

Duro-Therm™ panels

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.

Uses & Applications:

Duro-Therm™ panels are laminated with (PPD) and overlay to fluted polypropylene. It may be applied directly to wood or metal studs (proper gauge studs must be used for panel selected), furring strips, solid walls, or ceiling joists.

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.

Tools Needed

- Power saws with carbide tipped saw blades
- Power drill with carbide bits
- Pencil

Materials Needed

- Duro-Therm™ panels
- Non-abrasive cleaner, soap and water, mineral spirits, for use in clean-up
- Rags
- Personal protection equipment (goggles & mask)
- Tape measure
- Saw horses
- Painter's tape
- Plywood larger than panels
- Ladders or scaffolding

Storage and Preparation

All Duro-Therm™ panels should be stored indoors in a dry area. Do not store panels outdoors. Panels should be unwrapped and removed from skid and stacked on a flat, dry surface. Do not stand panels on edge or stack on fresh concrete floor or any other surface that emits moisture. Panel should be acclimated to temperature and humidity of space for at least 24 hours prior to installation. Ideally, the room temperature and humidity during acclimation and installation should be the same as the final operation conditions. Optimum storage conditions are 60°F (16°C) to 75°F (24°C) and 35% to 55% relative humidity.



50 West Stoevers Ave. • Myerstown, PA 17067
1-800-845-3374 • www.farmerboyag.com

Expansion & Contraction

Duro-Therm™ panels will expand and contract. Provide an 1/8" gap at ceiling, base and gap between panels. If face mounted moldings (T-Bar, Batten, 2-Piece Division bar, etc...) allow 1/8 gap between panels (see diagram). Allow more space for expansion and contraction of panels longer than 8' and in area(s) where high fluctuation in temperature and humidity occur and when installing around pipes, conduits, electrical outlets, etc.

Molding & Sealants

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.



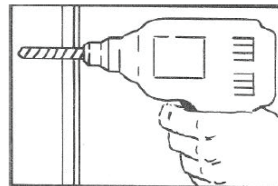
In high moisture and frequent wash down area(s), silicone should be placed between molding and floor to prevent moisture from escaping behind panel. If no moldings are used, silicone sealant should be placed in gaps at floor, ceiling and between panels for moisture resistant installation. Remove excess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

Fasteners

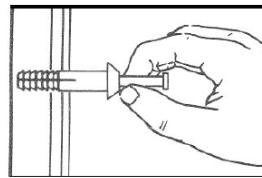


All panels should be installed with non-corroding fasteners. Plastic pin rivets, chrome pin rivets, one piece nylon rivets, stainless nails, one stepper fasteners or screws are recommended. See below. Fasteners should be installed to fit snug but should not be over-tightened. Always select proper fasteners for installation.

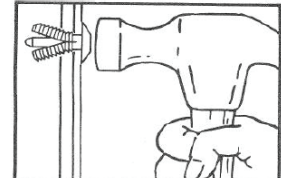
Plastic pin rivet fastens panel to wood, metal, drywall, concrete, insulation materials, etc. See diagram below:



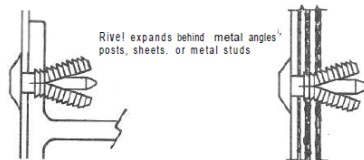
Easy to use Drill a hole (.257"-F Bit)



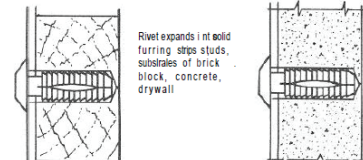
Remove dust and filings from the hole. Insert rivet.



Hit the pin. The shank expands into or behind material for a tight, secure grip



Rivet expands behind metal angles, posts, sheets, or metal studs



Rivet expands into solid furring strips, studs, substrates of brick block, concrete, drywall

Note: If pin in rivet does not drive flush when fastening into solid materials and applications where expansion may be restricted, larger hole is required, use .261" - G bit.



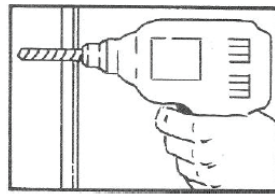
Chrome pin rivet has high shear strength but should be used in low moisture areas. Installation is the same as plastic pin rivet above.



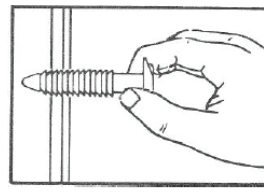
One piece-nylon rivet fastens panels to any wood substrate or wood stud. See diagram below:



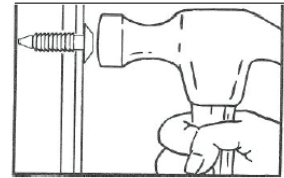
50 West Stoevers Ave. • Myerstown, PA 17067
1-800-845-3374 • www.farmerboyag.com



Easy to use. Drill a hole (.281"-K Bit)



Remove dust and filings from the hole. Insert rivet.



