INSTALLATION INSTRUCTIONS SECTION 4: 0.5" PLASCORE HANG-ON LINER WALL SYSTEM

Instructions available in Spanish

THE FOLLOWING INFORMATION IS PROVIDED BY PLASCORE, INC. AS A GENERAL GUIDELINE FOR INSTALLATION OF THE PLASCORE 0.5" HANG-ON LINER WALL SYSTEM. THIS INFORMATION SHOULD BE REVIEWED PRIOR TO COMMENCING INSTALLATION. THE INFORMATION IS INTENDED TO COVER STANDARD INSTALLATION PRACTICES, AND MAY NOT COVER CUSTOM DETAILS SPECIFIC TO THE PARTICULAR PROJECT IN QUESTION. CONSULT PLASCORE INC. FOR QUESTIONS ON CUSTOM INSTALLATION APPLICATIONS.

1. RECEIVING MATERIAL

A. Materials are packed in crates which may be up to 3,600 lbs, and 200 inches long. Plascore advises that crates be handled by fork trucks with long forks and appropriate load ratings.

B. Standard shipping arrangements are made with box trucks to be unloaded at a shipping dock. Special arrangements can be made at an upcharge to ship materials on Flatbed trucks for side loading/unloading.

C. Crates will typically be stacked on the trucks to minimize freight costs. Considerations should be made to unload stacked crates in a safe and careful manner to avoid damage and injury.

D. Receiver should visibly inspect all crates as they are unloaded. Any crate damage should be noted on the bill of lading to facilitate a freight claim if product is found to be damaged.

E. Receiver should verify the packing slip matches the crate labels as they are unloaded. Notify Plascore immediately of any discrepancies.

F. Crates should be stored in a climate controlled area where they are protected from moisture, humidity, and temperature extremes.

(*CONSTRUCTION TIPS:)*

1. *Using short forks may result in crates tipping and being punctured by the end of the forks.*
2. *Hardware/Extrusion crates are typically built to be 4 way and handled from either side, however panel and door crates are built to be handled from the ends only. Please notify Plascore at the time the order is placed if Flat Bed trucks are required for side unloading so crates can be built to accommodate this.*
3. *Do not store crates under tarps outdoors. Tarps can become torn or lose their waterproofing characteristics quickly, allowing water to penetrate to the crates.*

2. UNCRATING/INSPECTING MATERIAL

A. Panels are packed with a protective film covering the cleanroom surfaces. All film should be left in place as long as possible to prevent damage.

B. All panels should be unloaded by two people lifting the panel straight up off of the stack. Dragging panels from the side of a crate will result in damage.

C. If damage to material is noted, stop unloading and notify Plascore immediately for further instruction. (Please reference Plascore submittals for material data sheets on acceptable product defects/tolerances)

D. It is advised that customers inventory material as they are uncrating it and notify Plascore immediately of any discrepancies from the crate label descriptions.

(CONSTRUCTION TIPS:)

1. *Remove all 4 sides from panel crates before removing the panels. This facilitates lifting panels straight upward instead of sliding them.*
2. *The use of panel suction cups may help in the handling of panels.*
3. *Protective film may show cuts or scratches; however, the panel may be undamaged underneath. Peel back the protective film in the area in question to determine if panels are actually damaged below.*
4. *Do not remove protective film until the panels have been allowed to acclimate to room temperature, and humidity is less than 50%. Allow a minimum of 36 hours of acclimation before removing film. Failure to follow these guidelines could result in adhesive residue being left behind on the panel surface. If adhesive residue is found on panels STOP removing film and contact Plascore immediately.*

3. INSTALLATION OF BASE TRACK

A. Locate base track part# M0727.

B. Install the base track against the studs or existing wall as shown in the Plascore details. The base track should be leveled at a nominal height of 4" from the floor. (fasteners provided by others, minimum 16" spacing).

C. Base track can be mitered or butt jointed at corners. Continuous lengths of base track should be butted together.

D. There should be a gap left in the base track at all doorways. Consult the submittal door drawings for overall door widths. Floortrack does not need to be tight to the door jamb, a tolerance of 1/4" can be left between the floortrack and door jamb.

(CONSTRUCTION TIPS:)

1. *Cuts can be made with a miter saw using a blade designed for cutting 0.80" thick steel..*
2. *It may be helpful to use a clamp to hold the base track in place once leveled during the fastening process.*
3. *It may be helpful to predrill holes in the base track once leveled to help with installation of screws.*

4. INSTALLATION OF CONTINUOUS EXTRUSIONS

A. Locate the continuous extrusion #E0091 that will be mounted to the wall substrate receiving liner wall.

B. These clips should be installed in three continuous horizontal rows for a ceiling height of 12' or less, or four horizontal rows if the ceiling height is over 12'.

