



FiberFill

BLOWN INSULATE

Installation Guide

A blow-in insulation made from cellulosic natural fibers, engineered for exceptional thermal performance and sustainability. As a natural fiber insulation, it offers an R value of 3.7 per inch and effective moisture regulation. Non-toxic and free from VOCs, FiberFill is formulated for fire, fungi, and corrosion resistance, ensuring a safe and eco-friendly insulation solution.





FiberFill cellulosic natural insulation is a high-performance thermal and acoustic insulator, available in 11.3 kg (25 lb) compressed bags. It has a uniform beige color, is odorless, and is made entirely from cellulose fibers sourced from FSC-certified wood chips. Designed for seamless, gap-free insulation, its interlocking wood fibers ensure stability with a blow-in density of 48 kg/m^3 in closed cavities, minimizing settling. In open attics, its 24.4 kg/m^3 density provides cost savings while maintaining an equivalent R-value.

FiberFill is ideal for new and existing buildings, offering superior resistance to mold, corrosion, and fire. Unlike shredded recycled paper insulation, its micro-fibrillated fibers interlock tightly during installation—whether by hand or with a shredder-blower—ensuring minimal settling.

As a carbon-negative insulation, **FiberFill** actively reduces the planet's carbon footprint, making it a truly sustainable choice for modern construction.



Why FiberFill

Dimensionally Stable & Moisture-Regulating

The FiberFill insulation manufacturing process ensures a dimensionally stable and homogeneous product, allowing it to fill cavities between studs seamlessly without gaps. Its hygroscopic properties enable it to adsorb and release moisture while maintaining its insulating performance, helping to regulate indoor humidity levels naturally.

Superior Acoustic Performance

With a Noise Reduction Coefficient (NRC) and Sound Absorption Average (SAA) exceeding 0.75, FiberFill offers exceptional soundproofing in accordance with ASTM C423 standards. Its dense, fibrous texture effectively absorbs sound, reducing noise transmission and enhancing acoustic comfort in residential and commercial spaces.



Sustainable & Carbon-Negative

Made from FSC-certified wood chip residues, FiberFill is a renewable, eco-friendly insulation that actively stores CO² throughout its life cycle. Its carbon-negative footprint contributes to a healthier planet, making it an environmentally responsible choice for sustainable construction.

This is why we have engineered FiberFill: to make homes healthier, more sustainable, and to have less impact both on our own indoor environment, as well as our planet.

PRIMARY USE

Blowable natural fiber insulation used in exterior walls, floors, attics, crawl spaces, and roofs. Applied with the same method and equipment as paper cellulose, without the debris and with reduced dust!

SIZE

Available in 25lb bags

(>86% recycled wood fiber, < 14% flame retardant.)

STORING FOR QUALITY

FiberFill insulation is packaged in waterproof and moisture-proof bags when intact. To maintain product integrity, store bags away from the elements, preventing exposure to water, moisture, or sunlight. If the original packaging is punctured, cover the bags with a waterproof tarp. When storing pallets outdoors, always place a tarp over the top to shield them from the weather.

During installation, ensure the bags are not punctured to confirm the insulation has not come into contact with rain or moisture. If any product appears wet or compromised, do not use it. For best results, install in dry weather conditions. If you have any concerns, contact the seller for guidance.



TECHNICAL DATA

ASTM C1777

Thermal Resistivity ((m.K)/W) - 25.7 (passed)

ASTM C1338

Fungi Resistance - No growth (passed)

CAN/ULC-S703

Permanence of open flame flammability (W/cm²) - 0.20 (passed)

CAN/ULC-S703

Separation of chemicals (%) - .0009% (passed)

CAN/ULC-S703

Density (kg/m³) - 29.5 (passed)

CAN/ULC-S703

Open flame flammability (W/cm²) - 0.21 (passed)

CAN/ULC-S703

Corrosivity - No perforation

CAN/ULC-S703

Vapor Absorption - 9.65% (passed)

CAN/ULC-S130

Resistance to slow combustion- 1.22% (passed)

Warning

Do not install FiberPad insulation directly on masonry or concrete walls.
Adhere to building safety codes and maintain the required clearance distances.
Ensure insulation does not block any air inlets or outlets.
Protect the insulation from moisture throughout the installation process.

