

VERSETTA STONE®

INSTALLATION INSTRUCTIONS



INTRODUCTION TO VERSETTA STONE

Versetta Stone is an easy to install stone panel product that gives you the beauty of stone. For additional product information, visit the resources page on VersettaStone.com.

MATERIALS & TOOLS

Materials

- Versetta Stone® Textured Finishing Adhesive
- Versetta Stone Universal Corners
- Versetta Stone Wainscot Cap
- Non-painted metal flashing
- Versetta Stone Fasteners or other corrosion-resistant screws, nails or concrete anchors suitable for exterior use
 - Compatible with galvanized sheet metal (recommended quality, hot-dipped galvanized nails or screws - Boral is not responsible for corrosion)
- Versetta Stone Panel
- Versetta Stone Starter Strip
- Versetta Stone Adhesive
- Expanded lath

Tools

- Hammer
- Masonary chisel
- Hand grinder
- Level or laser level
- Tape Measure
- Screw gun
- 5/16" rod or dowel (optional)
- 10" sliding compound miter saw with a segmented diamond blade or circular saw with a masonry blade and dust suppression or collection system
- 5-in-1 tool
- Circular saw
- Dust reduction and reduction tools
- Chalk line
- Pneumatic roofing nail gun (optional)
- Tin snips
- Nylon bristle brush

Safety Equipment

- Safety glasses, goggles, face shield, ANSI Z87.1
- NIOSH approved N95 series disposable respirator
- Hearing protection
- Hard hat
- Dust suppression or dust collection system
- Gloves
- Steel toe boots

STORAGE AND HANDLING

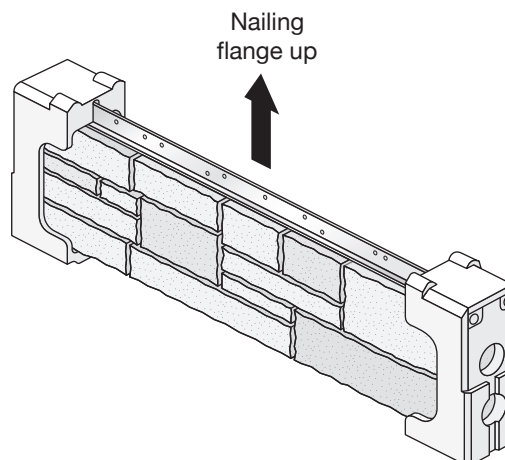
The product should be transported and stored in the original shipping package, nailing flange up, until ready to use.

Cleaning

- Remove cutting dust with clean water and a nylon bristle brush to avoid airborne particulates.
- For stubborn dirt, add granulated general detergent.
- Do not clean with harsh chemicals or acid products.
- Do not pressure wash.

Salt and De-icing Chemicals

- Do not use salt or deicing chemicals on the product or in areas adjacent that may splash onto it.
- See printed warranty for more details.



