



Installation Instructions and Guidelines For: Glasteel Liner Panel

Read all instructions before installation. Glasteel liner panels should only be installed over solid wall surfaces (wood, plasterboard, etc.). Wall Surfaces should be clean, flat, dry and smooth. Uneven wall surfaces should be corrected for best results. Liner Panel will form to contour of the wall surface to which it is attached. Drop in ceiling panels are available. Clips are recommended to hold ceiling panels in place.

NOTE: All Glasteel™ Liner Panels are U.S.D.A. approved.

Inspection, Storage and Preparation

Panel should be inspected promptly upon receipt in a well lit area to insure customer satisfaction with the liner panel before installation. Panels should only be stored in a dry area. Do not store panels outdoors. Panel should be unwrapped and removed for skid and stacked on a flat, dry surface. Normal fire-safety precautions should be taken when storing and using panels.

Tools

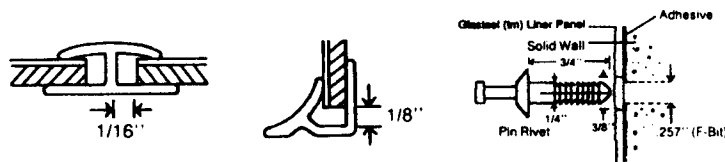
Panels can be cut using power saws with carbide tip blades. Liner panels may also be cut with a masonry blade.

Panels may be drilled for fastening and metal drill bit. A masonry bit should be used when drilling in concrete is required. If drill bit becomes worn during installation, replace with a new one.

Caution: Protect eyes with goggles and cover mouth with filter mask when cutting Glasteel liner panels.

Expansion & Contraction

Glasteel liner Panels will expand and contract due to changes in temperature. Allow a 1/8" gap at ceiling and base. Allow 1/16" gap between panel and division bar. If face mounted moldings (T-Bar, Batten, two piece division bar, etc.) are used allow a 1/8" gap between panels. See diagrams below.



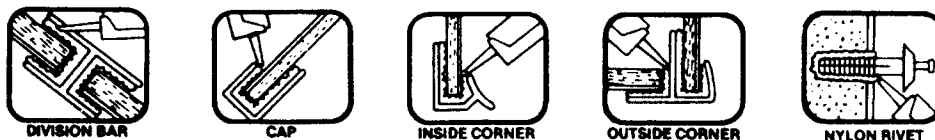
Allow more space for expansion and contraction of panels longer than 8' and in area(s) with high fluctuations in temperature. Pre-drilled holes for Glasteel Liner Panel should be slightly larger than diameter of fastener shank to allow for normal expansion and contraction. See diagram.

NOTE: Allow for expansion of panels when installing around pipes, conduits electrical outlets, etc.

Moldings & Sealants

Use of moldings and silicone sealant with panels is recommended to achieve a moisture resistant installation. Moldings also give installation a "finished" appearance.

Cut molding to size and place silicone sealant into channel of moldings during installation. Place molding on panel before fastening, if required. See diagrams below.



In high moisture and frequent washdown area(s) silicone should be placed between molding and floor to prevent moisture from penetrating back of panel substrate. On cement floors use a self-priming sealant (i.e. Mono).

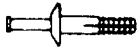
If no moldings are used, silicone sealant should be placed in gaps at floor, ceiling and between

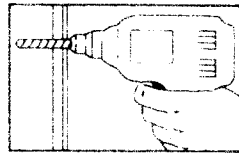
panels. If no moldings are used, silicone sealant should be placed in gaps at floor, ceiling and between panels for moisture resistant installation. Remove excess silicones during installation or trim off after silicone has cured.

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 moldings and sealant are not used.

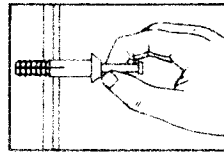
Fasteners

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

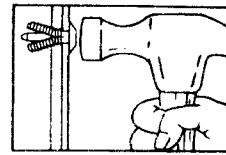
 Plastic Pin Rivet fastens panel to wood, metal, drywall, concrete, insulation, material, etc. See diagrams below.



