

High Performance Decorative Panels



Nudo CeramicSteel™ Installation Guidelines

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 installers, 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.

Inspection: Upon delivery carefully inspect all cartons, packages, pallets, and protective wrap for damage or shortage. Open and inspect suspect packages, cartons or wrapped pallets for damage. Contact shipper immediately to report any damaged or missing materials. Failure to do so shall be at the sole risk of the installer. If defective materials are discovered, notify Nudo @ 800-826-4132 immediately (24 hours of receipt of panels). Failure to do so shall be at the sole risk of the installer.

Uses & Applications: Nudo CeramicSteel panels with factory bonded Ceramic Steel overlay to High Density Fiberboard (HDF), Aluminum Composite (ACM), or Cement Board substrate. It should NOT be applied directly to wood or metal studs. Wall surfaces should be clean, flat, dry, and smooth. Uneven wall surfaces should be corrected for best result. Following adhesive manufacturer's application guidelines when choosing proper adhesives for the particular substrate you are bonding to is highly recommended.

RESPONSIVENESS

CONSISTENCY

SOLUTIONS

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.

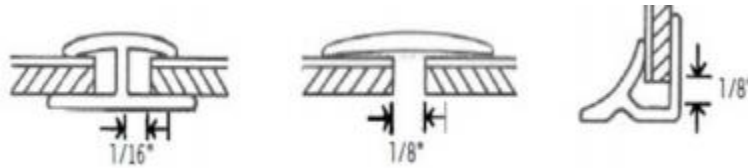
<p>Tools Needed</p>	<ul style="list-style-type: none"> • Power panel saw or skill saw with metal cutting, high tooth count carbide or tungsten tipped blades (liberally lubricated with blade wax). (See Field Cutting Instructions) • Power drill with metal cutting carbide or tungsten bits. • Trowel recommended by adhesive supplier. • Trim Cutters • Pencil • Tape Measure • Sawhorses • Painter's Tape • Ladders or Scaffolding
<p>Materials Needed</p>	<ul style="list-style-type: none"> • Nudo CeramicSteel Panels • Heavy Duty Construction Adhesive • Non-abrasive cleaner, soap and water, mineral spirits, for use in clean-up • Seam Finishing: PVC molding, aluminum trim, color matched caulking (Optional) • Silicone Sealant (penetrations and exposed edges) • Sandpaper for roughing up walls. • Rags • Personal Protective Equipment (goggles & mask) • Plywood Larger than Panels

Storage & Preparation: All Nudo CeramicSteel panels should be stored indoors flat above floor level on a solid, flat, dry, frost-free surface. Do not stand panels on edge or stack on fresh concrete floor or any other surface that emits moisture. Lay panels flat with proper support on the ends of panels. Optimum storage conditions are 60°F (16°C) to 75°F (24°C) and 35% to 55% relative humidity.

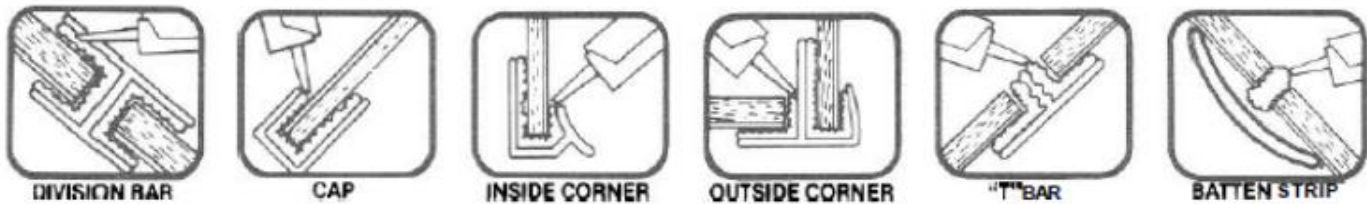


Nudo CeramicSteel™

Expansion & Contraction: Nudo CeramicSteel panels will have some expansion and contraction due to changes in temperature and environment. It is important to allow a 1/8" gap at the ceiling, panel base and gap between panels and division bars. If face mounted moldings, allow more space for expansion and contraction of composite panels longer than 8' and in areas with high fluctuations in temperature. Pre-drilled holes should be slightly larger than the diameter of fastener shank to allow for normal expansion and contraction. Note: Allow for expansion of composite panels when installing around pipes, conduits, electrical outlets, etc.



Molding & Sealants: Vinyl and Aluminum moldings can be used for installation. Use of moldings and silicone sealant with panels having appropriate substrates is recommended to achieve a moisture resistant installation. Cut molding to size and place silicone sealant into channel of molding during installation. Place molding on panel before fastening and place small amount of silicone into hold before fastening, if required see below diagram.



In high moisture and frequent wash down area(s), silicone should be placed between molding and floor to prevent moisture from penetrating back of panel substrate. If no moldings are used, silicone sealant should be placed in gaps at floor, ceiling and between panels for moisture resistant installation. Remove excess silicone during installation or trim off silicone after it has cured.