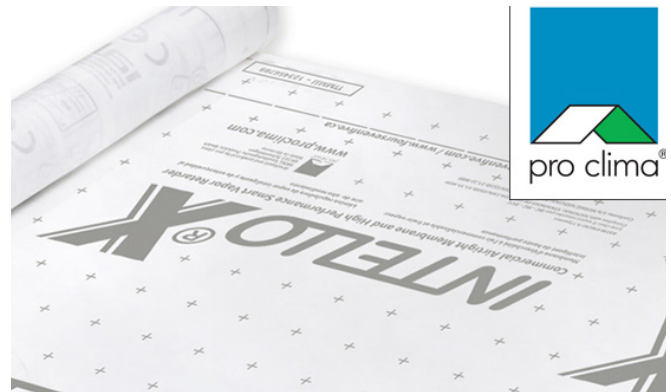
Tools Needed

Insulation-blower
Hoses
Rotary Nozzle
Needle Nozzle
PPE

PREPARING FOR INSTALLATION

For all cellulosic natural fiber insulation installations, it is recommended to use a high-performance vapor control membrane. This membrane acts as both a vapor barrier and an airtightness layer in constructions with exterior diffusion, underlayments, or cellulose-fiber boards.

When injecting FiberFill insulation into a closed cavity, a 6-mil thick vapor control retaining membrane is required to hold the slightly pressurized fiber securely between the walls.



FIBERFILL - WALLS INSTALLATION GUIDE

General Guidelines

The thickness of FiberFill insulation should be selected based on the required thermal performance. (For detailed specifications, refer to **Chart** on page 14). To fully benefit from the hygroscopic properties of wood fiber, it is strongly recommended to use a 6-mil vapor control membrane.

Vapor Control Membrane

Vapor control membranes allow the insulation to breathe, unlike 6-mil polyethylene, as they are permeable to water vapor.

Secure the membrane by stapling it to the studs of the primary framing on the warm side of the building, following the manufacturer's guidelines.

Maintain a minimum overlap of 2.5" (65 mm) between each strip of vapor control membrane.

Ensure the overlap is watertight by sealing it with adhesive compatible with the membrane material.

Insulation

When injected under pressure into walls, FiberFill achieves a lower density, minimizing settling in vertical spaces. Needle-type nozzles facilitate application and ensure even fiber distribution.

For optimal performance, apply FiberFill at a density of 48 kg/m^3 , and use the 360 HD system to guarantee consistent fiber distribution within walls or closed cavities.

Interior Finish

Before installing the interior finish, ensure that all wall/floor, wall/ceiling, and wall/wall junctions are airtight, along with any connections to ventilation pipes, windows, electrical outlets, or other singular points.

For further guidance, refer to the relevant regulations and the manufacturer's instructions.

STEP 1

For optimal performance, install a vapor control membrane over the wood studs on the interior side to allow the insulation to breathe. If a vapor control membrane is unavailable, 6-mil polyethylene can be used as an alternative, though it is less effective at managing humidity with cellulose fiber insulation.

STEP 2

Stretch the vapor control membrane tightly to avoid wrinkling, which can cause it to swell when the cellulose fiber is installed. Follow the manufacturer's recommendations for the required overlap between membrane strips.

STEP 3

Use the adhesive tape specified by the membrane manufacturer to properly seal the overlaps and ensure airtightness.

STEP 4

To prevent the membrane from swelling during installation, place vertical battens every 16" on center. Add horizontal battens on the studs between the vertical ones for additional support.

STEP 5

Use a rotary nozzle to fill airtight cavities evenly. (Refer to *Wall Cross Section* on page 7.)

