**
Corrosion Mass Loss - Pass

**ASTM D2126**
Thermal and Humid Aging - Pass
After 168 hours of exposure to 158 F / 97% RH - 24% Deviation

**ASTM E96**
Water Vapor Transmission - 26 Perms / Pass

### ENVIRONMENTAL

- Treated with biobased fire retardants that are Red List ingredient free
- Low embodied energy due to rapidly renewable plant-based feedstock
- Reduction of greenhouse gases (GHGs); Currently being analyzed for an Environmental Product Declaration.
- VOC Free
- Recoverable, recyclable, compostable biobased material

# FiberPad
UNDERLAYMENT

## PRODUCT DESCRIPTION

FiberPad Carpet Underlayment is a natural fiber based, non-toxic carpet underlayment with a luxurious feel that doesn't compromise health or sustainability. Made of 80% natural fibers and designed with thermal and acoustic propeties in mind, FiberPad is the ideal choice for carpet underlayment when comfort is key.

### CHARACTERISTICS

Unlike carpet padding made from petroleum-based urethane, synthetic latex or questionable post consumer content, FiberPad is made from 80% hemp fiber and 20% engineered polyester. This fiber combination leads to not only a reduced carbon footprint, but also a resilient material with rebound that deadens sound and improves thermal comfort.

With tested thermal values at R1.873 for 1/2" of underlayment, FiberPad will contribute to increased thermal performance both in individual rooms as well as throughout the home through improved convection. The bulk density of FiberPad is engineered to absorb sound transmission on a variety of sub-strates. Treated with nontoxic, redlist free ingredients, the fire performance of FiberPad is improved.

### PRIMARY USE

FiberPad is a carpet underlayment material that is installed over a subfloor or substrate before the installation of carpet. It should be used for above grade applications and can be installed similarly to conventional carpet padding. Carpet trimmers or scissors are preferable to utility knifes due to the strength of the underlayment.

### SIZE

FiberPad is 1/2" thick and is sold on rolls.
Width = 4'
Length = 33.75"
Square feet = 135 SqFt

## TECHNICAL DATA

**ASTM C518**
Thermal Resistance @ 75 F - R1.873
Apparent Thermal Conductivity (Btu.in/ft².h.°F) = .03859
Thermal Resistivity Per Inch (ft².h.°F/Btu.in) = 3.74

**ASTM C303**
Specimen Mass (gsm) = 1320 / SqFt
Specimen Mass (lb/ft3) = 7
Average Thickness (in) = .501

**ASTM C1338**
Fungi Resistance - Pass

**FF 1-70**
Pill Test - Pass
*(The flammability was determined in accordance with Title 16 CFR Chapter II, Subchapter D, Part 1630)*

