



hempitecture®

TRULY SUSTAINABLE
BUILDING MATERIALS
FOR PEOPLE & PLANET



Pioneering biobased insulation manufactured from industrial hemp and natural fibers.



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

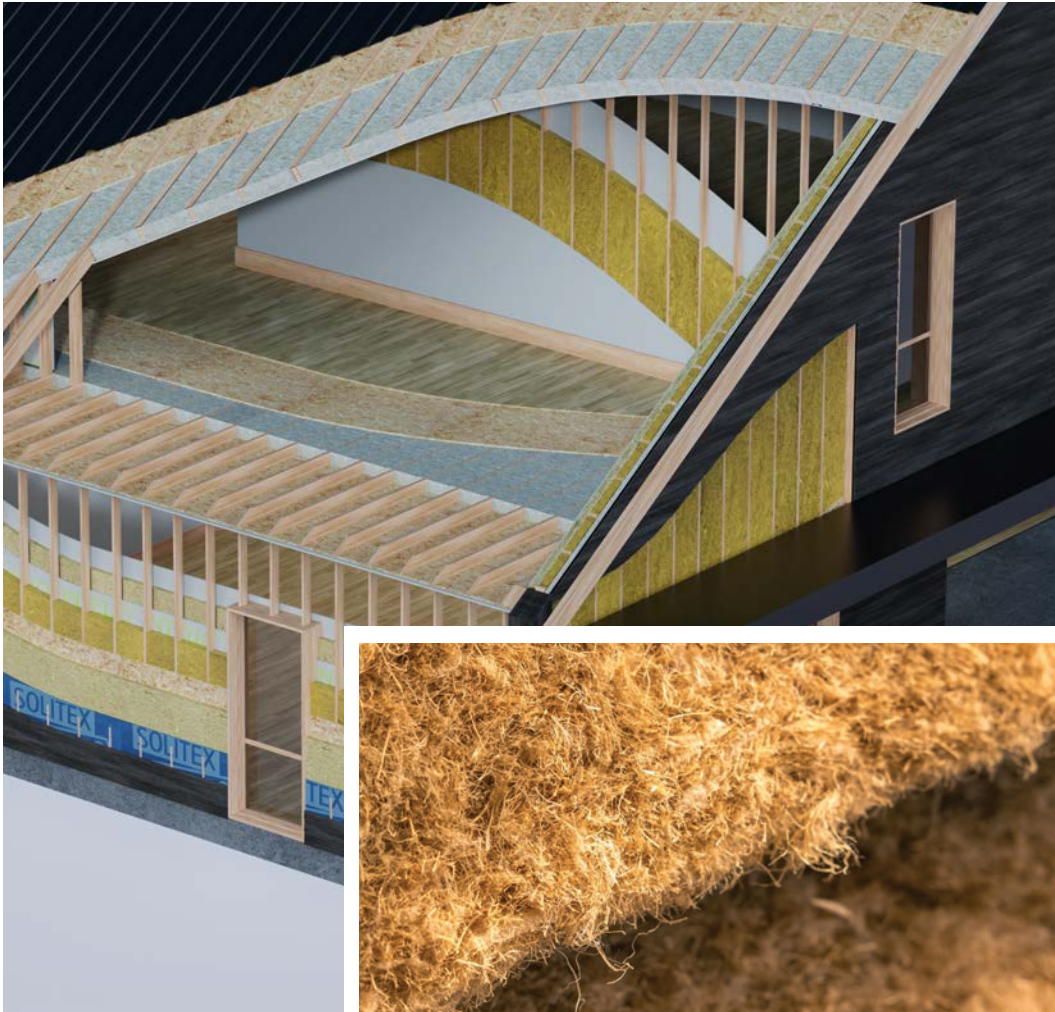
SOIL-REGENERATING

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.