STEP 6

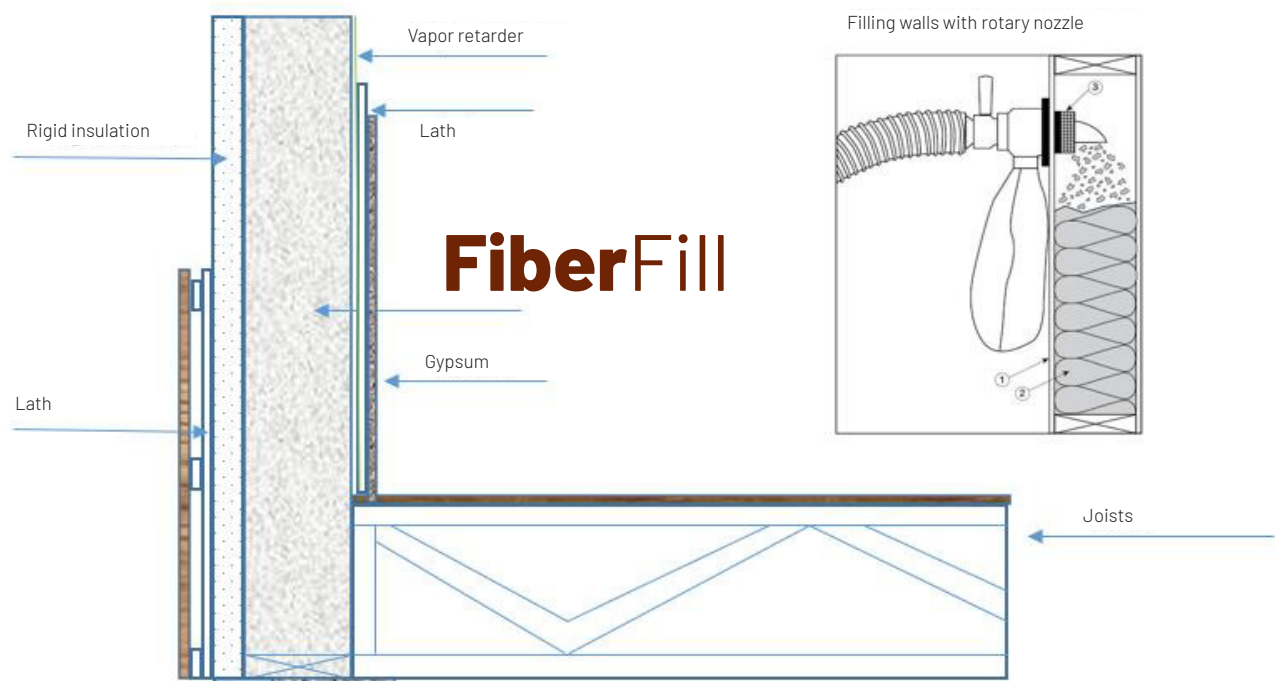
When using a rotary nozzle, create a 3.5" opening near the top of the cavity, approximately 12" below the top plate. (See *Box Shape Openings*, wall cross-section drawing with holes on page 7.)

DISTRIBUTION / DENSITY CHECK

After installation, check the insulation distribution in each cavity. A slight 0.5-inch bulge in the membrane is normal. If you detect a lack of density in any cavity, create a small opening in the membrane and inject the necessary insulation. Seal the opening with the recommended adhesive tape.

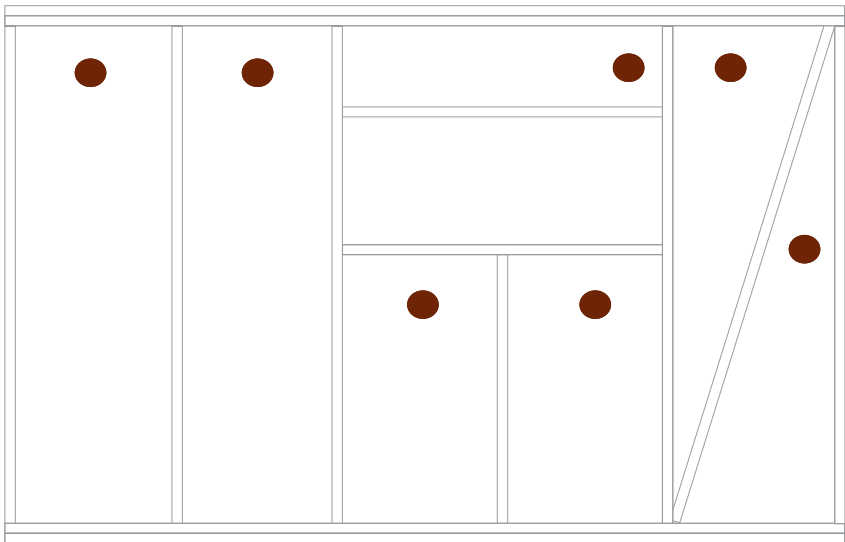
Verify the density by applying the insulation to a closed test cavity with a known volume (e.g., 1 m^3). Adjust the blower settings as needed to achieve the recommended density.

