



Patterson Whittaker Architectural Profiles

EXTERIOR STONE FINISH INSTALLATION PROCEDURES

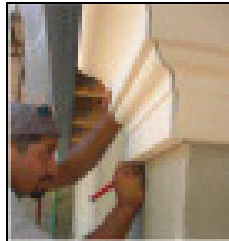
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INSPECT MATERIALS and STUDY PRE-INSTALLATION INFORMATION

Confirm materials ordered match shipment received, then carefully inspect all PW products for finish and dimensional accuracy. PW will not be responsible for defective materials once installed.

Be certain wall surfaces are clean, dry, code-compliant and otherwise meet the conditions described in *PW's Pre-Installation Information*.



LAY OUT YOUR DESIGN

Plan ahead! Confirm all assembly designs, including specific profile locations, joint spacing details and installation clip positions. Many experienced installers mark the full project layout directly on the substrate with a dark pencil to ensure design symmetry and allow for easy confirmation of material needs. As a general rule, the closer the segments are to a uniform length and the greater the symmetry of the applied shape pattern, the more pleasing the overall design will appear.

PREPARE WORK AREA

A flat, clean, dry workspace should be created and all required tools and supplies carefully organized. A stable and secure 4' x 8' plywood tabletop on sawhorses can provide an excellent work surface.

BASIC TOOLS REQUIRED

The following tools and equipment are recommended for typical installations:

- Compound miter saw
(12" compound miter slide saw with 12" segmented diamond blade is ideal)
- Extension cord
- 4' x 8' assembly table.
- Safety glasses, dust mask & other typical jobsite safety equipment
- All necessary scaffolding and/or ladders
- PW approved adhesive caulking
- Caulking gun

2' "L" square
Tri Square
Large blade utility knife, with blades
Hammer
Level
Chalk line
Carpenter pencil
Calculator
Tape measure
Clean soft cloth, mild soap, stiff nylon brush & water bucket for clean-ups

Optional extra tools:

Hot glue gun and glue sticks. (Ask PW for recommended brand and sourcing)
Hand saw
3 1/4" galvanized nails
1 1/4" galvanized roofing nails
Fine grit sandpaper or sanding block (60 grit recommended)
Rasp
Tarps or plastic sheeting for weather protection and dust containment
1/2" x 2" notched trowel (for hand-mixed adhesive applications, like *Primus*)

ATTACHMENT OPTIONS

PW products can be installed in a variety of ways. The size and weight of the shape segment, desired installation location and site weather conditions are factors requiring varying approaches.

Attaching PW shapes with adhesives

PW-approved polyurethane adhesives provide exceptional bond strength and are fully warrantied for attachment to all PW approved substrates. These products provide tremendous adhesion, but may take from 3 to 24 hours to "set" to the point where they can safely hold the shape in position. After the adhesive is applied to the back of the shape (see *Applying Adhesive to PW Shapes*), hot glue is recommended to provide immediate attachment and will securely hold most shapes in place until the polyurethane adhesive has had a chance to sufficiently cure. The combination of quick-setting hot glue and the slower curing, but permanent, bonding of PW-approved adhesives is ideal for most casings, sills and other smaller-scale architectural details.

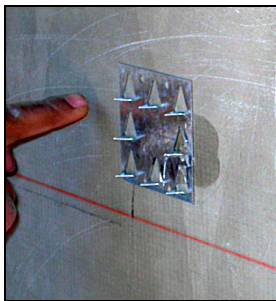
The use of hot glue is particularly recommended when outside temperatures fall below 55 degrees. Many installers also find it helpful during extreme weather conditions to use adhesive caulking that has been stored in a room temperature environment.

Attaching PW shapes with mechanical fasteners

PW's installation clips (*patent pending*) attach to the building face and serve as temporary "support shelves" to suspend shape segments in

proper position until the applied adhesive has cured enough to provide permanent adhesion to the building surface. PW clips are significant labor-saving devices, particularly for the installation of larger mid-bands, headers and cornice materials. They are also handy when temperature or other weather conditions adversely affect hot glue adhesion qualities.

