



Retrofitting Existing Sidewalls with Greenfiber® Insulation Contractor Work Instructions



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Retrofitting Existing Sidewalls with Greenfiber Insulation – Contractor Work Instructions

Many homes built prior to 1970 have no insulation in the wall cavities. SANCTUARY by Greenfiber is engineered to fill the tiny joints, crevices and gaps hidden within walls. Highly effective as sound insulation, it serves as a scientifically advanced barrier capable of muffling sounds that typically infiltrate and reverberate through our homes. Proven to reduce the power of sound by up to 60%!



The following instructions are for contractors for the purpose of retrofitting existing sidewalls with Greenfiber Insulation. These instructions are designed for use with Greenfiber's SANCTUARY product for installation in sidewall cavities. Follow the sidewall coverage charts on the bag to assure that the proper amount of insulation is installed.

Before Installation

Retrofitting any part of a home's envelope will cause changes in air, heat and moisture flow. Contractors must understand how this installation will impact the house, i.e., ventilation and combustion air requirements. Examine both the inside and outside of a home to determine areas that are inappropriate for installation. For example:

- Check the interiors and exteriors of the home, under sinks and around plumbing fixtures for any cracks and holes, and make sure to seal them with foam or caulk.
- Where moisture related problems are evident, the source of the problems must be determined and corrected before proceeding.
- Do not insulate any home that has active knob and tube wiring.

- Remember to avoid installing insulation in stud runs where there are heat-producing devices, such as a fireplace, recessed lights or a chimney.
- Block off tops and bottoms of areas with balloon framing (areas where wall cavities are open from the attic to the basement or crawl space) before blowing.
- Greenfiber's Material Data Safety Sheet (MSDS) recommends the use of eye and respiratory protection if necessary when installing this product. The insulation contractor is responsible for managing housekeeping and engineering controls below nuisance dust levels. Follow all OSHA guidelines for safety requirements including 29 CFR 1926.501 Duty to Have Fall Protection. Various other local, state and federal rules and guidelines may apply.

Application

Installation through the interior wall is very difficult and is not detailed here. While it can be done, there is a wide range of other considerations related to someone currently occupying the home that present challenges to interior wall installation.

Required Equipment:

- Insulation blowing machine capable of at least 3.2 psi at the end of the hose
- Stud finder
- Putty knife
- Utility knife
- Drill and a 2 ½-inch Relton carbide hole cutter / 3/8" carbide center bit
- Filter (such as sponge)
- Dust mask
- Eye protection
- Duct tape
- 50 ft. of 3-inch blowing hose*
- 3-inch to 2 ½-inch reducer
- 50 ft. of 2 ½-inch blowing hose
- 2 ½ -inch to 2-inch reducer
- 50 ft. of 2-inch blowing hose
- 2-inch to 1 ½-inch inside diameter reducer
- 8 ft. of 1 ½-inch inside diameter fill tube**
- Hose clamps***
- Styrofoam plugs
- Canned spray foam

NOTES:

* Ensure that there are no holes in the hoses to prevent the material from clogging.

** All weather recommended

*** Recommended to double clamp every connection

Blower Machine Guidelines

- Place the blower machine on level ground, close to your work space and electrical outlets.
- When laying out hose, avoid sharp turns in hose.
- Put a tarp underneath the blower machine for easy cleanup. The tarp will also keep foreign objects from getting into the hopper.
- There are several types of blower machines with adjustable airflows. Double check the operating instructions before use.

Drilling Instructions

1. Check that the drill bit size matches the plugs.
2. Remove a section of exterior siding and drill a single 2 ½-inch diameter hole through the sheathing approximately 1 to 1 ½-feet from the bottom plate of the wall. Angle drill holes upward.
3. Avoid drilling into areas of cold air returns.
4. Mark the 8-foot fill tube every 2 feet and 6-inches from blowing end. Probe cavities by snaking the fill tube up cavity (location of blockages in walls can be determined by the markings on fill tube.) Drill additional holes in cavity, as needed, to bypass blockages.
5. Older homes may have corners with diagonal bracing. Check corners of walls to determine if your house has this type of framing. If so, drill additional holes in the corners.