C. The rows should be located in the following manner, measuring to the bottom of the clip. The locations must be accurate within 1/16" to correctly mate with the panel clips. CLIPS MUST BE LEVEL.

- Row 1 = 8" from the top of base track
- Row 2 = (Ceiling height divided by 2) from the top of the base track
- Row 3 = (Ceiling height minus 14") from the top of the base track

(If 4 rows are required, evenly space rows 2 and 3 between the bottom and top row.)

D. Fasten the continuous clips with a washer head screw that will not protrude past the step in the clip. Use the grooves in the extrusion to locate the fasteners, staggering from one groove to another. Fasteners should be located at every stud or a minimum of 24" on center. (Fasteners provided by others based on substrate to be fastened to).

(CONSTRUCTION TIPS:)

1. *Cuts can be made with a miter saw using a blade designed for aluminum.*
2. *It may be helpful to use a clamp to hold the extrusion in place once leveled during the fastening process.*
3. *It may be helpful to snap a chalk line to help locate the horizontal extrusion.*
4. *The location and level of the extrusion is critical to the fit up with the panel clips.*
5. *It may be necessary to shim between the extrusion and the substrate to help generate a flush, plumb wall.*
6. *Reference shop drawing details for clip orientation.*
7. *Clip locations may need to be adjusted back on panel cutouts, etc.*

5. 0.5" WALL PANEL PREPERATION

A. Determine a starting point to begin installing Plascore 0.5" Liner wall panels. The wall panels do not need to be installed progressively, however it helps to get tight seams if they are. Choose a starting point that allows the panels to be installed continuously from one end of the wall to the other, or from the middle out to the wall ends.

B. Locate the Plascore floor plan and/or the panel label key drawing to determine the next panel size required for installation. If referencing the panel label key drawing, the key will depict the panel number corresponding to a sticker located on each panel edge. Panels designated as "-cut" on the key indicate the panel is to be field cut in the width. If referencing the floor plan, you can use the dimensions on the plan to find the correct sized panel.

C. If any cuts are required, move panels to an area designated for panel cutting, and make cuts for equipment penetrations and any panel sizing required.

D. Install the 2" clips to the back (galvanized) side of the panel using the provided #8 x ½" self-drilling washer head tek screws. Torque the screws to **6-7 in·lbs (over torqueing may strip the screws out of the sheet metal)**. There should be three rows by three columns of clips, for a total of 9 clips per panel. (12 clips if the panel is greater than 12')

E. Position the clips as follows:

- The columns should be located 2" from each panel edge, and one column down the center. Column locations are not as critical, but should be within +/- half inch if possible.
- Rows are located at the distance calculated in section (4.C), plus 2-7/16".

(CONSTRUCTION TIPS:)

1. *Start installation in a corner or wall start, preferably where a field cut is not required and build towards the end where field cuts may be allowed.*

2. *Wall panels can only be cut at a corner or wall start where the cut edge is going to be hidden by coving.*
3. *Keep ALL panel drops that contain a finished edge. Drops are figured to be used as part of the project material count.*
4. *Use panel drops as efficiently as possible.*
5. *Leave all protective film in place during cutting and handling of panel.*
6. *Cut panel with a circular saw intended for use on steel sheet metal. (i.e. Milwaukee brand 8" Metal Cutting Saw 6370-20)*
7. *Avoid using reciprocating saws if possible as they may tear skins from core if the blade catches.*
8. *Keep all surfaces that panels may rest on free of metal chips to avoid scratches.*
9. *Snap a chalk line to locate the clips in a straight line across the panel. It is critical that the clips be positioned properly to line up with the mating extrusions installed on the wall substrate.*
10. *Clip locations may need to be adjusted if they interfere with panel cutouts, etc.*
11. *Reference shop drawing details for clip orientation.*

6. 0.5" WALL PANEL INSTALLATION

A. Peel back protective film 1" from edge of the prepared panel so it does not get pinched in the panel seam.

B. Install the panel by hanging the panel from the continuous extrusions installed on the wall substrate. The clips on the back of the panel should engage with the continuous extrusions, however they should not bottom out. The bottom of the panel should rest on the base track 4" off the floor to achieve level at the bottom of the wall.