Certain PW shapes, such as large-scale cornice and parapet segments, often include factory-installed “Z” and “L” bar metal strapping or EPS component support structures (*patent pending*). These attachment mechanisms allow for convenient fastening to upper walls and parapet structures.



ATTACHING PW INSTALLATION CLIPS

Preferred option

After carefully determining desired segment spacings and marking joint locations on the building wall, a small dab of PW-approved adhesive should be applied with a caulking gun to the desired installation clip location and smoothed down with a broad knife. The metal clip can then be firmly squeezed into the adhesive, with attachment prongs in a horizontal position to provide the best “shelf” until the adhesive fully cures. The clip should be installed so the tips of the prongs are elevated slightly from the base. Tapping the center of the newly installed clip with the back of the broad knife helps ensure that the clip fits snugly against the building face.

A small amount of adhesive may seep through the clip mounting plate as it is pressed into position. Excess adhesive that could harden before the PW segment is applied should be removed. Hardened adhesive on the clip surface can prevent the shape from fitting snugly against the base of the prongs.

When desired, hot glue may be applied to the clip to provide a quick-setting temporary bond. Hot glue will not provide permanent adhesion, so it should only be used in conjunction with PW recommended adhesives.

Do not begin product installation until the clip has cured enough to bear the full weight of the PW shape. As a rule of thumb, clips should support both ends of the segment and otherwise be placed 18” to 24” apart. Proper clip spacing will naturally vary with the length and overall mass of the segments.

Alternative option

PW clips may also be secured by applying a thin layer of PW approved adhesive directly to the back of the clip, then applying to the clean, dry building face once the adhesive becomes tacky.

Though effective, applying adhesive directly to the back of the clip

with a caulking gun can be messy and may lead to excessive material oozing through to the face of the clip.



CUTTING PW PROFILES

A 12" compound miter slide saw with a 12" segmented diamond blade is ideal, but PW materials can be crisply cut with most standard saws designed for the accurate cutting of wood products. A fine edge sanding may be desired in some cases to provide a more rounded contour where segment ends transition into the grout joint.

In the event shape dimensions prohibit a complete cutting by the slide saw blade, the uncut segment face should be sliced with a sharp utility knife before finalizing the cut with a hand saw. This will prevent any tearing of the finish coating.



INSTALLING PW FOAM SPACERS

PW's ¼" foam spacers (*patent pending*) should be inserted between fixed segments to allow for product expansion and movement. Apply a small dab of hot glue or PW recommended adhesive to the spacer and secure to the segment end. Be sure the spacer aligns exactly with the product core to ensure proper depth for later application of an approved grouting sealant.

If grout joints wider than ¼" are desired, closed-cell "backer rod" stripping should be inserted between the segments. It should be noted that many sealant manufacturers recommend that grout joints should never be deeper than they are wide.

INSTALLATION SEQUENCE

An "outside-to-inside" installation sequence helps assure level and symmetric assemblies. For window openings, PW factory-mitered outside corners and return sill ends should be installed first. Infill segments can then be cut from linear stock and inserted afterward. Experienced tradesmen use carefully applied chalk lines or flat bar leveling guides to ensure square and level installations.

PW stone finish products have slight natural color and texture variations. Care should be taken to randomly select segments for installation to help achieve a pleasing visual color and texture balance.

APPLYING ADHESIVE TO PW SHAPES

Be careful! Use only recommended PW adhesive products. Many look-alike products can lead to staining or may even dissolve the EPS core, which can lead to eventual adhesion failure. Adhesive should be applied in a diagonal strand, broken line, or random dot



pattern to allow for adequate drainage and moisture escape from behind the material. A continuous adhesive bead should never be placed along the top or bottom perimeters of the back of the shape.



ATTACHING THE SEGMENTS

It's easy! Apply PW approved adhesive to the back of the shape in a pattern described above, place a small dab on top of the attachment clips, and press snugly into place. If you have misaligned your positioning, simply remove and re-install the segment, taking special precaution to scrape off and replace any adhesive that may have begun to set. PW shapes should only be installed with fresh, soft, PW approved adhesives. Check your work. Once cured, the product will likely have to be destroyed to be removed.

