GroundBreaker™ **FRP** Foundation Insulation & Protection Liner

Rev. 04 9/19

Please Read Disclaimers:

PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION !!

These guidelines are provided in good faith to help prevent any problems caused by common errors in installation. The manufacturer and/or distributor of this product shall not be held responsible for installation actions taken or not taken. There are many details of installation that are assumed to be general construction knowledge to experienced installer which are not included in these instructions. These installation guidelines are intended to be strictly recommendations and are NOT to serve as a step-by-step, fail-safe installation checklist. Selection of an experienced installer is the sole responsibility of the project owner and architect.

Nudo Products, Inc. does not accept any responsibility for job failure resulting from or associated with improper site environmental conditions.

| Safety Instructions: | When cutting or drilling, always wear protective glasses or goggles and a face mask which covers the face and mouth. Itching due to fibers may be avoided by the use of barrier creams on exposed skin areas. |
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| Tools Needed | Circular saw with fine tooth carbide tipped saw blade Hammer drill with masonry F - Bits (.257") Trim Cutter Wire Brush |
| Materials Needed | GroundBreaker[™] Protection Liner 1', 2' or 4' x 50' Rolls 3-inch Stainless Roofing Nails or Nylon Rivets 1/4" x 2" or 3" |
| Needed | Hammer Heavy duty construction adhesive (optional) Trowel recommended by adhesive manufacturer (optional) Personal protection equipment (goggles & mask) Tape measure Shovel Division, Corner Angles and J-Channel Trim (optional) |
| Preparation: Storage | All GroundBreaker [™] Foundation and Insulation Protection Liner rolls should be stored on a solid, flat, dry surface. |
| Prior to Installation | Installation should NOT begin until you contact your utility company to determine location of gas and power lines. Before installing remove packaging materials. Allow the panels to acclimate to the temperature and humidity for 48 hours before installing. Dig a trench 4" to 6" inches down along-side the foundation. Placing the liner partially below grade will help control energy loss. |
| Exterior Wall | Now that the foundation is exposed, take a wire brush and remove any |
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Preparation dirt or loose particles from the foundation. This is extremely important if you plan to use adhesive to fasten the liner to the insulation or foundation. Please read adhesive manufacturer's recommendation for further preparation not covered in this paragraph. Liner should only be installed to solid foundation surfaces or over insulation.

Pre-Installation Inspection

Liner should be inspected upon receipt. Nudo Products, Inc. inspects composite panels for physical and cosmetic abnormalities prior to shipment; however it is the installer's responsibility to fully inspect all liner rolls for defects prior to installation. If the liner rolls are not acceptable, please contact Nudo Products, Inc. customer services immediately. DO NOT INSTALL QUESTIONABLE LINER! Nudo Corporation will NOT be responsible for installation or removal cost of unacceptable liner.



Measure Area. Set true plumb line. If the siding on your home does not extend out far enough to cover the top of the insulation liner, a complementary J-Channel (V-1) can be used to assist in keeping the liner snug against the foundation and provide a finished edge. Liner should be pre-fit (and pre-drilled with oversized holes if using rivets) prior to fastening and/or adhering to substrate. Optional: adhesive should be applied AFTER all cutting and drilling is complete.

| Installation Method | Trim liner to fit and cut out any openings if applicable. Measure for rivet placement (as needed) and pre-drill holes using masonry bit. Install liner under the mudsill or siding Fasten top of edge of liner under the siding, 12" -16" inches apart, using stainless roofing nails, or nylon rivets, while allowing the bottom edge to hang freely In addition to mechanically fastening, if you choose to adhere liner to insulation or solid wall please follow adhesive manufacturer's recommendations. Make sure adhesive is applied to liner prior to attaching to foundation with mechanical fasteners. Press liner firmly against the foundation and immediately backfill. This will hold the liner firmly in place. If using an end cap (V-1) on top liner, slide it completely on to liner prior to adhering to wall Continue the method working in one direction around the foundation, cutting and joining the liner if necessary, using (V-3) at joints, (V-13) trim at inside corners, & (V-15) trim at outside corners factening to the wall or over insulation. Trim |
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| | corners fastening to the wall or over insulation. Trim coordinating color (720) Dark Gray. (Please not vinyl trim and rivets are not UV resistant and may fade over time). |

Panel Sold Wall Pin Rivet Jac Pin Rivet Jac GroundBreaker[™] Foundation and Insulation Protection Liner should be installed with non-corroding fasteners, nylon pin rivets, or stainless roofing nails. Fasteners should be installed to fit snug, but should not be over tightened. Carefully select the proper length and width of rivet fastener for foundation only projects or insulation over foundation projects.



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Molding



The method of adhering, although optional, should be determined by the substrate adhering to. Typically using mechanical fasteners exclusively will suffice, but sometimes a combination of both may be necessary. You should use construction grade adhesive that is recommended for your condition and have 100% coverage when applying. Adhesive should be applied to the entire back side of the liner 1/4" (6.4 mm) thick. Follow the adhesive manufacturer's recommendation for trowel, conditions and application methods. After applying adhesive, it is imperative to secure the GroundBreaker[™] protection liner with an adjustable rolling tool to properly "set" the liner to the substrate.

Vinyl moldings can be used for installation. Cut moldings as needed for proper fit. The divider joint (V-3), cap (V-1) & (V-15) outside corner and (V-13) inside corner moldings may need to be cut to accommodate finishes. Place moldings on liner before fastening edges, if required.

Spacing



All GroundBreaker[™] protection liners will have some expansion and contraction due to changes in temperature and environment. When use of moldings is required to join liners together, it is important to allow a 1/8" gap between liners and division bars. Pre-drilled holes should be slightly larger than the diameter of fastener to allow for normal expansion and contraction. Note: Allow for expansion of GroundBreaker[™] liner when installing around pipes, conduits, electrical outlets, etc.

Finish Work Make sure that all edges of GroundBreaker[™] have been finished if required and that the back-fill is firmly pressing against liner under grade to keep securely in place.