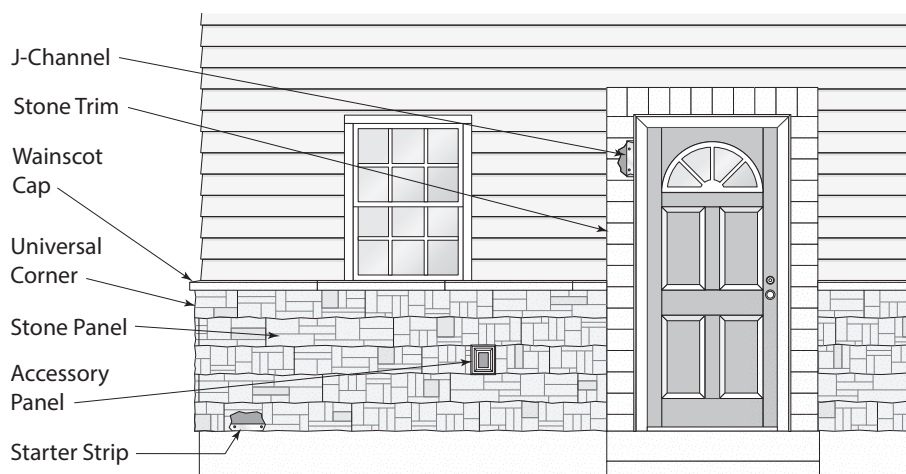
ESTIMATING MATERIALS

Before You Start

Currently, Boral requires a minimum 7/16" OSB or 1/2" plywood sheathing behind the Versetta Stone product. Wall framing should be designed to limit out-of-plane wall deflection to a minimum of $L/240$. Walls are to be plumb within 1/4" per 10 lineal feet. Installations above 30' must be approved by the design professional.

Estimating Materials

1. Determine the net wall area to be covered. Do this by multiplying the wall width (in feet) by the wall height (in feet). Subtract the area of windows, doors or any other area that will not be covered. This is your net wall area.
2. Universal Corners (UC) are used to finish outside corners, inside corners or to provide an attractive end of wall termination. Each end of the Universal Corner will provide 8" of height coverage for a total of 16" per panel (8" x 2 ends). Multiply the total height (in feet) of total wall terminations by 0.75 to calculate the number of Universal Corner panels needed. Don't forget to add a few for scrap. Important Note: Each Universal Corner Panel will provide one left and one right after cutting the panel into two pieces.
3. In addition, using an entire Universal Corner Panel provides 2 square feet of wall area coverage. This coverage will be subtracted from the Total Wall Area to determine the number of Flat Panels needed.



Formulas

Net Wall Area = width x height (in feet)

Number of Universal Corners = Corner Height (in feet) x 0.75

Universal Corner Coverage = # of Universal Corners x 2

Flat Panel Area = Net Wall Area – Universal Corner

Coverage Number of Flat Panels = Flat Panel Area ÷ 2

A factor for scrap should be included, and it is suggested you start with 5–10% Universal Corners.

- Fastener Quantity = 4 per panels 18" to 36" long
- Starter Strip Quantity = Base perimeter of the wall rounded up to 10'
- J Channel Quantity = Measure the perimeter of window and door openings, trim material transitions, cladding transitions and any control joints.

General Rules and Tips

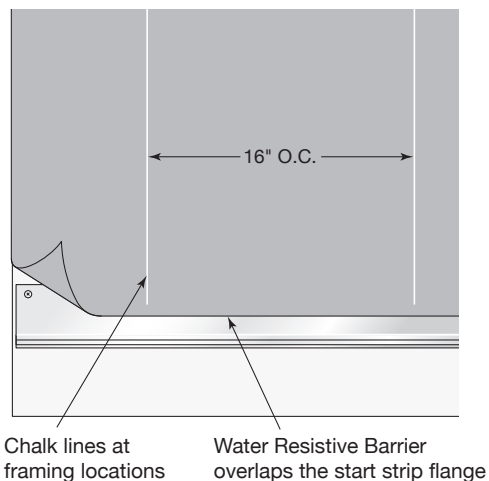
- Panels are installed from bottom to top, lapped in a shingle fashion.
- Ensure the tongue is seated completely in the groove.
- Avoid aligning vertical joints. Stagger panels from row to row.
- Universal corners will create a staggered appearance.

Surface Preparation

Versetta Stone mortarless stone veneer panels are designed for application over wood framing, spaced 16" on center and covered by a code approved, nailable sheathing product. Currently, Boral requires a minimum 7/16"

OSB or 1/2" plywood sheathing beneath the Versetta Stone product. Wall framing should be designed to limit out-of-plane wall deflection to a minimum of L/240.

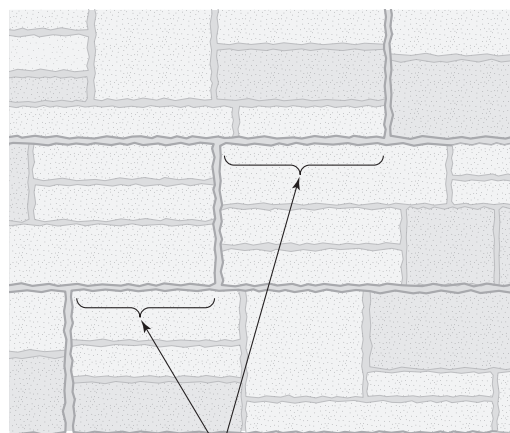
At a minimum, the building's corners should be sheathed to meet local building code requirements. Roofing and interior wallboard should be installed prior to starting installation. Installations above 30' must be approved by the design professionals.