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





HempWool+

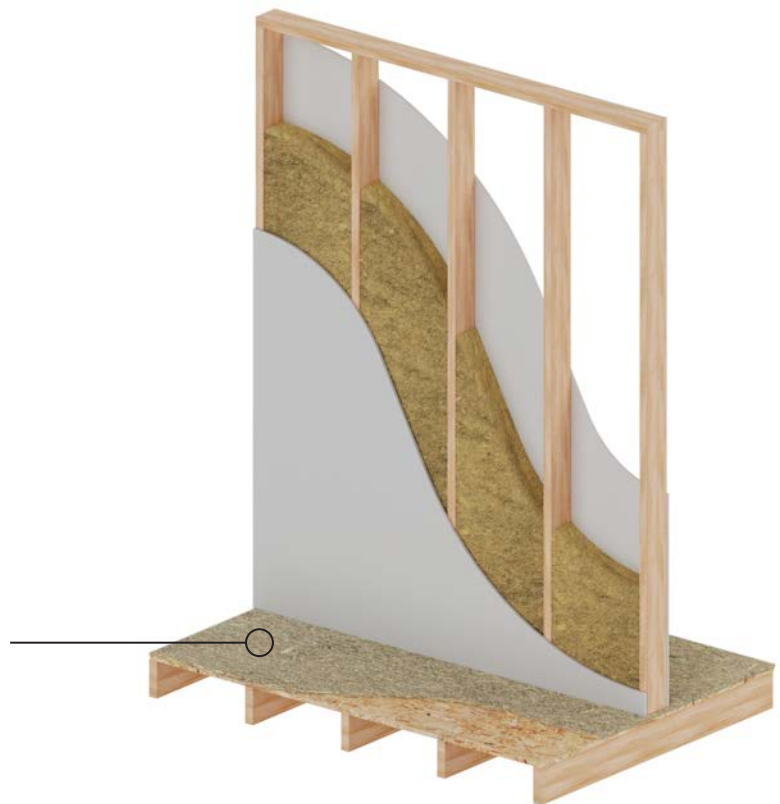
HIGH DENSITY BATT

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



HEMP BINDER



HempWool+

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/ft³ / 45Kg/m³

ASTM C518

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

ASTM E1354

Vapor Permeability - 0.647 Perms / 37ng/Pa.s.m²

ASTM E1321 - 13

Ignition Time - 6.67 sec.
Average Heat Release Rate - 5.74 (Btu/s/ft²)
Total Heat Release - 642.8 (Btu/s/ft²)
Heat Release Maximum Rate - 10.98 (Btu/s/ft²)
Total Smoke Release by Surface Unit - 217.26 (Btu/s/ft²)



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 contributes 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/in²

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

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 properties 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 substrates. 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 knives 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