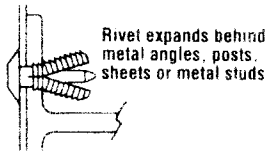
Easy to use. Drill a hole (.275" -F Bit)



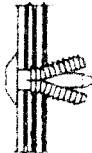
Remove dust and filings from the hole. Insert rivet.



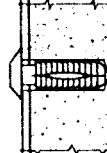
Hit the pin. The shank expands into or behind material for a tight secure grip.




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




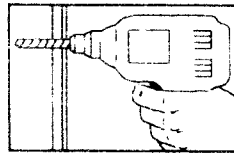
Rivet expands into solid furring strips, studs, substrates or brick, block concrete, drywall.



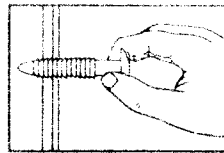
NOTE: If pin in rivet does not drive flush when fastening into solid materials and applications where expansion may be restricted, use .261" -G bit.

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

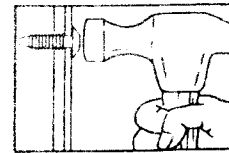
 One piece nylon rivet fastens panel to any wood substrate or wood stud. See diagrams below.



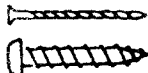
Easy to use. Drill a hole (.261" -K Bit)



Remove dust and filings from the hole. Insert rivet.



Drive rivet flush.

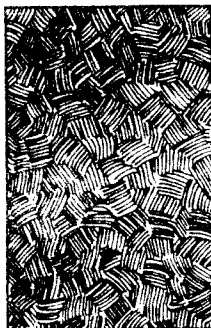
 Stainless nails or screws can be used to install panels.

Adhesives

The use of general purpose construction adhesive when installing panels is recommended along with fasteners. Whenever adhesive is used, follow the manufacturer's instructions carefully as many adhesives are flammable and some may not be compatible with paneling.

Glasteel Liner Panels may be successfully installed over plaster board (drywall or gypsum) using only adhesive. However, it is recommended to use fasteners along with adhesive for best results. Adhesive failure is not panel failure.

Adhesive should be applied to wall surface following adhesive manufacturer's recommendations. Typical applications are shown below.

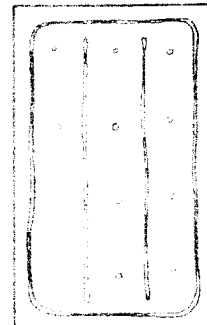


Trowel Application



Adhesive

Trowel



Cartridge Application



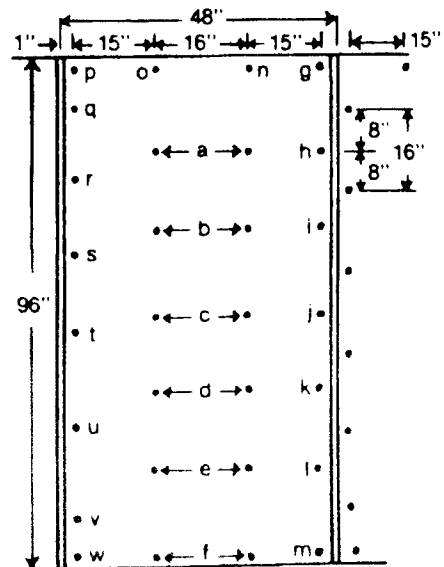
Adhesive

After applying adhesive tap surfaces of panel with a rubber mallet or block of wood to aid bonding of adhesive to wall and panel.