- Water Resistive Barrier (WRB) - Minimum one layer of Grade D building paper or other WRB material meeting the requirements of ICC Acceptance Criteria #38 or ASTM E 2556/E 2556M.
- #15 felt (ASTM d226 Type 1) provides a dark background that helps conceal any area where texture or installation allow the WRB to show. Local building code or climate may require 2 layers of WRB.
- Flashing materials must be present at all terminations, penetrations and material transitions.

Planning Your Layout

- Mark vertical framing locations with a pencil or chalk line.
- The product must maintain a clearance from grade of a minimum 4" above soil or 2" above pavement or concrete.
- Plan your starting distance to optimize panel usage when you reach windows and doors.
- Mark a level line every 24" to quickly measure if your panels are running level.
- If Universal Corners are not being used, start next course with the leftover piece if it is longer than 8".
- Stagger each course a minimum of 8". An automatic stagger is created by the long and short leg of Universal Corner Panel.



Minimum of 8" stagger between courses

INSTALLATION STEPS

Starter Strip

- Use a chalk line and/or level to ensure the marks for your starter strip are level.
- Install Starter Strip with roofing nails or Versetta Stone Fasteners every 8"-10" at your starting point line. Allow 1/32" gap between fastener head and strip.
- Allow clearance at material butt joints, corners and ends of walls to allow for proper alignment of panels.
- Lap WRB over starter strip nail flange.

End Trim

- Install J Channels, trim boards or metal channels at windows, doors, material transitions, penetrations or terminations.
- Fasten with roofing nails or Versetta Stone Fasteners every 8"-10", allowing a 1/32" gap between the fastener head and channel. Space 1/4" apart at material butt joints.
- When used in horizontal applications, drill 3/8" drain holes every 12" in the trim channel.

Fastening Details

- Install 4 Versetta Stone Fasteners per panel when the length is greater than 18" (2 of the 4 fasteners into framing).
- Fasteners should be driven straight and flush into framing.
- Pneumatic nails should be driven directly through nail flange into framing.
- Add one additional fastener if only one framing location occurs behind the panel.
- A fastener must be within 3" of each end of the panel.

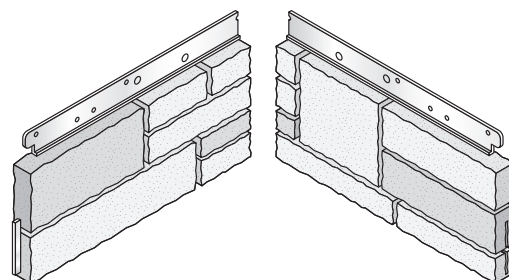
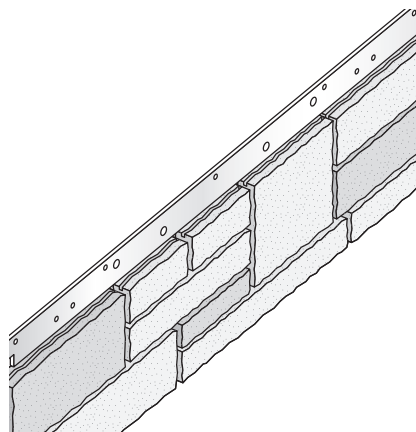
Cutting and Shaping

Always wear eye protection, hearing protection and appropriate respiratory protection while cutting or trimming†. Do not cut more than one panel at a time. Trimming and staggered cuts are best made with a hand grinder utilizing a masonry blade. Holes can be made with a masonry hole saw, drill bit or grinder with a masonry blade. All cutting tools should be equipped with an appropriate dust suppression or dust collection system.