C. Continue installing adjacent panels in the same manner, being sure to butt the panels together as tightly as possible. There should be little to no gap between panels.

D. Protect panels from damage at all times. Corrugated plastic sheets or equivalent are recommended.

(CONSTRUCTION TIPS:)

1. *Panels should be pushed together as tightly as possible.*
2. *It may be helpful to use suction cups to handle wall panels and help push them tightly together. Do not tap panel edges to close the gap as it may cause damage.*

7. 2" WINDOW PANEL INSTALLATION

A. Windows installations in the liner wall system typically use the 2" Plascore window assembly.

B. Windows should be installed into the wall prior to installing the panels.

C. Windows install using window clip part # M1104 as shown in the Plascore shop drawings. Windows typically use two clips per side.

D. Be sure the window is installed squarely and the Plascore logo is orientated correctly if applicable.

E. If the windows are being installed 4' on center to match the panels, then there may be custom panels provided. If this is the case, the panels can be butted directly against the window with finished edges and just caulked in place. If panels need to be cut around the window, Plascore will provide a welded steel trim frame with a powder coat finish to go around the window. This frame would be caulked in place.

(CONSTRUCTION TIPS:)

1. *It may be helpful to use suction cups to handle window assembly units.*
2. *Window should be sealed against the panel with silicone caulk, cold weld sealant will not adhere to the glass.*

8. COVE INSTALLATION

A. Coving should be installed at all vertical inside corners, and all wall-to-ceiling intersections unless otherwise specified.

B. Install the injection molded 3-way cove corner at all inside corners where the cove intersects from three directions.

C. Install the injection molded 2-way cove corner at all outside corners where the cove intersects from two directions.

D. Install the cove base extrusion to the panels using supplied tek screws. Install a screw into the wall and into the ceiling every 2'. Torque the screws to **6-7 in·lbs**. Run the cove base all the way to the tabs of the inside and outside corner covers (cove base should stop 3-1/2" from the corners). Run the cove base to the bottom of the wall panels. Butt cove base end to end for continuous stretches of cove.

E. Install the PVC coving into the cove base. The legs of the coving will need to be trimmed back at the corners to allow it to overlap the injection molded components.

G. All cove to corner connections must be sealed with cold weld or silicone.

H. The coving installs with pressure to create a tight fit against the panels. The coving may also be cold welded to the panels at the discretion of the owner.

(CONSTRUCTION TIPS:)

1. *When installing coving, be sure to get one end started, and apply pressure with hands or a rounded mallet/tool behind the point of engagement. This will create a zipper effect to help install the cove. Trying to press the cove directly into the base will be difficult. Do NOT use a hammer to pound cove into the extrusion as this may cause damage to the cove and/or panels.*
2. *At the bottom of full height walls, stop the coving at the bottom of the panels at the nominal 4" off the floor. The flooring contractor should cove the inside corner of their flooring to match the radius of the PVC cove.*

9. SEALING OF PANEL SEAMS AND PENETRATIONS

A. All uPVC to uPVC surfaces should be cold welded using cold weld sealant (provided by Plascore). Coving may be cold welded to the panels at the discretion of the owner. Any sealant against a non-uPVC surface should be an approved silicone caulk (provided by others).

B. For cold weld seams, it is imperative that the surfaces to be bonded are completely free of dirt, residue, moisture or any other foreign substance that may inhibit the chemical bonding of the cold weld sealant.

C. Cold weld sealant should only be applied once the room has been conditioned to room temperature and humidity levels. Temperature and humidity greatly impacts the curing cycle of the cold weld product.

D. For silicone seams, follow the silicone manufacturer's application instructions for best results.

(CONSTRUCTION TIPS:)

1. *The cold weld product skins over immediately and cannot be tooled. Any bubbles, gaps, or other defects should be allowed to cure before attempting to repair the imperfection. Attempting to tool the product before it has cured will generally result in smears that are difficult to deal with.*
2. *The opening of the cold weld sealant tube should be 1/16"-1/8".*
3. *When applying the cold weld sealant, hold the tip perpendicular to the seam as you go. This helps strike a flat bead as it's being dispensed.*
4. *If new to cold welding, it is recommended to practice on scrap panels, or non-visible areas first.*
5. *If cold welding long seams, it may be helpful to break the seam, allow it to cure, and start at the break point to continue with the seam.*
6. *By nature cold welding products tend to shrink as it cures, so the seams will be slightly concave once cured. It is not possible to get a completely flush seam by applying additional cold weld sealant as it will just build up on the edges and continue to shrink in the middle.*