Fastening/Fastener Layout

First panel installed should be set true with a plumb line.
 Check plumb line during installation.
 Do not fasten edges of panel until moldings are in place.
 (Except when using face mounted moldings).
 Glasteel Liner panel-fastener layout - solid wall

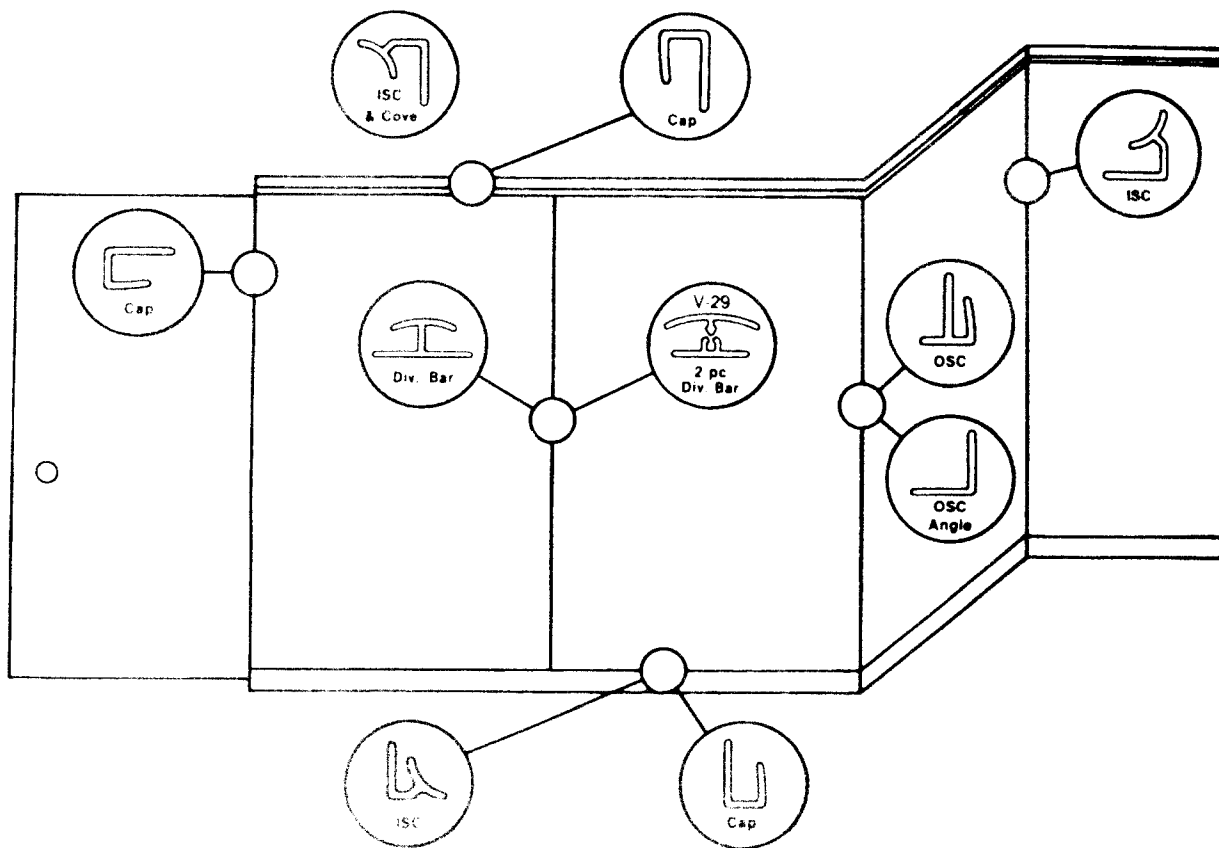
1. Fasten panel at center and work outward.
2. Fasteners based on 16" o.c.
3. Fasteners should be staggered on opposite panel edges and next to division bar for flat seam. See diagram at right.
4. Liner panels should be pre-drilled for fastener installation using a guide panel.



Solid wall, (fasten as indicated, in alphabetical order).

Molding Installations

The diagram below shows the various moldings that can be used with the Glasteel Liner Panels.