INSTALLING VERSETTA STONE

Installing Flat Panels

- Starting at the bottom of the wall, position the first panel, with nailing flange up, and tongue into the Starter Strip.
- Fasten panel with a total of 4 Versetta Stone Fasteners in the top nailing flange. A minimum of 2 fasteners must penetrate framing, end fasteners must be located within 3" of the end of the panel.
- Position the second panel into the Starter Strip and slide to nest end tabs with the edge of the first panel. Install fasteners.
- Adjust panel spacing in 1/16" or less increments until your course runs level.

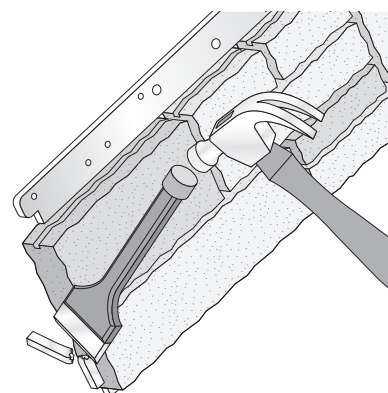
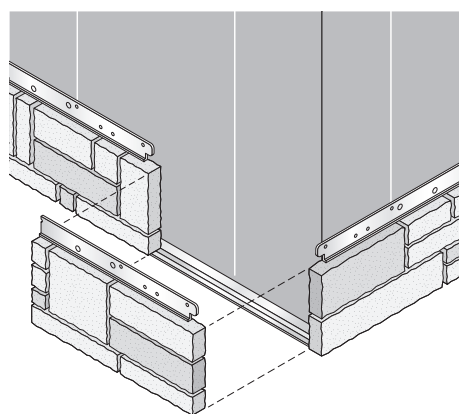


Using Universal Corners

Universal Corners must be cut into 2 pieces to create a Left End and Right End. Ideally you want to cut random lengths to assist with wall staggered appearance and avoid pieces shorter than 8".

Installing Outside Corners

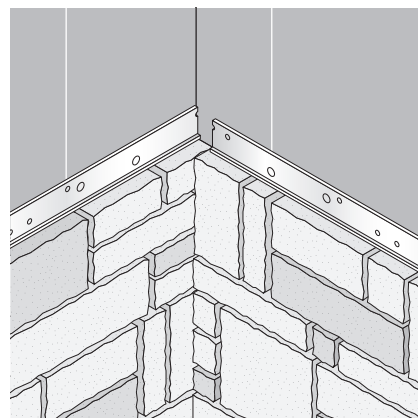
- Start at the bottom of the wall and position one half of a Universal Corner, nail flange up, cut edge away from corner, into the Starter Strip.
- Set a standard Flat Panel into the Starter Strip on the adjacent wall. Slide the Universal Corner to extend past the wall edge and slide the standard Flat Panel to intersect with the Universal Corner.
- The standard Flat Panel side tongue will need to be removed.
- The Flat Panel can then tightly seat against the back of the Universal Corner.
- Fine tune the corner appearance with slight adjustments of both pieces until you get the best fit.
- Each Universal Corner will require a minimum of 2 Versetta Stone Fasteners when length is 18" or less, with at least 1 into framing.



Installing Inside Corners

The Universal Corner is manufactured so that 2" at each end of the panel has minimal texture for a superior fit when a Flat Panel is terminated into it.

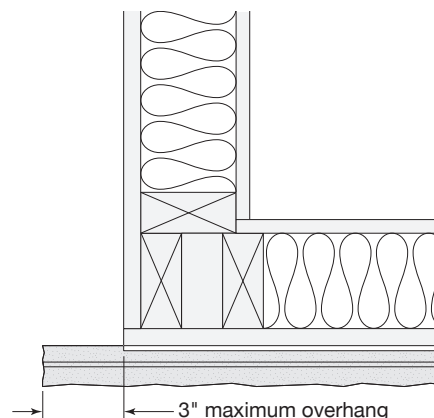
- Start at the bottom of the wall and position one half of a Universal Corner, nail flange up, cut edge away from corner, into the Starter Strip. The Universal Corner panel must be pushed all the way into the corner before proceeding.
- Install a standard Flat Panel into the Starter Strip of the adjacent wall and butt into the face of the Universal Corner.
- If you are using an uncut standard Flat Panel, it will be necessary to remove the side tongue from the standard Flat Panel on the end that will butt into the face of the Universal Corner.
- Start the next course inside the corner with the remaining half of your original Universal Corner Panel. This step will enable the courses to alternate providing a woven inside corner.