Caution: Failure to use moldings and sealant may cause panel deterioration. In high moisture areas or in standing water, edge swelling and moisture absorption by substrate will occur if appropriate sealants are not used properly. Install a vapor barrier behind panel installation in high moisture areas or use panel with a factory applied vapor barrier. Proper selection of substrate is also required in high moisture areas. This requirement is necessary for either interior or exterior installations.



Prior to Installation: Carefully inspect all Nudo CeramicSteel panels prior to installation. If panels are defective, notify Nudo Customer Service at 800.826.4132. Failure to do so shall be at the sole risk of the installer. Panel should be checked for excessive pitting, telegraphing core materials, and delamination. Due to materials and lamination process, if waterjet cut edges have not been requested prior to receipt of panels, the layup edge tolerance is +/- 1/8". The porcelain can hang off the panel edge or be back from the panel edge 1/8". Panels may also vary in color, consistency, and tone. These variations are not to be considered defects. Make sure that all exposed edges and penetrations are sealed with silicone sealant. Installation should NOT begin until building is enclosed (windows and doors installed). Permanent heating and cooling equipment shall be in operation, and residual moisture from plaster, concrete, etc. shall be dissipated. Prior to installation, the installer must determine that the environmental conditions meet or exceeds all requirements specified in the installation guidelines. Before installing, remove packaging materials, but Do Not Remove the protective sheet on face of panels. Allow the panels to acclimate to the room temperature and humidity for 48 hours before installing. Acclimation temperature range should be 60° to 75°F (16°C to 24°) and relative humidity should be 35% to 55%. Ideally, the room temperature and humidity during acclimation and installation should be the same as the final operational conditions.

Wall Preparation: Panels should only be installed over solid wall surfaces (gypsum board, concrete board, plywood, cinder block, etc.). Walls should be flat and even. Remove high spots and fill in low spots prior to beginning installation. Remove wallpaper, soluble or loose paint, and other foreign matter that may interfere with the adhesive bond. The wall substrate must be dry and free from dirt, dust and grease. Painted surfaces will not allow water-based adhesives to dry. The substrate must be porous to enable the adhesive to cure and achieve full bond strength. Painted surfaces must be perforated to rough up the wall or gouged with a minimum of 20- grit heavy duty sandpaper to break the moisture barrier of the paint. All loose paint and dirt must be removed prior to installation. New gypsum board or drywall should NOT be painted or primed. Tapered joints need only a fill and taped coating using a setting joint compound. A finish coat is not necessary or desirable. Any extremely uneven areas should be filled. Please read adhesive manufacturer's recommendation for further preparation not covered in this paragraph.

Environmental Conditions: In high humidity, acclimate panels in operational room conditions for 48 hours prior to installation. It is imperative that moisture is sealed at the entry points with silicone sealant. Failure to do so may result in the substrate warping, curling, delamination, or bond line separation. Use an adhesive that is recommended for high humidity, following the manufacturer's application guidelines. Check with the local building codes for specific requirements. In low temperature conditions, acclimate panels in operational room conditions for 48 hours prior to installation. Use an adhesive recommended for low temperature conditions, following the manufacturer's application guidelines. Check with the local building codes for specific requirements. Do NOT use composite panels, in high temperature conditions, exceeding 130° F (55°C). Prolonged exposure to direct sunlight MAY CAUSE the panels to fade and/or rapid expansion. Please use extreme caution when installing panels in these types of environments.

Pre-Installation Inspection: Panels 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 panels for defects prior to installation. If the panels are not acceptable, please contact Nudo Products, Inc. customer services immediately. DO NOT INSTALL QUESTIONABLE PANELS! Nudo Corporation will NOT be responsible for installation or removal cost of unacceptable panels.

Pre-Installation Planning: Measure Area. Set true plumb line. Panels should be pre-fit (and predrilled if rivets are required) prior to fastening and/or adhering to substrate. Adhesive should be applied AFTER all cutting and drilling is complete. Cove base molding should not restrict panel, but allow for expansion and contraction. Poured molding should be completed prior to installation of panels. Cut panels ¼" short of where the base molding will extend.

Field Cutting: NUDO Ceramicsteel panels can be cut under field conditions. The following procedures should be followed in order to achieve satisfactory results.

Length & Width Cuts: Cuts can be made using various types of cutting saws, for example the Kett Master Saw Model KSV- 33AM, or similar model manufactured by the Kett® Tool Company (513) 271- 0333. A 2" X 60-tooth (part no.157-60) or 2-1/2" X 60-tooth (part no.157-66) blade should be used in order to achieve satisfactory cutting results. Cuts can also be made using at standard 7-1/4" X 5/8" arbor circular saw with a 24 or 40- tooth carbide tipped blade (similar to Hilti® model SB-CC #93826).