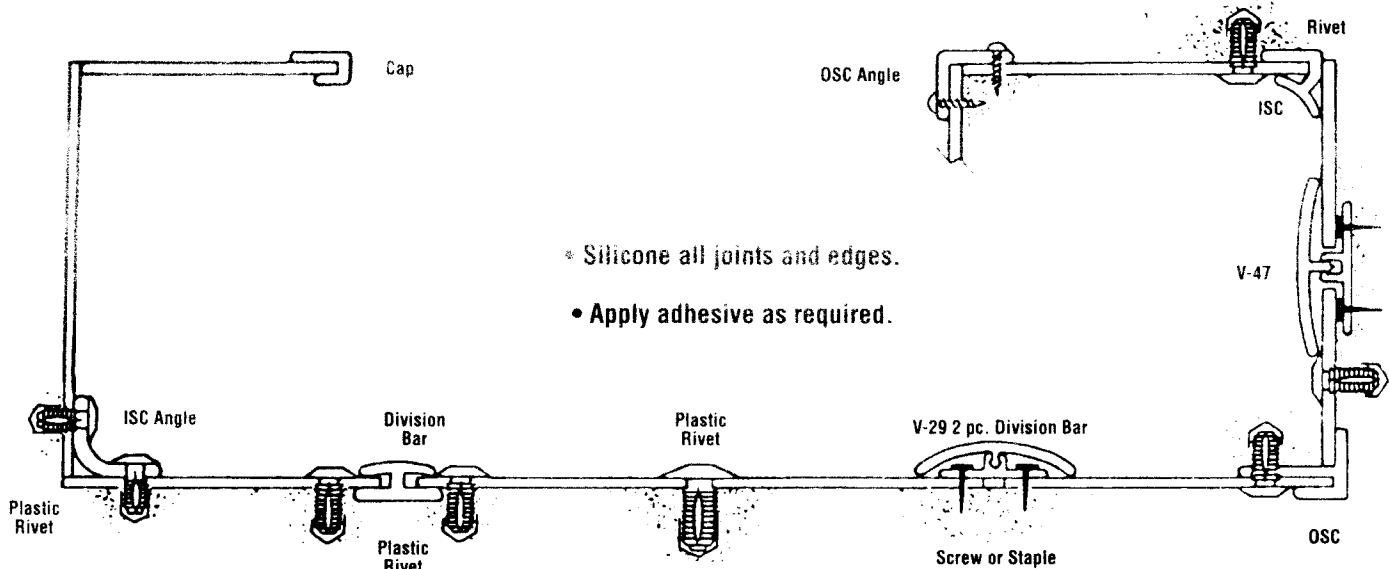
- A. Vinyl or aluminum moldings can be used in the above diagram.
- B. Vinyl moldings should not be used for exterior use.
- C. Vinyl moldings are USDA accepted, aluminum moldings should not be used where USDA acceptance is required.
- D. Cut moldings as needed for proper fit. The divider, ISC & OSC moldings may need to be cut to accommodate for ceiling and base moldings.
- E. Place molding on panel before fastening edges, if required.
- F. Always use moldings in high moisture areas.

NOTE: Glasteel Liner Panel 2-pc division bar may be mounted as shown in diagram at right.



Top View of Panel Installation

Solid Wall



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. Precondition 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 has cured.
6. Place molding on panel, if required, before fastening panel.
7. Cut moldings as needed. For example, division bar may need to be cut to 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. Clean panels, if required, after installation.

Cleaning Instructions

Glasteel Liner Panels are designed for minimum care and maintenance. When cleaning panels they should be washed with a light detergent such as Spic & Span, Pine Sol, Mr. Clean, etc. Panels may also be cleaned with steam, high pressure sprayers, or soap and water.

It is strongly recommended not to use abrasive cleaners when cleaning panels (i.e., SOS Pads, Ajax, Comet, etc.).

Following these instructions Glasteel Liner Panel will give a fine and lasting appearance for many years.

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