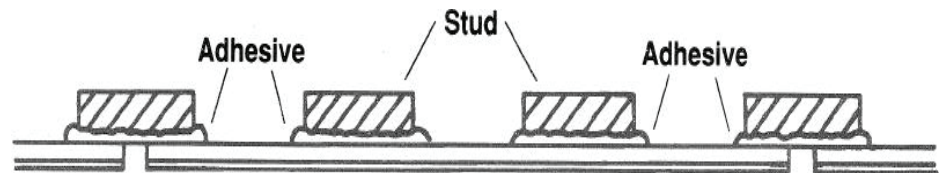
Drive rivet flush

Adhesives

The use of adhesive when installing panels is recommended along with fasteners.

Titebond adhesives are recommended. Refer to adhesive manufacturers guidelines for adhesive acceptable for use on drywall, plywood, OSB and gypsum walls.

For best installation, adhesive should be used on studs in conjunction with fasteners when installing Duro-Therm™ panel. See below diagram.



Fastener Layout

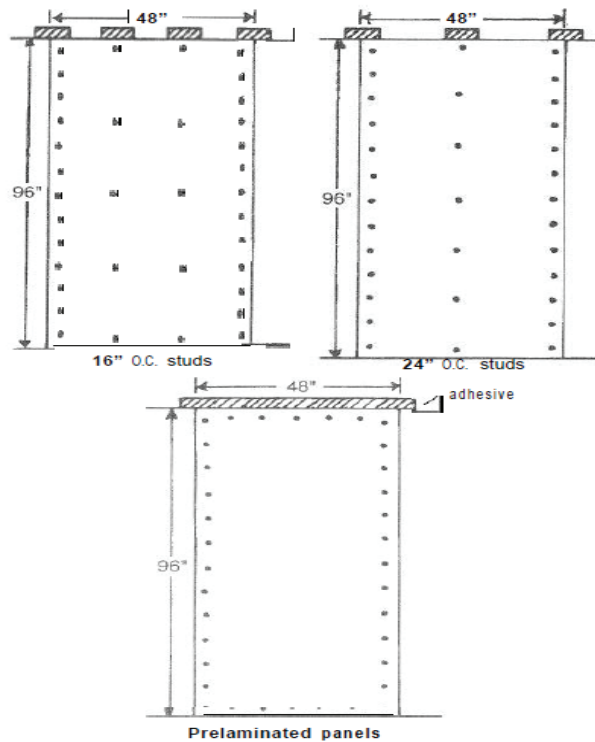
1. Duro-Therm™ may be installed on studs, ceiling joist, furring strips or solid wall and ceilings.
2. When Duro-Therm™ is installed on studs, ceiling joists and furring strips, the substrate should be 10mm (.400) min. and the support members placement should not exceed 16" on center. When stud walls are constructed 24" or more on center, furring strips placed 16" on center are recommended.
3. All Duro-Therm™ edges should be supported through placement of additional studs, headers or cross-members furring strips.
4. The fluted substrate of Duro-Therm™ may be run either horizontal or vertically.
5. Due to the pliable nature of Duro-Therm™ substrate, care should be taken in setting drive pin rivets to avoid indenting the fiberglass face particularly at panel edges. Consideration should be given to using concealed edge fastener.
6. In high temperatures, fiberglass will expand .040" in 4' width and .080" in 8' length. This expected expansion and again the pliable nature of the fluted polypropylene substrate make strict adherence to the 1/8" panel separation rule at all edges even more important when installing Duro-Therm™. Also, after drilling each fastener hole, re-drill the panel only 1/8" larger. This permits expansion or contraction at the fastener location as well.

Note: If panel deflects from center stud(s) after this type of installation, fasteners will be required on center stud(s). The 1/8" edge separation rule may make it necessary to trim panel width or length occasionally as installation progresses along a long wall with support members evenly spaced at 16" or 24".

