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Z-Clip Attachment of StonePly Stone Panels to Steel Stud or Steel Furring

General

Proper installation is the responsibility of the Owner and Installer.

Installers should be craftsmen with construction experience. Installers should read the instructions. Follow all OSHA and other safety requirements. StonePly panels are a finished natural stone product. Use care to protect them during installation. While every installation is different, following these guidelines will help to ensure the proper installation of your new StonePly panels.

Product Inspection

Before installation proceeds the owner/purchaser should compare the stone received against the approved sample to verify that it is the expected product and that any variations are acceptable. **Installation or use constitutes full and final acceptance.**

Before installing, the installer and owner should verify that the jobsite and the substrate meet all StonePly installation requirements as outlined here. As with most thin sheet type materials some bowing is to be expected in the StonePly panels prior to installation.

Framing Construction

Steel stud or furring should be true and plumb and must have a maximum deflection limited to L/240, and not to exceed allowable stresses. Lateral support and bridging should be installed. Do not rely on the StonePly stone panels to provide lateral support for wall framing.

The steel stud framing should have a maximum variation from a true plan of 1/8 inch in 10 feet. Correct any defects <u>prior</u> to proceeding with stone panel installation. Framing studs must be located with studs at panel joint locations.

Handling

Care should be taken when handling panels to avoid breakage, chipping, damage or scratching of the stone face. When loading and unloading, sheets should be lifted, and not slid. Individual

sheets should be carried on edge, with the stone face towards the body. Large sheets should always be handled by two or more people.

Panels should be fully supported on a flat plane lined with foam, carpet or similar while installing z-clips onto backs of panels.

Storage

Panels should preferably be stored face to face, with foam sheet between faces, flat in horizontal racks in a clean dry area. The use of a cover board for covering the top panel and keeping it flat is recommended. Limestone, marble, travertine and other softer stones can be stained by dirt, mud and other construction materials.

Where horizontal storage is not possible, panels can be stacked on edge in slightly inclined vertical racks with support over the entire surface area. The recommended angle for such racks is approximately 80° from the horizontal.

Panels should always be kept in an enclosed dry storage area, along with corresponding substrate materials and adhesives, at a temperature of not less than 18°C (65°F). When materials are brought into an area where temperatures or humidity levels are different from ambient (e.g. after delivery), they should be allowed to stabilize before installation.

Some care should be used in staging the stone panels. By arranging the panels in the order needed for installing, productivity of the installation is improved.

Each project is different but generally the tools and supplies needed are as follow:

Installing Supplies

- 1. Glazier's horseshoe shaped plastic shims 1/16", 1/8" & ¼" thick by 2 1/2" long.
- 2. No. 8 Stainless Steel Bi Metal Screws with 300 series shaft and 400 series self-taping tip, Pan Head Elco brand or similar (for attaching panels to substrate)
- 3. No. 8 Stainless Steel pan head screws ½" (for attaching z-clips to backs of panels)
- 4. Masking Tape
- 5. Spray mixture of 75% water and 25% mild dish soap
- 6. Z-Clips

Installing Tools

- Screw Gun
- Pliers to cut shims
- Drill and bits
- 48" Level & 24" Level

- Circular Saw with wet diamond tipped blade
- Thin glazier's pry bar (to pry panels when shimming)

Installing

- a) Use the shop drawings, tape and laser level to mark the exact positions of panels on the wall. Check to ensure that each panel edge will have framing support.
- b) Using a laser, find the most outward point of the framing. This will be the installing "plane", as all other panels will need to be shimmed out to that level. Use string lines or a rotating laser set at least two inches from the most outward point of the framing as a reference line to measure back from to establish the plane for the entire StonePly stone panel faces.
- c) Starting with the bottom row, position the Z-clip sections as indicated by the shop drawings. Using the C Clamps, clamp the Z-clip section into place on the steel framing and then screw the Z-clip sections onto the steel framing. Do not exceed a maximum of 24" on center between Z-Clips, or as required for wind loads.
- d) Start with the bottom row of stone panels and work up. Lay panel facedown and fully supported on a padded flat surface. Attach the Z-clips to the back of the panel with screws as indicated by the shop drawings.
- e) Installation can progress vertically or horizontally depending on how the stone panels are lain out. Use care when aligning stone panel joints, shimming as necessary.
- f.) Remove any dirt and debris from face of stone at the end of each day.

Lifting Hazard

While StonePly panels are much lighter than solid slab stones, they can still be heavy. Keep in mind the National Institute of Occupational Safety and Health recommends maximum safelifting weight of 51 pounds when all lifting conditions are perfect. In order to avoid injuring yourself, always use proper lifting techniques and use two people to move cartons and panels that weigh more than 51 pounds. Always carry panels on edge.

Slipping Hazard

If installing on a floor or horizontal application. Do not attempt to install this product if the floor or the surfaces are wet. You should dry all surfaces prior to installation. Stone floors can be slick, especially if wet or waxy. Avoid use of wax. If installing in areas where the floor may become wet, take precautions to avoid slipping and to protect the public from slipping.

Dust Hazard

When cutting or drilling the StonePly panels, use a dust collection method which will prevent dust from going into the air. Always work at a well-ventilated area. It's best to take the panels outside for cutting, drilling or sanding. Some stones, especially granites, contain silica. During cutting or grinding operations silica can become respirable silica dust which, if inhaled can lead to a condition known as silicosis.

When Cutting

- 1. Take panels outdoors if possible or, if you must cut indoors only cut in a well-ventilated area.
- 2. Position cutting location so that wind will blow dust away from user and others in working area.
- 3. Use a wet blade stone saw or use a dust reducing circular saw equipped with a diamond blade and HEPA vacuum extraction.

NIOSH-approved respirators can be used in conjunction with above cutting practices to further reduce dust exposures. If concern still exists about exposure levels or you do not comply with the above practices, you should always consult a qualified industrial hygienist.

Important Note

All information presented is given subject to StonePly's current Terms and Conditions of Sale. This information is only a general guide to good practice and constitutes no form of warranty or representation as to fitness for purpose in respect of the products and processes described. Since all projects are different, the installer should satisfy themselves that the install method they use is appropriate to the site conditions. The company reserves the right to change specification at any time without prior notice.

Notice: StonePly can't anticipate every possible potential hazard during the installation of our products. Warnings and instructions in this guide are therefore not all-inclusive. The installer should satisfy themselves that the tool procedure or system they are using for the installation is safe and meets all building codes and safety requirements. Because each building or home is different, installation will vary slightly from unit to unit.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.