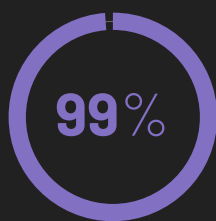
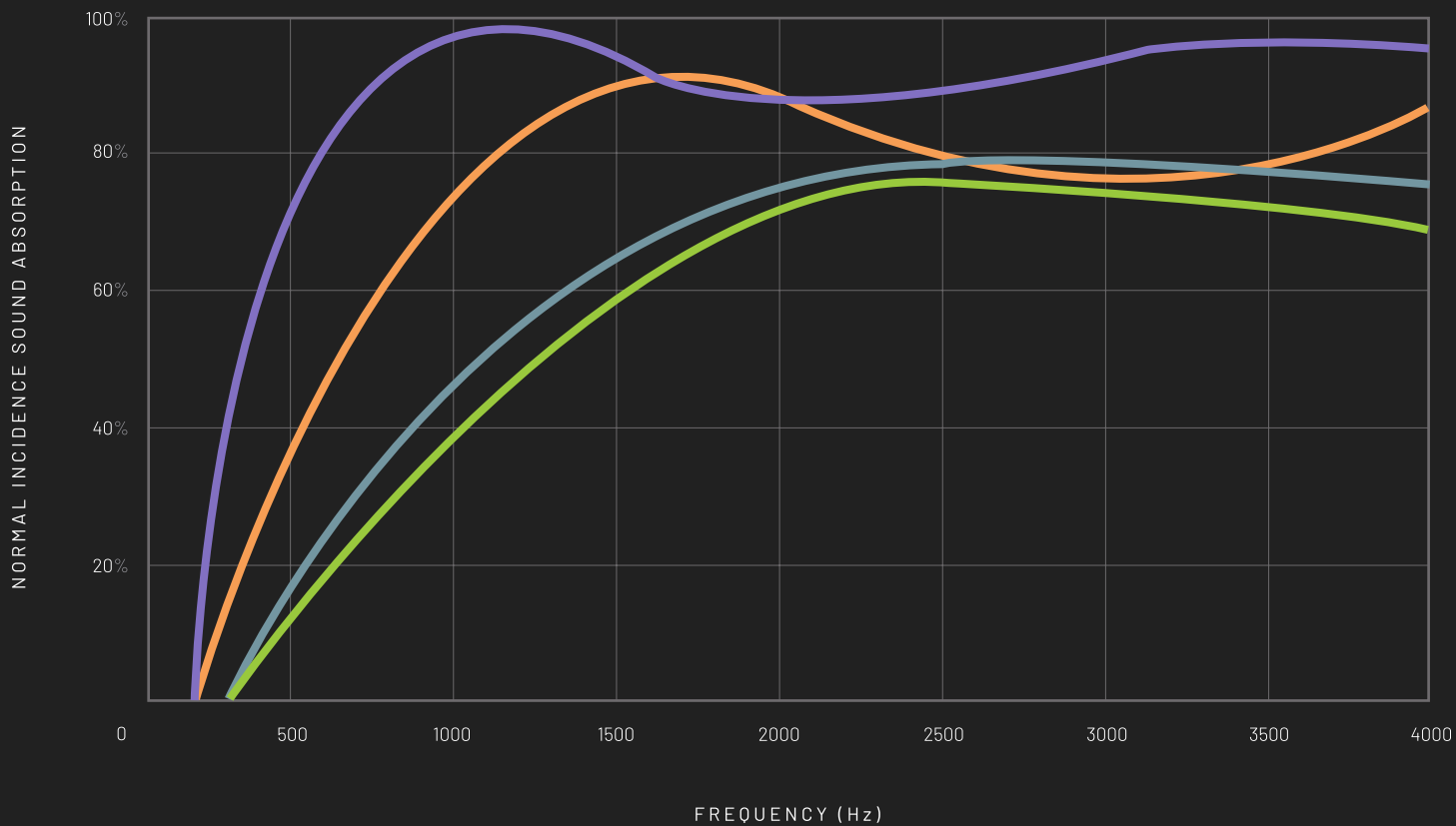
FF 1-70

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

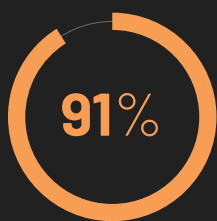


ENVIRONMENTAL

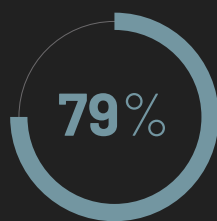
- FiberPad is 80% biobased, comprised of industrial hemp fiber and an engineered polyester for resiliency
- Low embodied energy due to sustainable manufacturing practices
- Reduction of greenhouse gases (GHGs), currently being analyzed for an Environmental Product Declaration.
- Natural materials contribute to healthier indoor environment
- VOC and Red-List Chemical Free
- Hemp Fiber contributes to soil regeneration, and requires little water to grow



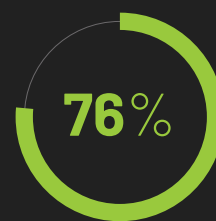
PlantPanelX



HempWoolAcoustic



Wool Batt (ref)



HempWool

PEAK SOUND ABSORPTION

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'

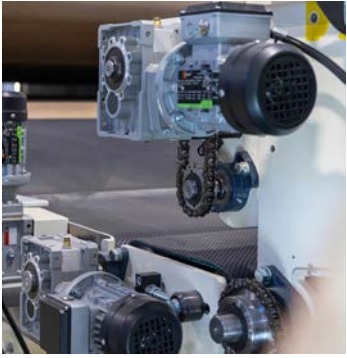
\$1.00 SqFt
\$1920 Pallet
1920 Total SqFt/Pallet

All materials sold by the full pallet only.

