



Installation Guidelines



Tando Building Products provides these instructions as general guidelines only. Tando Building Products neither installs exterior cladding nor has any control over any installation. The contractor and/or installer shall be responsible for ensuring that all applicable local building codes are followed, which may require modification of these general guidelines. Tando Building Products assumes no liability for personal injury or property damage resulting from improper or careless application of the described techniques.

For more information on Tando Building Products and its wide variety of state of the art products, please call us at 844-MY-TANDO (844.698.2636) or write: 1111 NW 165 Street, Miami, FL 33169-5819. Installation Guidelines can be downloaded from our website: www.Tandopb.com.



BASIC GUIDELINES

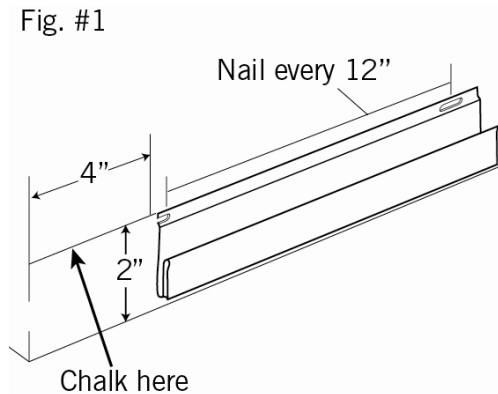
1. Always work from left to right, completing installation on one wall before beginning another. Always starting at the lowest point of the structure.
2. As with any plastic composite exterior building materials, Tando Building Products panels will expand and contract with a change in temperature. Therefore, during installation it is necessary to position the panels properly to compensate for temperature effects. Use caution not to force panels down onto the flange of the lower row, as this will override the expansion joints and may cause buckling. Storing panels in heated areas make them more pliable, allowing for easier installation in colder temperatures.
3. Store panels on edge, do not stack flat.
4. Tando panels are intended for use in a vertical placement only, and are not designed or warranted for roofing or flooring applications. Mansard roofs with a 45/12 slope or greater are acceptable applications.
5. It is essential that you work over a smooth, flat, nailable wall surface, (i.e. Minimum 7/16" OSB board or plywood is recommended).
6. Non-corrosive fasteners are required to secure the panels and they must penetrate the solid substrate by at least 7/16".
7. If face nailing is employed, pre-drill a hole in an inconspicuous area, such as a mortar joint. The hole must be larger than the shank of the nail or screw, but smaller than the head, to allow for possible expansion. The head can be covered with matching paint or caulk.
8. Fastening the panels should not restrict panel movement. Fasteners should be driven straight into the center of any elongated hole making light contact with the panel, allowing the panel to be hung. It is best to work with the panels at waist-level, allowing the installer to inspect the back of the panels, verifying that all fingers are properly engaged.
9. Overriding the expansion joints may restrict panel movement and cause buckling (Figure 4). The panel requires a minimum of five fasteners per panel. A closer spacing of fasteners is required for high velocity wind areas; for details refer to report ESR-3070, which can be downloaded from our website www.Tandobp.com.
10. Do not install all corners at one time, or you will lose the ability to adjust and properly align them to the panels. It is recommended not to install more than two corners at a time.

11. Tando has been designed as an exterior cladding. Tando cladding allows the material underneath it to breathe; therefore, it is not a watertight covering. To achieve designed performance, Tando siding must be installed over a weather resistant house barrier system such as house wrap.

INSTALLATION STEPS

STEP ONE Install the starter strip at the lowest point of the structure. The structure's solid substrate must be no less than 7/16" thick. The strip should be positioned 4" from the wall corner allowing for the width of the corner piece (Figure 1). Nail the starter strip at least every 12". Make sure the starter strip remains level.