WALL CROSS SECTION



BOX SHAPE OPENINGS

For the rotary nozzle, make a 3.5" opening in the top of the box 12 inches from the top plate. Close the hole with the recommended adhesive tape.



FIBERFILL - FLOORS AND CEILINGS INSTALLATION GUIDE

General Guidelines

The thickness of FiberFill insulation should be selected based on the required thermal performance. (For detailed specifications, refer to *Chart* on page 14). To maximize the hygroscopic benefits of cellulose fiber, it is strongly recommended to use a vapor control membrane.

Vapor Control Membrane

Vapor control membranes allow the insulation to breathe, unlike 6-mil polyethylene, as they are permeable to water vapor.

Secure the membrane by stapling it to the studs of the primary framing on the warm side of the building, following the manufacturer's guidelines.

Maintain a minimum overlap of 2.5" (65 mm) between each strip of vapor control membrane.

Ensure the overlap is watertight by sealing it with adhesive compatible with the membrane material.

Insulation

FiberFill is injected into floors and ceilings using a needle-shaped injection nozzle, which simplifies the process and effectively insulates hard-to-reach cavities without leaving gaps. Do not apply the insulation around recessed ceiling lights. Use only in areas where temperatures do not exceed 90°C (194°F).

STEP 1

Preferably, install a vapor control membrane beneath the floor joists or beams to contain the insulation.

If a vapor control membrane is unavailable, 6-mil polyethylene can be used as an alternative, though it is less effective at managing room humidity.

STEP 2

Ensure the vapor control membrane is tightly stretched to prevent wrinkling, which could cause it to swell when the cellulosic fiber is installed. Follow the manufacturer's recommendations for overlap distances.

STEP 3

Apply the adhesive tape specified by the membrane manufacturer to properly seal the overlaps and ensure airtightness.

STEP 4

Lath the ceiling every 16" on center to hold the vapor control membrane securely in place. Add perpendicular laths to create space for wiring and electrical boxes, preventing accidental punctures of the membrane.