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



MADE IN IDAHO



CONTRACTOR FEEDBACK



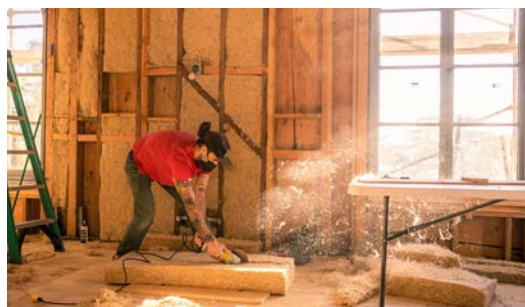
LORENZO M.

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.



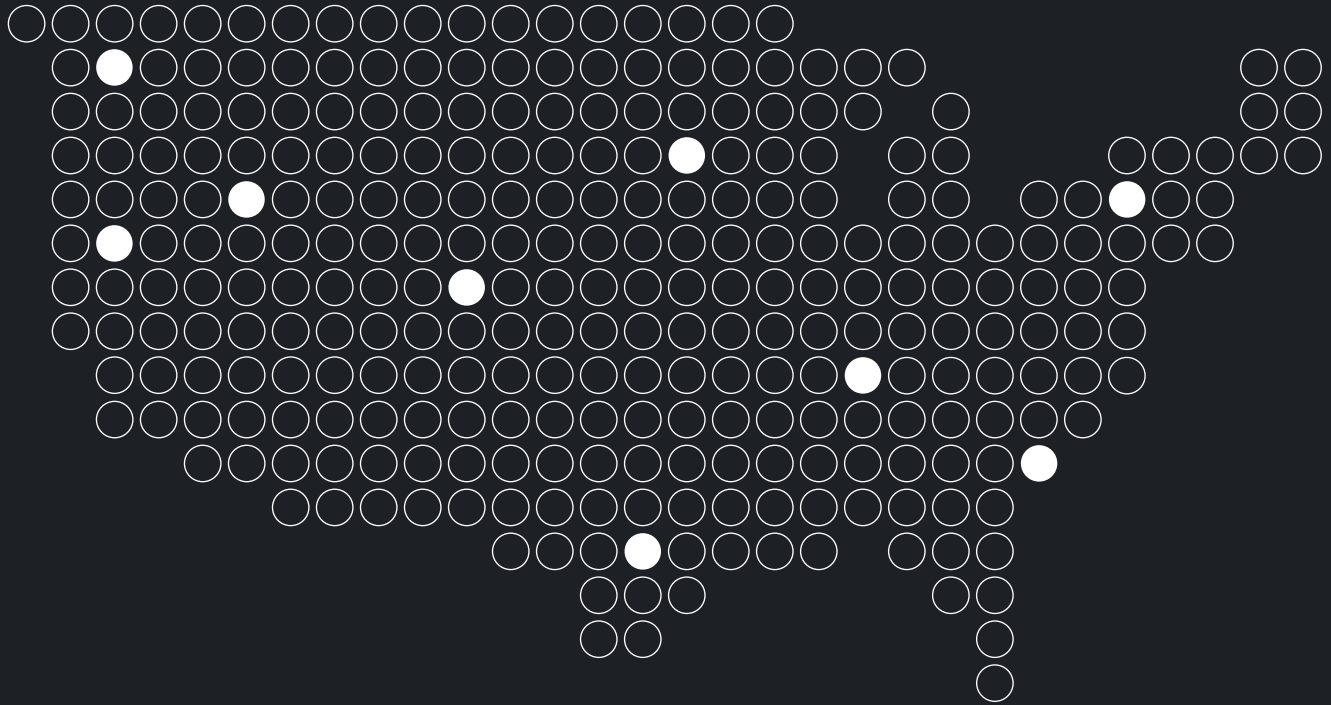
DAVE B.

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 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.