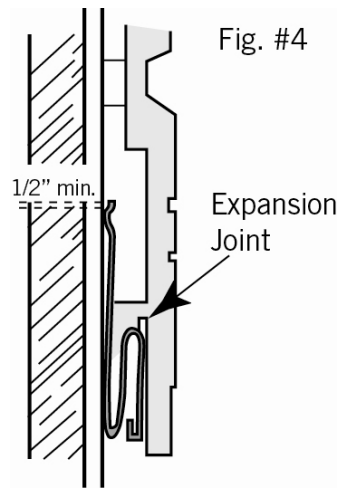
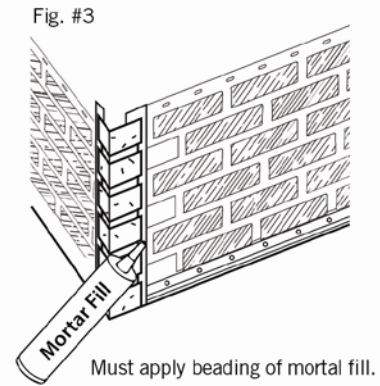
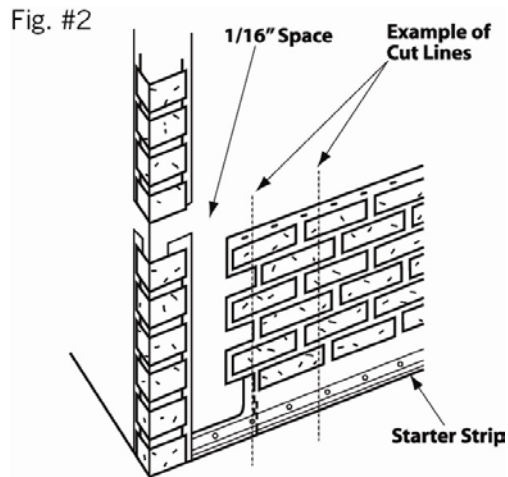
Fig. #1



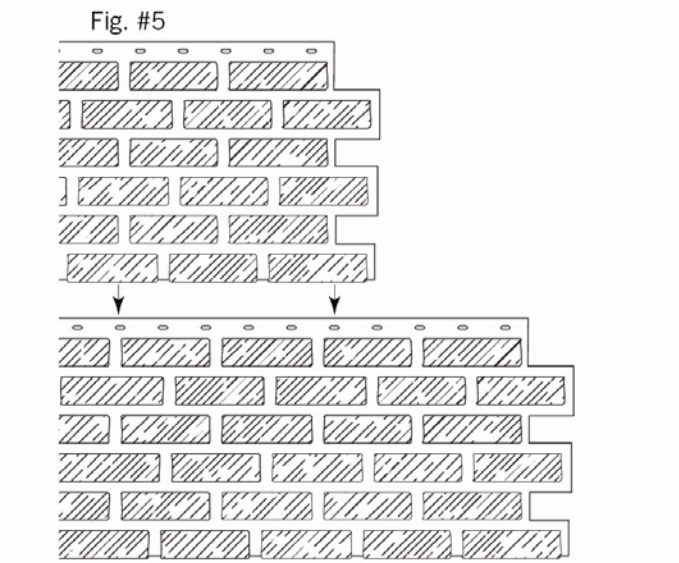
STEP TWO Determine the number of panels needed for the wall by measuring the total length of the wall in inches, subtracting the width of the corner pieces used and dividing by 39 1/4" (the width of one panel exposed to the weather). As you will need to cut the end panel, ensure that it remains at least 12" wide by reducing the size of the starting panel. Be sure not to overlap the mortar joints of the panel below to ensure a pleasing and authentic Brick look is maintained. Do not cut more than one end piece at this time since adjustments will be required for succeeding rows.

STEP THREE: Working from left to right, install the first Brick corner approximately 1/8" below the bottom edge of the starter strip. Slide the first panel left, butting it flush to the corner (Figures 2 and 3). Set the first gently onto the starter strip making sure to properly engage all installation fingers while not overriding the expansion joints (Figure 4). Slide panel left, butting to within 1/16" of the corner. With

Brick panels, be sure to match the horizontal mortar line with the corner (Figure 3).