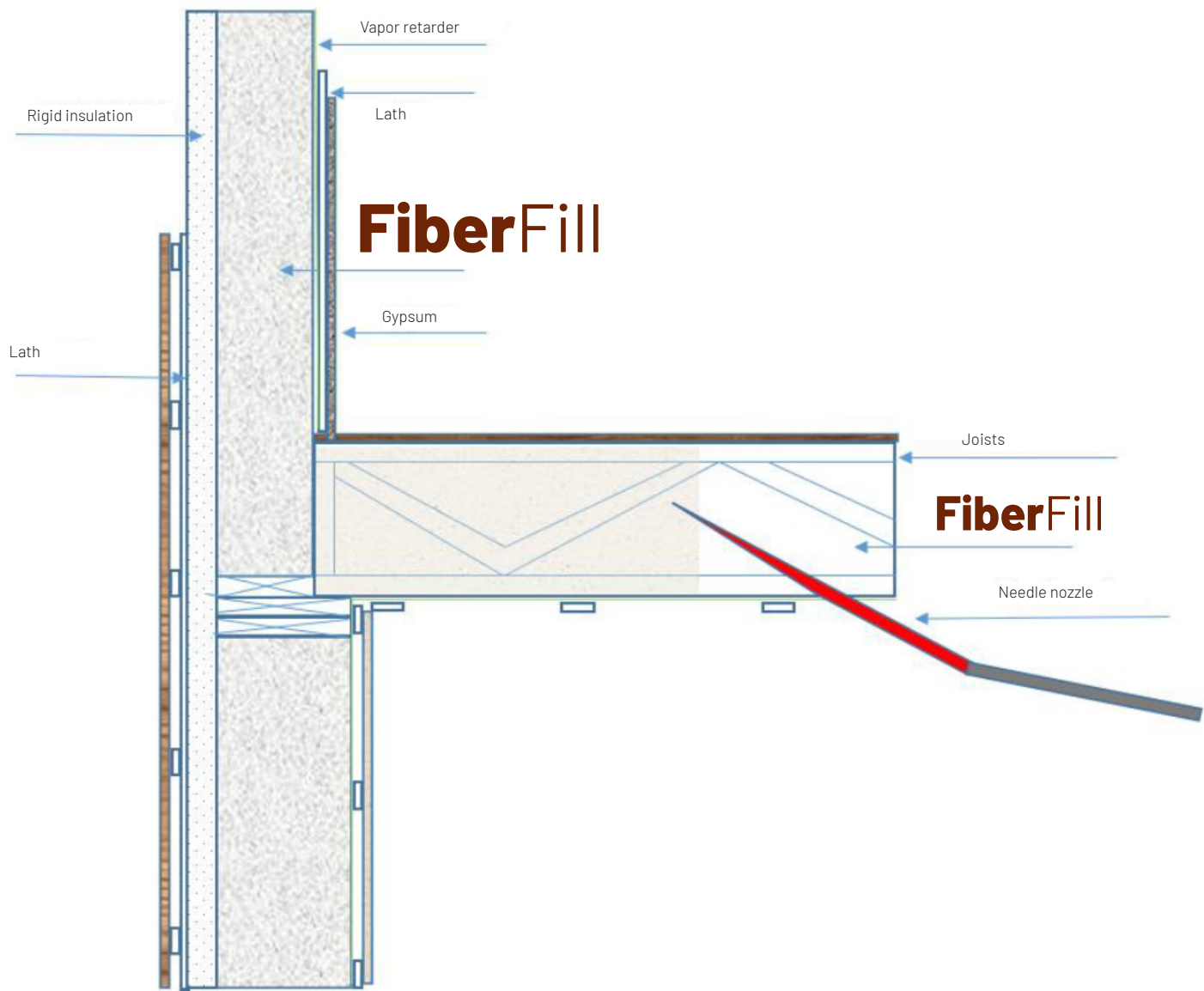
STEP 5

Create an opening between each joist or beam to inject the cellulose fiber insulation using a nozzle. (Refer to *Floor Cross Section* on page 9.) Ensure the insulation is applied at the desired density and that all cavities are fully filled.

STEP 6

For recessed light fixtures, cover the CSA housing with a 0.5" thick plywood box lined with fireproof material. Size the box according to the fixture's power, using a factor of 1000 cm³ per 1.25 watts of light fixture power. Ensure the fixture is centered inside the box for proper protection.

FLOOR CROSS SECTION



FIBERFILL - ATTICS & LOW-SLOPE INSTALLATION GUIDE

General Guidelines

The thickness of FiberFill insulation should be selected based on the required thermal performance. (For detailed specifications, refer to *Chart* on page 14). To maximize the hygroscopic benefits of cellulose fiber, it is strongly recommended to use a vapor control membrane.

Vapor Control Membrane

Vapor control membranes allow the insulation to breathe, unlike 6-mil polyethylene, as they are permeable to water vapor.

Secure the membrane by stapling it to the studs of the primary framing on the warm side of the building, following the manufacturer's guidelines.

Maintain a minimum overlap of 2.5" (65 mm) between each strip of vapor control membrane.

Ensure the overlap is watertight by sealing it with adhesive compatible with the membrane material.

Insulation

In attics, FiberFill is blown in using hoses directed by the installer for even coverage. To ensure the insulation thickness matches the required surface coverage, attach a self-adhesive ruler to the vertical frame of the roof trusses, as shown in the detail diagram.