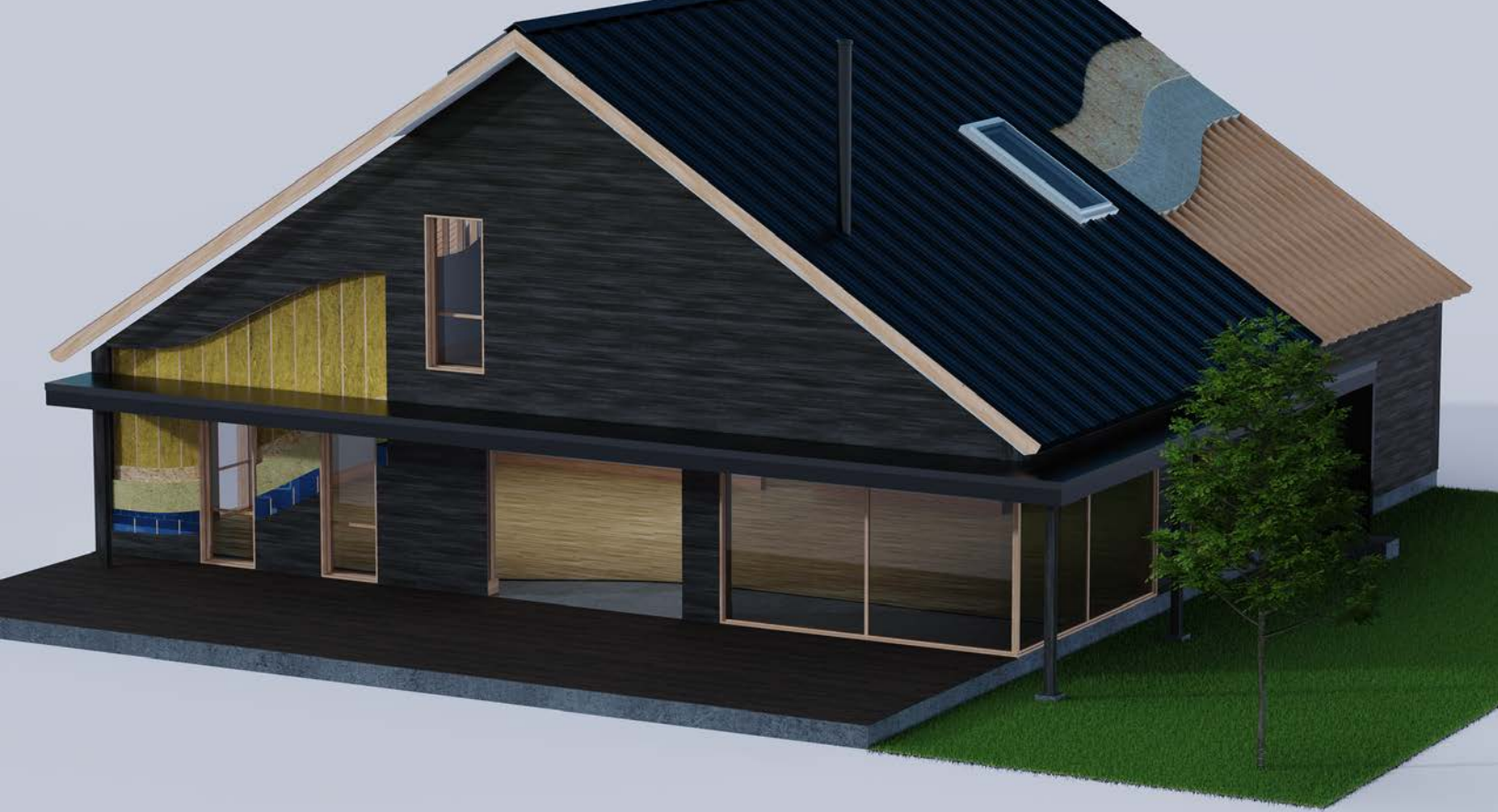


WAREHOUSES

- 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***



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



HEMPITECTURE	2024
FOR PEOPLE AND PLANET	