Installing End Wall Terminations

In applications where the Versetta Stone System will terminate without a corner return, the Universal Corner can be used to create an attractive finished end. A cut Universal Corner provides you with a Left and Right end and must be installed on the end of the wall intended for.

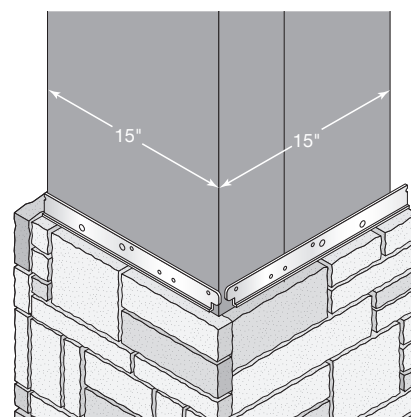
- The cut edge of the Universal Corner will face away from the termination point.
- You can allow the end of the Universal Corner to extend up to 3" beyond the wall termination to align with the adjoining wall covering.



Used in Column Applications

Versetta Stone can be used to create square 18" columns using only Universal Corners. Requires two bundles of Universal Corner Panels for every 16" in height. You can cut the panels shorter for a tighter fit or smaller columns.

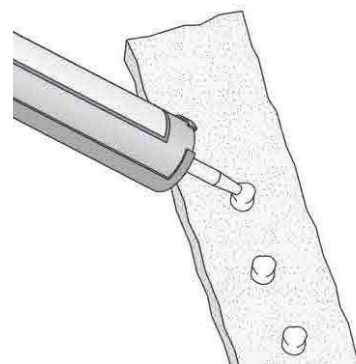
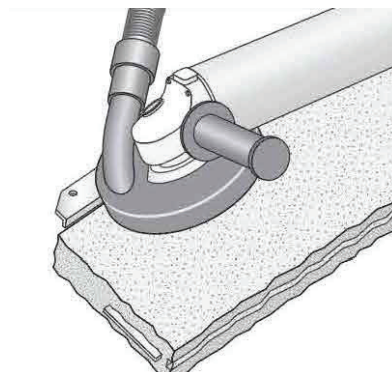
- Start by framing out the column so that each side measures no more than 15.5" with sheathing.
- Cut the Universal Corners in half so that each piece measures 18" in length.
- Starting at the base of the column, position the Left End of a Universal Corner Panel into the Starter Strip with the finished end extending roughly 1.5" past the edge.
- Use 3 more Left Ends to complete a course.
- Use Right Ends of your Universal Corner Panels in the alternate direction to complete the second course of your column.



Installing Partial Panels and Accessories

Throughout the project full panels will need to be cut and modified to fit. In some cases flanges will be removed. Panels without nail flanges must be fastened using adhesive. Since adhesive will not bond to water resistive barrier, secure a suitable substrate such as non-painted, clean metal flashing or expanded metal lath every 16" to the framing with nails.

- Apply quarter-sized dabs of adhesive a minimum of 1/2" tall, every 3"-4" to the wall, the back of the partial panel
- or accessory or both and press on to assure complete contact.
- If needed, insert a wedge or shim between the partial panel and trim to hold during curing.
- If the partial panel or accessory will not be retained by Versetta Stone J Channel or other wood/composite trim material, or the partial panel is more than 4 feet above ground, use a screw for extra holding power.
- Add a fastener every 16" by drilling a hole with a masonry drill bit as recommended by the fastener manufacturer.
- Tighten just enough to pull the panel into the adhesive to allow contact while curing.
- Conceal the visible screw head by applying a dab of Versetta Stone Textured Finishing Adhesive followed by a sprinkle of stone dust from your cuts to hide the hole.