Keep insulation clear of air vents and heat sources (e.g., chimneys or light fixtures). Maintain a minimum distance of 3" from chimneys, though 6" is recommended for added safety. Use non-combustible insulating materials to fill this gap. Ensure 1 ft² of air intake for every 300 ft² of ceiling area to allow for proper ventilation.

Unfinished attic

Unfinished attic spaces must be properly ventilated and remain unheated. Maintain a minimum clearance of 2.5" (65 mm) between the roof support and the insulation by installing a suitable baffle board attached to the wall. This prevents the insulation from obstructing air circulation.

STEP 1

Ensure the unfinished attic space is properly ventilated and remains unheated. Preferably, install a vapor control membrane on the interior side of the roof trusses to allow the insulation to breathe. If a vapor control membrane is unavailable, 6-mil polyethylene can be used as an alternative, though it is less effective at managing indoor humidity.

STEP 2

Stretch the vapor control membrane tightly to prevent wrinkling, which could cause it to swell during insulation installation. Follow the manufacturer's recommendations for overlap distances.

STEP 3

Use the adhesive tape specified by the membrane manufacturer to securely seal the overlaps.

STEP 4

Lath the ceiling every 16" on center to hold the vapor control membrane in place.

STEP 5

Install ventilation deflectors between the roof trusses, maintaining a minimum 1" air gap between the deflector and the roof support panel. (Refer to *Attic Cross Section* on page 12).

STEP 6

Leave a minimum 3" gap between the chimney and the insulation. (Refer to *Attic with Fireplace Cross Section* on page 13.) Fill this 3" gap with non-combustible insulation for added fire safety.