Installation Instructions

1. Using the utility knife, cut the end of tube on a diagonal to facilitate snaking behind wiring and plumbing. Insert the nozzle into the hole, snaking up the wall cavity and turn on the blower machine. The blower will start to strain when the cavity is filled.
2. Suggested beginning settings for Insulation blowing machine:
 - Material gate set to 25% of total opening.
 - Air setting by calibrating blower speed using pressure gauge
3. Insert cut end of the tube through the filter into the 2 ½-inch drilled hole and feed to within 6-inches of the top of the stud cavity. Note any fire stops or other obstructions. Drill additional holes as needed if obstructions are present
4. Turn on insulation blowing machine (Hold tube in place 6-inches from top). As material begins to flow, the cavity will fill bottom to top. When you feel resistance from the tube, the cavity is full - DO NOT STOP BLOWING. You will now begin the Dry Dense-Pack Procedure where the material is compressed in the cavity and excess air is forced out the entry hole.
5. As you feel pushback, switch the machine to air to air then ramrod the material in the cavity until you empty the hose. Dense-pack 2 to 2 ½ ft. with the material left in the hose. This will also help to prevent clogging.
6. Once the tube is empty, turn the machine back to fill and continue filling the cavity. When you feel resistance again, switch back to air and dense-pack. Repeat until the wall cavity is full and the fill tube comes out to the 6" mark. Note: It takes about 3 times to fill an 8-ft. wall cavity; about 4 times to fill a 6-ft. wall cavity.
7. Once the entire cavity is Dry Dense-Packed, retract the tube through the entry hole, jab forward 3 to 4 times finish Dry Dense-Packing the entry area. Turn off the blowing machine and keep the tube in the hole for 3 to 4 seconds before fully removing.

NOTE: These settings are given as a starting point. Adjustment will be needed based on machine type and condition.

Installation Instructions

- After filling each hole, check the end of the fill tube to make sure there is no material blocking the opening. A wire coat hanger or screwdriver can be used to unclog the fill tube. If this doesn't work, remove the fill tube from the hose and clear the blocked material by closing the gate and blowing excess material into the trash. Reattach the fill tube once the hose is empty.
- Place plugs into the holes after the cavities have been filled. Seal the plugs with canned spray foam as needed.
- When you are done with the project, close the feed gate on the machine before transporting.



Contact your Greenfiber technical representative if you have questions regarding coverage, equipment or application at 800.228.0024.

(I) In field testing on identical 2x4 exterior wall types, Greenfiber® R-13 Stabilized Spray-Applied Insulation outperforms R-15 unfaced fiberglass batts by 4 NIC raring points , which equates to a 60% reduction in sound power. The weak point in the assembly such as flanking through windows and doors will diminish the value of the reduction in sound power. Reduction in sound power is achieved through retrofitting, dense-packing or spray applying Greenfiber into exterior walls (contractor installation is recommended for these applications). See manufacturer's installation guide for full details on how to install to meet specifications.

USGF does not guarantee, warrant or attempt to determine whether a building structure, design or the use of material therein complies with any applicable Codes, standards, guidelines or standards of workmanship. Adding insulation to any part of a home's envelope will cause changes in air, heat and moisture flow. The user must understand how the use of insulation will change the performance of a dwelling prior to installation. The user maintains the full and complete responsibility to comply with all Codes, laws and regulations applicable to the safe and proper use, handling and installation of the product and should consult with an architect, engineer, building scientist, and/or a rater/energy specialist for all construction, design and performance related questions. The information contained herein is believed to be accurate as of the time of preparation. However, USGF makes no warranty concerning the accuracy of this information. USGF will not be liable for claims relating to the use of information contained herein, regardless of whether it is claimed that the information or recommendations are inaccurate, incomplete or incorrect.