The panels should be cut with the finish side up. Cuts should be made with the protective poly film still on the finish. If the film has been removed, apply a strip of masking tape to the area being cut in order to minimize chipping. Blade wax can be used for lubrication, blade lubricating oils are not recommended. Metal burrs left after cutting can be removed with a file.

Penetration Cuts: Circular penetrations can be made using a standard high-speed drill and metal cutting blade. All penetrations should be made with the finish side up, through the protective polyfilm covering. If the film has been removed, apply a strip of masking tape to the area being drilled. Square penetrations for light switches and electrical outlets can be made by drilling a pilot hole and cutting with a jig saw using a metal cutting blade with 14 TPI (teeth per inch). Blade wax can be used for lubrication, blade lubricating oils are not recommended. Metal burrs left after cutting can be removed with a file.

Note: The type of core material being cut, not the Ceramicsteel, determines the number of cuts which can be obtained from a single saw blade. Typically, panels with gypsum and mineral fiber cement board cores tend to dull blades faster than panels with wood fiber cores such as particle board and hardboard. Care should always be taken to use sharp saw blades in order to obtain the best possible results.

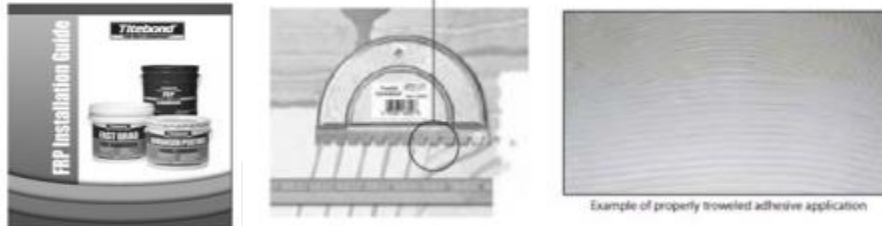
All Cut Edges of panels must be sealed with silicone or other sealant and/or covered by a trim.

RESPONSIVENESS

CONSISTENCY

SOLUTIONS

Adhesive: 100% adhesive coverage is required when installing Allure panels. Titebond adhesives are recommended. Refer to adhesive manufacturer's guidelines for adhesive acceptable for use on drywall, plywood, OSB and gypsum walls.



Installation Reminders:

1. Follow safety and fire guidelines during installation and use of panels. Compliance with local building codes is recommended.
2. First panel installed should be set true with plumb line. Check plumb line during installation.
3. Pre-condition panels prior to installation and allow for expansion and contraction during installation.
4. DO NOT REMOVE protective film until after installation. [If applicable].
5. Trim panel to fit and cut out any fixture openings.
6. Seal any exposed edges and penetrations with silicone sealant.
7. Use moldings, silicone, fasteners, and adhesive with panels for best installation.
8. Remove excess silicone during installation or trim after silicone is cured.
9. Place molding on panels, if required before fastening panels (ie. CAP, ISC, OSC, etc.).
10. Cut moldings as needed. For example, division bar may need to be cut to accommodate for a ceiling or base cove.
11. Insert panel into inside corner molding, place panel into corner of wall and align with plumb line.
12. Cut panels, if required, for proper installation.
13. If using an end cap on top or bottom of panels, slide it completely on to panel prior to adhering to wall.
14. Place panel on wall leaving appropriate room for expansion and contraction.
15. Once panel is placed on wall, use roller to remove any air pockets.
16. Install dividing trim on first panel.
17. Apply adhesive to the next panel, slide into the first panel division bar, align with plumb line, and use roller to remove any air bubbles.
18. Repeat with next panel.

Installation Reminders (Cont.):

19. Prior to installing the last panel on the first wall, insert an inside corner on the leading edge of the panel. The first panel on the new wall will slide into the last panels inside corner of the existing wall, completing the transition.
20. Continue the method working in one direction around the room.
21. Use hold-down clips if panels are used in a suspended ceiling.
22. Clean panels, if required, after installation.

Finish Work: Remove all adhesive residues, cleaning panels thoroughly with warm water, a non-abrasive detergent and cloth. For cleaning with solvent based adhesive, use mineral spirits to remove residue. Installation should begin and end in an inside corner wherever possible.

Cleaning Instructions: Nudo CeramicSteel panels are designed for minimum care and maintenance. When cleaning panels they should be washed with a light detergent. Panels may also be cleaned with steam, high pressure sprayers that are properly operated (following manufacture's guidelines) or soap and water. A 5% or 10% Tri Sodium Phosphate water solutions may also be used to clean panels. Rinse thoroughly after applying. Hard water deposits may be cleaned with a 10% solution of Acetic Acid in cold water. Rinse thoroughly after applying. It is strongly recommended not to use abrasive cleaners when cleaning panels. Adhesive can be removed from panels surface by using mineral spirits or equivalent solvent-based cleaners.