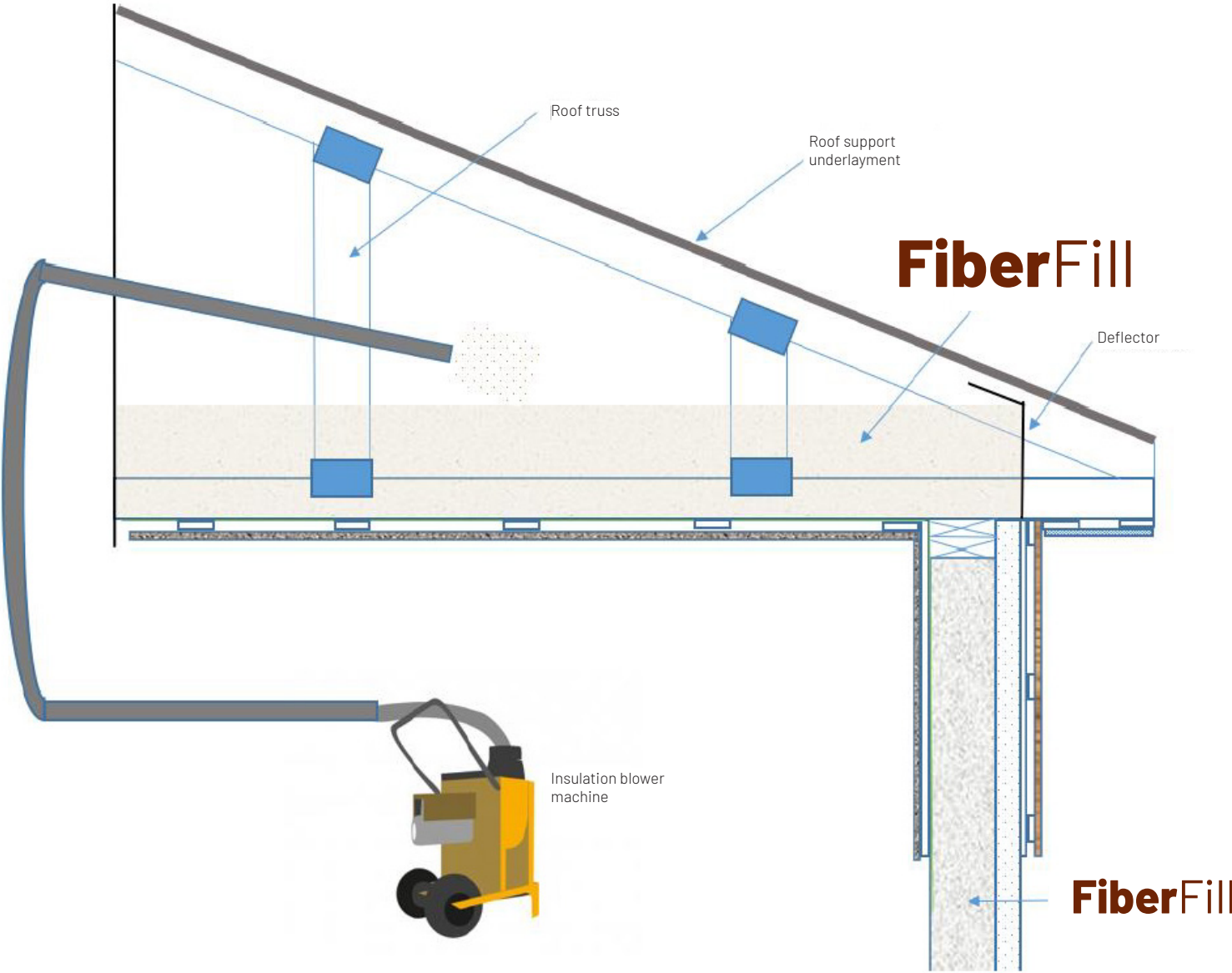
STEP 7

For recessed light fixtures, cover the CSA housing with a 0.5" thick plywood box lined with fireproof material. Size the box based on the fixture's power, using a factor of 1000 cm³ per 1.25 watts of fixture power. Ensure the fixture is centered inside the box.