GROUTING THE JOINTS

To ensure crisp applications of joint sealants, it is highly recommended to carefully mask off the adjacent finished edge surfaces with an approved plastering or lacquer tape before the sealant is applied. As of this writing, we recommend 3M™'s "Hard to Stick" green lacquer tape (product #2060) as an ideal surface protector. Do not use blue painter's tape or duct tape, as adhesion may be weak and heat and sunlight can make removal very difficult.

Silicone sealant or *PW's Sanded & Siliconized Grouting Sealant* provide durable and flexible adhesion between profile segments. Follow the provided application instructions exactly. PW sanded joints can be "struck" by carefully smoothing the applied material with a tool or wet fingertip. A slightly concave joint will help highlight segmenting by providing the natural shadowing common to many classic mortared stone or masonry installations. Be sure to avoid air pocket formations between the sealant and the foam spacer.

CREATING FLUSH JOINTS

Flush joints without PW's 1/4" foam spacers are acceptable for tight, mitered-corners or conditioned interior applications, but care should be taken to provide room for proper expansion and movement in all exterior installation systems. Flush joints can be made with PW-approved silicone sealants. If desired, a small bead of PW coating mixture may be placed just inside the profile finish perimeter before

the segments are connected. Surplus material squeezed to the surface should be removed with a thin blade once the coating begins to set.

As a rule of thumb, we recommend installed continuous segments be no longer than 10' without an expansion provision. See your building envelope inspector for expansion recommendations appropriate for your climate and project.

Installers should be aware that the natural movement of building wall surfaces may cause the outside corners of door and window openings to show slight stucco or masonry surface cracking. Corners covered with PW applied materials will experience the same forces and may also show slight joint separation. Joints used in these circumstances may have to be periodically maintained.

Using siliconized grout for mitered-corner joint fabrications will allow the joint to be flexible and better able to withstand building movement, but the stability of any joint is ultimately only as stable as the building itself.

CREATING GROUTED MITER JOINTS

Mitered-corner joints may be grouted, but since PW provides 1/4" foam spacers for flush joints only, the installer must insert an appropriately sized spacer or "backer rod" to provide a resistive base for the application of the grouting sealant.



FINAL SPOT CLEANING

Finished material surfaces may be cleaned with a mild, diluted, biodegradable soap, such as *Simple Green™* and a stiff nylon brush. Never use solvents or a pressure washer to clean PW products. Always use extreme caution to avoid getting PW's urethane adhesive on the shape finish.



FINAL TOP EDGE SEALANT APPLICATION

Top edges of installed PW shapes should always be sealed to help prevent water infiltration behind the installed materials.

If this procedure is completed **before** the application of any final finish stucco coating, a PW approved *polyurethane sealant* should be used, since such products will chemically bond with acrylic top coatings. Sonneborn's™ *Sonolastic 150* sealant is our recommended option.

If the final edge sealant is applied **after** the finish coating has been applied, a *silicone sealant* is required.

To maintain a pathway for water drainage and moisture escape, a sealant bead should never be placed along the bottom edge of any installed profile!



SEAL COAT PROTECTION

PW stone finish materials are pre-sealed in the factory before shipment.

For materials installed in shadowed, high-moisture environments conducive to mold or fungus development, ask your PW rep or masonry supplier for recommended anti-fungal or other preventative sealants.



PAINING PW PRODUCTS

PW stucco grade, paint grade and interior crown materials should be painted with acrylic latex paints. Because PW products contain acrylic compounds, they form an exceedingly strong “cross-linking polymer bond” with these easy-to-use latex products and avoid any need for oil-based primers.

PW stone finish materials may also be painted in the same manner, but must first be lightly sanded. The factory applied sealer coat will inhibit the paint’s bonding ability to a limited extent, but a quality bond can still be attained. We recommend spot-testing prior to painting stone finished surfaces. No warranty can be made by PW for paint adhesion to PW stone finished surfaces, but such application has been performed quite successfully by others.

Always be certain all surfaces are clean and dry before application of any coating materials. Manufacturers recommendations should always be closely followed.