Installing Wainscot Cap

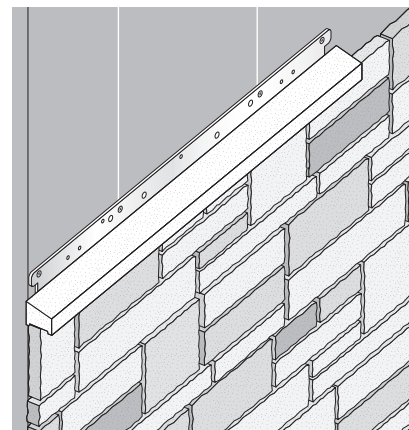
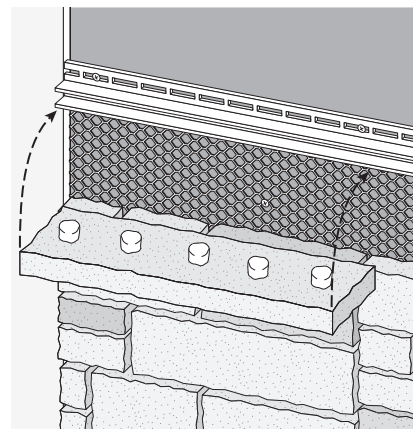
Install Versetta Stone Wainscot Cap in the same manner as flat panels, using 4 fasteners per panel with a minimum of 2 fasteners in framing. You may supplement the application with adhesive as outlined in the instructions for installing Partial Panels. **Note:** "L" brackets are not required.

Installing Wainscot Cap as a Window Sill

When installing Wainscot Cap under an existing window or opening, remove the nailing flange where necessary with a grinding wheel or metal snips. Use gloves and safety glasses and be aware of sharp edges.

Install the Wainscot Cap in the same manner outlined for installing Partial Panels. In some cases, "L" brackets may be needed to provide additional support. To facilitate proper fit of the bracket, a portion of the backside tongue will need to be removed with a hand grinder where the bracket will make contact. Mount 2 brackets per each Wainscot Cap ensuring 1" penetration into the framing.

Note: The "L" bracket's vertical surface is an acceptable mounting location for adhesive and can act as the mechanical connection to framing. Shim the Cap or bend "L" brackets to achieve full adhesive contact and level status. Additional temporary support such as clamps, shims, or supplemental fasteners may be needed until the adhesive cures.

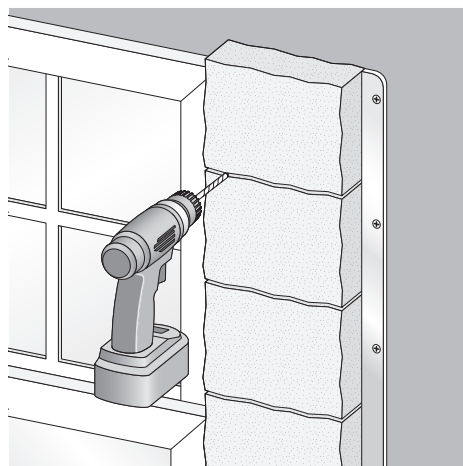


Installing Trim Stone

Prepare the surface as outlined in the “Partial Panels and Accessories” section of these instructions. Apply quarter-sized dabs of adhesive a minimum of 1/2” tall, every 3” - 4” to flashing/lath, back of trim stone or both.

Place trim stone tight to adjacent window/door/trim and press firmly into the adhesive. Continue trim stone installation by attaching stone to wall, with 6 Versetta Stone Fasteners through pre-drilled nailing flange holes. Do NOT use nails for this application.