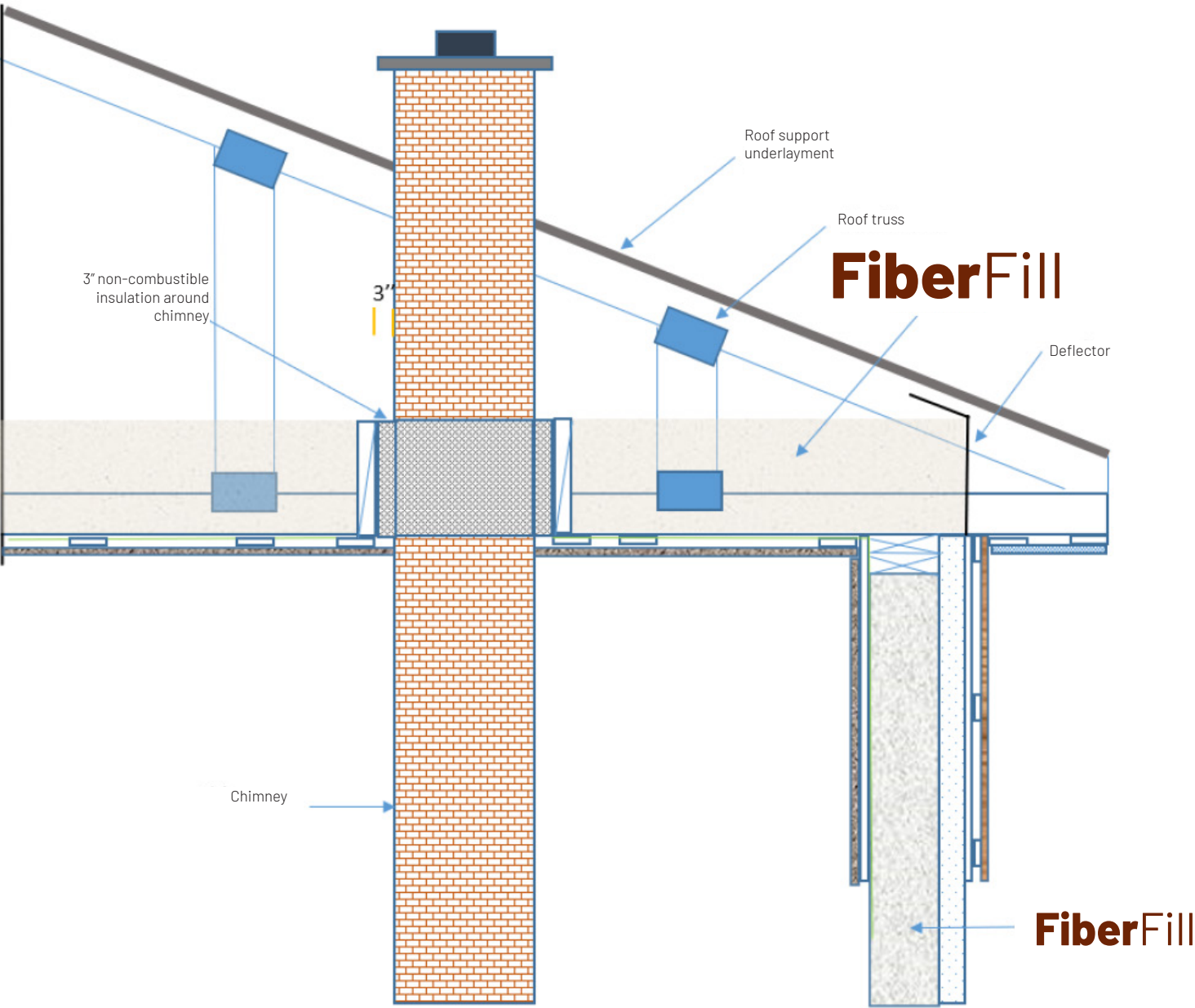
STEP 8

Begin applying insulation from the deflectors toward the center. Continue working toward the attic access hatch. Ensure the insulation does not make direct contact with electrical ceiling light fixtures or junction boxes.

ATTIC CROSS SECTION



ATTIC WITH FIREPLACE CROSS SECTION



Please use for estimating purposes only. Actual results may vary depending on the application method, equipment, and hose type used.



ATTIC

R-Value at 75°F Mean Temp	Min Thickness (in)		Net Coverage (no adjustment for framing)			Net Coverage (adjusted for 2x6" framing on 16" centers)	
	Initial Installed Thickness	Settled Thickness	Max. SqFt per bag	Min. Bags per 1,000 SqFt.	Min. Wt. per SqFt.	Max SqFt. per Bag	Min. Bags per 1,000 SqFt.
11	3.8	3.4	67.8	14.8	0.37	74.8	13.4
13	4.4	4.0	56.5	17.7	0.44	62.4	16.0
19	6.3	5.7	37.7	26.6	0.66	41.4	24.2
22	7.3	6.6	32.3	31.0	0.77	35.0	28.6
24	8.0	7.2	29.4	34.0	0.85	31.7	31.5
26	8.6	7.8	27.1	36.9	0.92	29.0	34.5
30	9.9	8.9	23.3	42.9	1.07	24.7	40.4
32	10.6	9.5	21.8	45.9	1.15	23.1	43.4
38	12.5	11.3	18.3	54.8	1.37	19.1	52.3
40	13.2	11.9	17.3	57.8	1.44	18.1	55.3
45	14.8	13.4	15.3	65.2	1.63	16.0	62.7
48	15.8	14.2	14.4	69.7	1.74	14.9	67.1
49	16.1	14.5	14.1	71.2	1.78	14.6	68.6
50	16.5	14.8	13.8	72.6	1.82	14.3	70.1
55	18.1	16.3	12.5	80.1	2.00	12.9	77.6
60	19.7	17.8	11.4	87.5	2.19	11.8	85.0
70	23.0	20.7	9.8	102.4	2.56	10.0	99.9



WALL & FLOOR

Structure Framing	Thermal Resistance (R)	Installed Thickness (in)	Min. Wt. per sq/ft (lb/ft²)	Max Coverage per Bag (adjusted for framing)	
				16" OC (ft²/bag)	16" OC (ft²/bag)
2 x 4	13	3.5	0.9	32.9	31.4
2 x 6	21	5.5	1.4	20.9	20
2 x 8	28	7.3	1.8	15.9	15.2
2 x 10	35	9.3	2.3	12.4	11.9



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