



SANCTUARY  
**DEFENSE**

by GREENFIBER®

## Attic Floor Installation Instructions for Contractors

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# Attic Floor Installation Instructions for Contractors

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The following are the manufacturer's recommendations for installation of Greenfiber® Insulation in attic floors. The instructions and procedures for operating all equipment must be obtained from the equipment manufacturer and must be complied with at all times. Blowing machines must be properly maintained and serviced per the manufacturer's instructions. Greenfiber® recommends the use of Spray Insulation Components (800.210.1311) for installation equipment.

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## Installation Requirements

1. The insulation contractor has read and familiarized themselves with this document.
2. The contractor crew has been trained in the proper, safe use and operation of the attic application equipment.
3. For breathing protection, use a NIOSH approved N95 or higher disposable or reusable particulate respirator per 29 CFR 1910.134. Greenfiber's Material Safety Data Sheet (MSDS) requires the use of safety eye wear 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.
4. The insulation contractor has a quality assurance process that guarantees in-field compliance with the installation instructions as set forth by the manufacturer and any local or national Code requirements.
5. The contractor uses only SANCTUARY® Defense by Greenfiber® for attic applications.

## Precautions

Unplug equipment and comply with all applicable Lock out/ Tag out procedures before performing any maintenance or point-of-operation troubleshooting. Be sure to follow the blowing machine manufacturer's instructions for all servicing, maintenance or repairs.

Keep insulation at least 3 inches away from non IC (Insulation Contact) rated light fixtures. Only IC rated recessed lights can be covered with insulation.

Keep insulation away from exhaust flues of furnaces, water heaters, space heaters, chimney flues or other heat generating devices. ASTM C 1015-06 recommends that a minimum of three inches of air space should be maintained

between the insulation and heat source. Follow manufacturer's recommended installation instructions for the use of insulation with the above mentioned devices. If using SANCTUARY® Defense by Greenfiber®, spray tips and other installation equipment must be maintained in order to achieve coverage.

## Application

1. Use current Greenfiber® coverage charts to ensure the required R-value is installed.
2. The applicator must install both the minimum number of bags per 1,000 sq. ft. and the minimum installed thickness to ensure the stated R-value has been reached. Both of these requirements must be met to achieve the specified R-value.
3. Code requires attic rulers to be installed every 300 sq. ft.
4. Follow all Code and other legal requirements when adjusting for insulation thickness limitations due to construction details. Ensure that attic preparation / air sealing has been completed prior to insulation installation per IRC 2012 Sections N1102.4.1 through N1102.4.4.



5. A retaining barrier should be installed around the access to ensure the proper R-value is installed to the edge of the access.

6. Ventilation is required by Code in unconditioned attics for moisture control. Vent chutes or baffles must be in place before installing insulation.
7. Blocking material needs to be installed at eaves in order to maximize R-value over the top plate of the exterior walls. This prevents insulation spillage into the eave overhangs.
8. Begin installation at the corner farthest from the attic access and work back. Avoid walking or crawling through areas that have already been insulated.
9. The installer should hold the hose horizontally to optimize coverage. Improper hose angle may result in reduction of coverage. Wherever possible, spray directly in line with ceiling joists rather than across them to maximize coverage.
10. Completed attic cards must be in sight of the attic access per Code requirements.



#### Moisture Control and Verification for Stabilized Applications

1. Greenfiber® requires maintaining an applied moisture reading between 18% and 22% during attic application. Use an MP20 Pump or equivalent available from Spray Insulation Components.
2. Use of the GE Protimeter Mini® BLD2000 Moisture Meter partnered with a GE extended probe part number BLD5070 is required. You must follow the manufacturer's instructions for these items.
3. Gently insert the dual pin probe to approximately mid-depth into the insulation. Withdraw the probe ¼ inch before taking and recording the reading. This prevents product over-compaction at the tip from giving a false conductivity reading. Continue this same procedure for each randomly selected testing location.
4. Clean excess buildup inside the nozzle after every 40 bags applied. Check to make sure tips are free of debris.
5. Due to the variability of pH levels in various water sources it is important to sample the primary water source to be used in the application of Greenfiber's INS500 and INS500CAN stabilized insulation. The pH of the water needs to be below 7.2. If the pH goes above this number, do not install either product mentioned above and contact your Greenfiber® Technical Service person for advice on product change. The incorrect water pH will void any claims with Greenfiber®.



## Troubleshooting Guide for Greenfiber® SANCTUARY® Defense Insulation Attic Applications - Contractor

Problem	Cause	Solution
Coverage	Material too wet	Maintain moisture between 18% and 22%.
		Adjust water pump. Normal settings are between 125-175 psi when using 4003 and 4002 tips.
		Adjust feed gate to increase material flow.
	Incorrect square footage	Measure house and compare to work order.
		Calculate number of bags from coverage chart based on accurate square footage. Confirm number of bags actually used.
	Incorrect number of inches installed	Ensure attic rulers were installed every 300 sq. ft. per code requirements.
The applicator must install both the minimum number of bags per 1,000 sq. ft. and the minimum installed thickness to ensure the stated R-value has been reached.		
	Lightweight, wet or hard bags	Return trailer to plant and replace with new trailer.
Settling	Insufficient water to stabilize material	Maintain moisture reading between 18% and 22%.
	Water tips are too large	Use smaller tips at higher psi to ensure water stream penetrates material flow.
	Pump psi is too low	Normal pump settings are 125-175 psi when using 4003 and 4002 tips.
Hose clogging	Too much material flow	Close feed gate a little at a time (in half inch increments).
	Too much water flow	Lower psi or increase material flow a little at a time. Normal settings are between 125-175 psi when using 4003 and 4002 tips.
	Product buildup in hose	Take a sturdy stick to knock the insulation loose 10 feet below nozzle back to nozzle. Clean excess build up inside the nozzle after every 40 bags applied. Check to make sure tips are free of debris.
	Air pressure is too low	Increase air pressure in small increments.
Dust	Tips installed incorrectly	Make sure tips are installed vertically to material flow.
	Tips clogged	Clean tips. Do not use metal wire to clean tips, as this will damage tips. Use a wooden toothpick or broom straw.
	Water pressure is low	Increase water pressure in 10 psi increments.
	Air pressure is too high	Proper balance between material flow and air will reduce dust. Try reducing air pressure slightly or increasing material flow slightly.
	Pump is not running	Make sure bypass valve on pump (located under pump pressure valve) is in "on" position.
	Clogged water filter	Check and clean water filter.
Water in hose	Faulty check valve	Replace check valve.

# Installation Control Log for SANCTUARY® Defense by Greenfiber®

Completed By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Builder Name \_\_\_\_\_ Development \_\_\_\_\_  
 Development \_\_\_\_\_ Contractor \_\_\_\_\_  
 Address \_\_\_\_\_ Truck Number \_\_\_\_\_  
 Lot # \_\_\_\_\_ Lead Installer \_\_\_\_\_

## Moisture Readings

1. Install insulation at the minimum number of bags per 1000 sq.ft. and the minimum installed thickness to ensure the stated R-value has been reached.
2. Take one moisture reading within first five minutes of blowing and document below.
3. Document a second reading at completion of installation.

Reading #	1	2
Moisture Reading		

## Notes

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