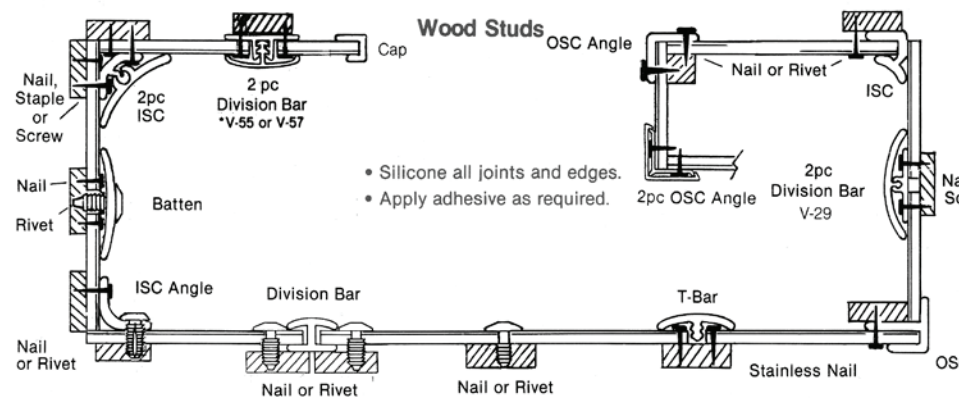


50 West Stoevers Ave. • Myerstown, PA 17067
1-800-845-3374 • www.farmerboyag.com

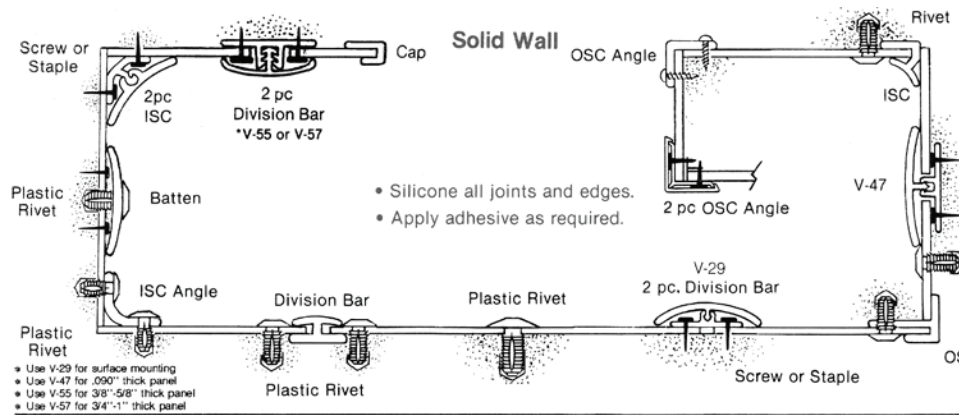
Mechanical Fastening Pattern



Top View of Panel Installation

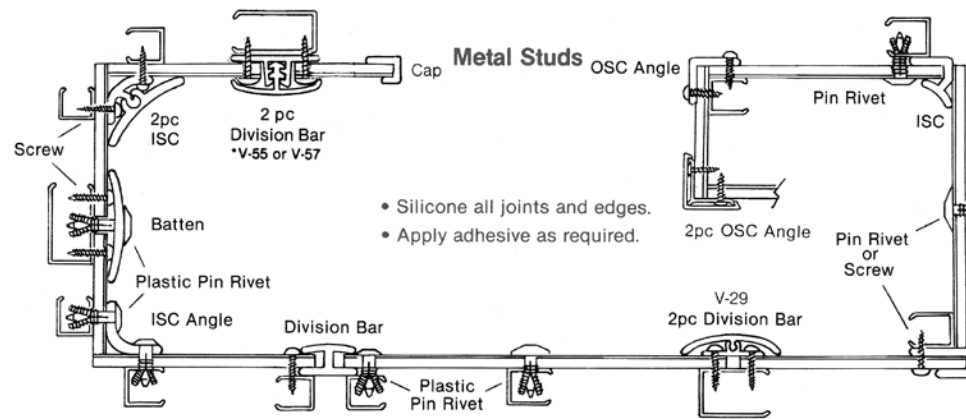


Solid Wall Installation



50 West Stoevers Ave. • Myerstown, PA 17067
1-800-845-3374 • www.farmerboyag.com

Metal Stud Installation



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. Use moldings, silicone, fasteners, and adhesive with panels for best installation.
5. Remove excess silicone during installation or trim after silicone is cured.
6. Place molding on panels, if required before fastening panels (ie. CAP, ISC, OSC, etc.).
7. Cut moldings as needed. For example, division bar may need to be cut in accommodate a ceiling or base cove.
8. Cut panels, if required, for proper installation.
9. Use hold-down clips if panels are used in a suspended ceiling.
10. Span studs or joists properly.
11. Clean panels, if required, after installation.

Cleaning Instructions

Duro-Therm™ panels are designed for minimum care and maintenance. When cleaning panels they should be washed with a light detergent. Panels may also be cleaning 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.

Note: Duro-Therm™ and components made of aluminum, polystyrene foam, vinyl and wood may be combustible and accordingly should be used in compliance with local codes and insurance regulations.



50 West Stoevers Ave. • Myerstown, PA 17067
1-800-845-3374 • www.farmerboyag.com