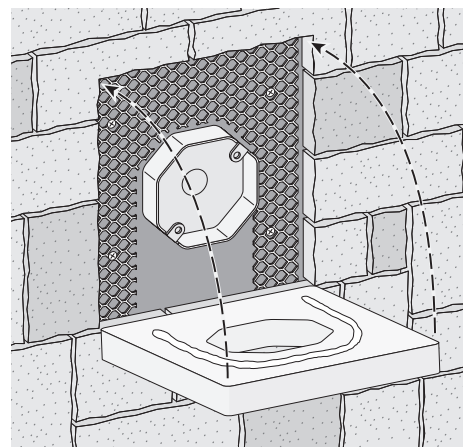
Note: If the Versetta Stone Trim Stone will not be retained by a Versetta Stone J Channel or Starter Strip, or other wood/composite trim material, or the partial panel is more than 4 feet above ground, supplementary fasteners are required to hold panel during adhesive curing. Drill the Trim Stone with a masonry drill bit and secure in the same manner as partial panels.



Installing Accessories Receptacle Box and Light Box

Ensure that electricity has been shut off to the electrical box. Prepare the surface as outlined in the “Partial Panels and Accessories” section of these installation instructions.

- Trace the electrical box extension onto the flashing/lath, allowing for at least 4” of material beyond the installed product, and cut prior to mounting.
- The extension box flange should be set equal to the thickness of the Versetta Stone Accessory Box thickness.
- Weatherproof the perimeter of box penetration with additional flashing/caulk. Apply a self adhered flashing material over the top edge of flashing, overlapping 1”.
- Trace Accessory Box stone perimeter onto flashing material and proceed to install Versetta Stone panels on your wall and around your traced lines.
- Once the wall is completed, apply 3/8” beads of adhesive in an upside down “U” shape, ensuring substantial contact with Accessory Box stone
- Install Accessory Box stone, ensuring complete contact with the adhesive and maintain pressure for a proper initial bond.
- **Note:** Temporary support may be required during curing. Insert a wedge or shim between the box extension and Accessory Box stone or surrounding panels to help hold during curing.



FASTENER RECOMMENDATIONS

Application Groupings	Sheathing	Fastener Description	Fastener Penetration	Max. Head Thickness	Min. Head Diameter	Min. Shaft Diameter
– Wood Framing	– 7/16" OSB – 1/2" Plywood – 1/2" Drywall†	– Exterior Wood Screws – Roofing Nails*	1" penetration into framing	0.13 inch	0.375 inch	0.125 inch
– CMU Block – Concrete – Brick	– N/A	Tapcon Flat Head Concrete Anchors	1" penetration into masonry	0.13 inch	0.375 inch	0.1875 inch
– Steel Framing	– 7/16" OSB – 1/2" Plywood	#8 or #10 (ASTM C1513) Self-tapping, Self-drilling Screw	Minimum thread penetration through framing	0.13 inch	0.375 inch	0.164 inch

* Panels may be difficult to remove if installed with roofing nails.

† For interior use only; each panel must be screwed into a stud.

Building code requirements vary and it is suggested that you check with local authorities to determine requirements for your area. Carefully read all installation instructions before proceeding with installation. Observe all safety precautions.

CAUTION: Contains Crystalline Silica.

Airborne particulates generated from cutting, sawing, grinding, chipping or shaping this product may create a health hazard and cause irritation of the nose, throat and respiratory tract. Avoid prolonged or repeated inhalation of dusts from this product. Refer to OSHA cutting standards for further information. A properly fitted NIOSH approved N95 series disposable particulate filtering facepiece respirator (formerly referred to as “dust masks”) or equivalent, should be used when mechanically altering this product (e.g., sawing, cutting, drilling or similar dust generating processes). Wear long-sleeved shirts, long pants, gloves and safety glasses with side shields when handling and installing material. Wash hands and face with soap and warm water immediately after handling this product. Please consult the product Safety Data Sheet (SDS) for more details.

VERSETTA STONE®

Installation Instructions

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Made in the USA



BORAL
BUILDING PRODUCTS

Atlantic® Premium Shutters | Builders Edge® | Foundry® Specialty Siding | Kleer® | Mid-America Siding Components®
SturdiMount® | Tapco Tools® | TruExterior® Siding & Trim | Vantage® Shutters | Versetta Stone® | Wellcraft Egress Systems®