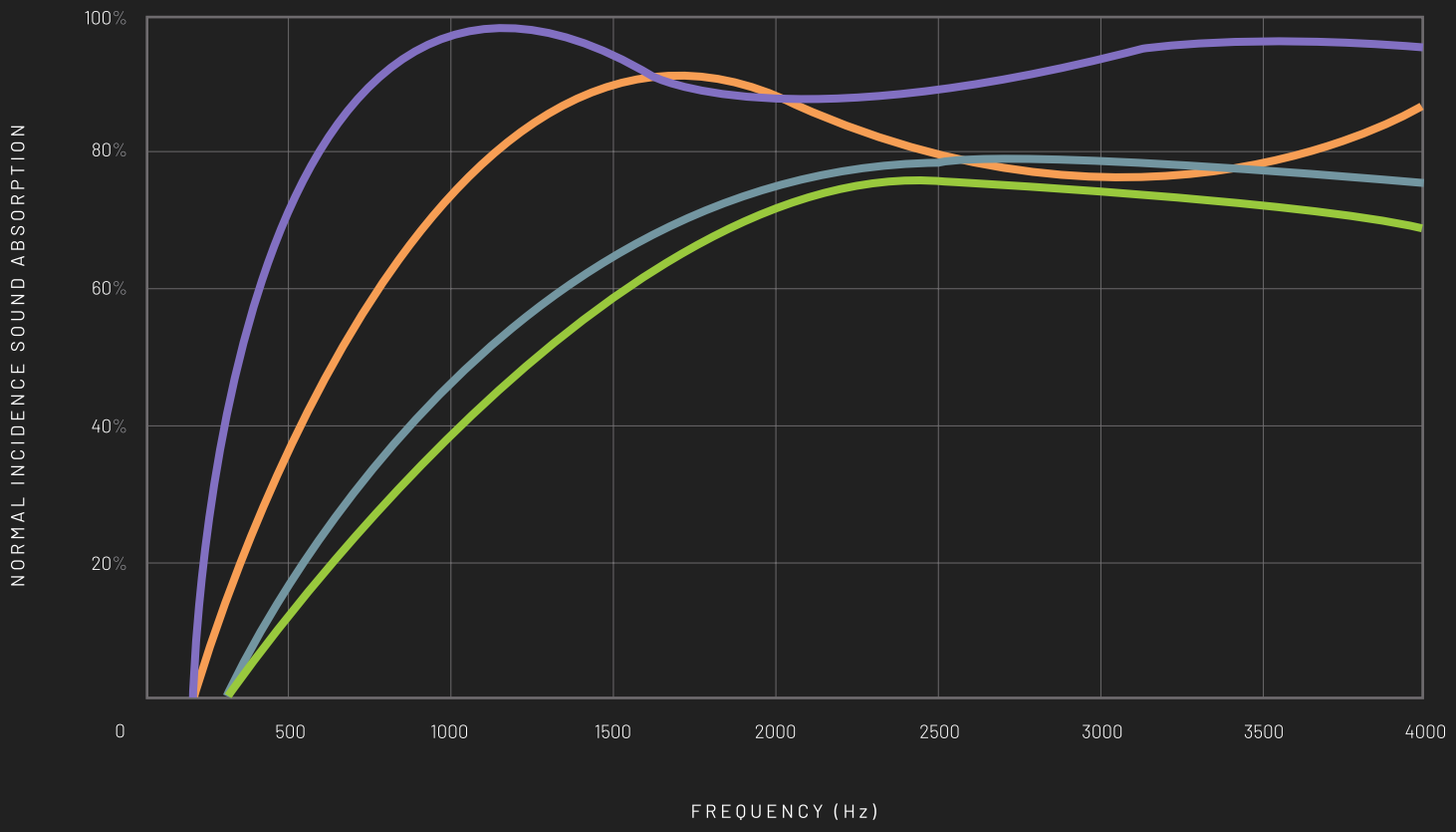
hpd VERSION 2.0

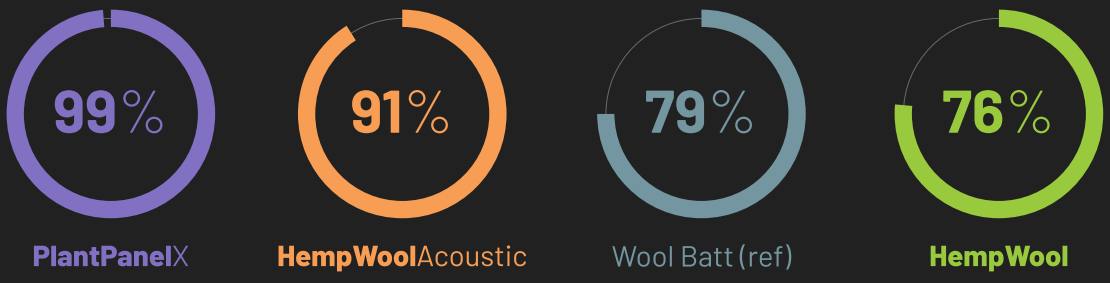
U.S. GREEN BUILDING COUNCIL

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 60%

### ENVIRONMENTAL

- FiberPad is 60% biobased, comprised of industrial hemp fiber and an engineered polyster for resiliency
- Low embodied energy due to sustainable manufacturing practices
- Reduction of greenhouse gases (GHGs), curr ently being analyzed for an En vironmental Product Declaration.
- Natural materials contribute to healthier indoor environment
- VOC and Red-List Chemical Free
- Hemp Fiber contributes to soil regeneration, and requires little water to grow




PEAK SOUND ABSORPTION

# HEMPITECTURE 2024

**FOR PEOPLE AND PLANET**

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