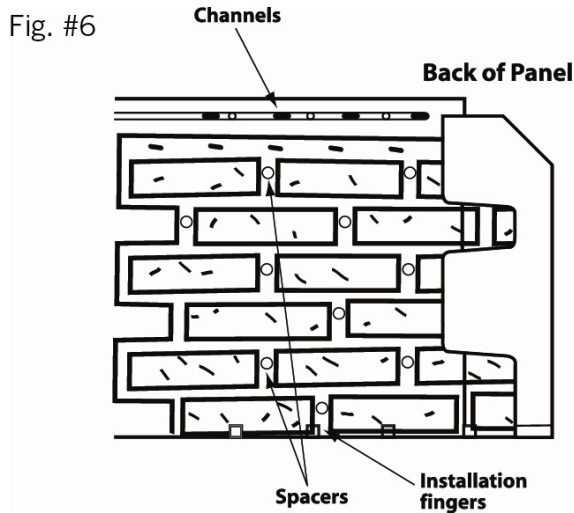


STEP FOUR: Drive nails straight through substrate while ensuring that the nail head only makes light contact with the panel. Hook the next panel into the starter strip and slide it into the first panel. Install the remaining courses repeating steps 1-3. In order to achieve a realistic look of Brick, stagger each subsequent course in increments of 8", offset by 4" (Figures 5). Never force panels down on top of each other. Set them down gently and firmly, but not with excessive force, ensuring that every finger is engaged, and allow the panels to seat themselves.



Hint: Installation is easier by elevating the right side of the panel slightly. Be sure all locking fingers are properly engaged.

STEP FIVE When installing the Brick panels to corners or J-channels, it may be necessary to trim the installation fingers, spacers and channels on the back of the panels within 3" of the corner or J-channel for a better fit (Figure 6). J-channels are made to match the mortar color and are available with 1 1/8" pockets.



STEP SIX Note: Tando provides positive stop posts by the installation fingers on the back panels. Do not force the panels beyond the stop posts when installing succeeding rows. The stops are designed to prevent buckling due to changing temperatures. The panel requires a minimum of five fasteners per panel. The non-corrosive fasteners must be installed into a solid substrate of no less than 7/16" thick.

When attaching the fasteners, be sure they only lightly touch the panel, allowing the panels to move with varying temperatures. The fastener must be installed flush with the panel, so as not to interfere with the succeeding row of panels.

STEP SEVEN Note that panels may expand or contract up to ¼". Normal mortar line spacing is approximately ½". If the temperature is about 30°F, position the panels so the mortar line between them is about 5/8" wide to allow for expansion in warmer weather. If the temperature is about 60°F, decrease the spacing to about ½" thereby allowing for both expansion and contraction as the temperature changes. If the temperature is about 90°F, decrease the space further to 3/8" to allow for contraction in colder weather (Figure 7).

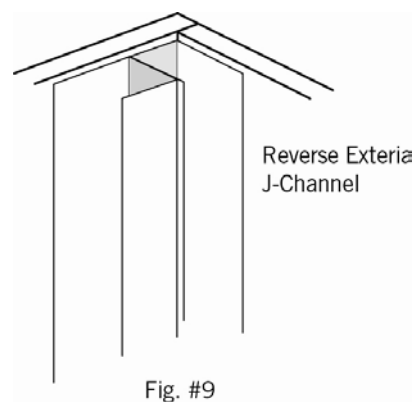
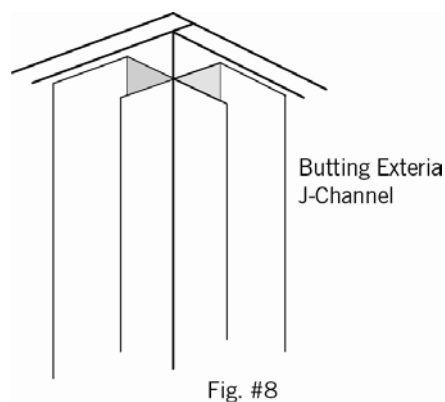
Figure 7

TEMPERATURE	PANEL SPACING
30 Degrees F	5/8"
60 Degrees F	½"
90 Degrees F	3/8"

STEP EIGHT Fitting panel pieces between windows or around openings requires a cut-back spacing of 1/8" when panels are installed in colder temperatures. Similar spacing may also be necessary when fitting panels into gable ends, over roof angles, around light blocks or any other place where adequate panel movement is prevented.

STEP NINE For best results, alternate the start of each successive row of panels by 8" increments. Be sure the right end piece of the row is no less than 12" wide.

STEP TEN Tando J-channels may be used for inside corner treatments or you may scribe and cut panels to fit into the corner. It is recommended to sleeve the corner with vinyl or aluminum coil prior to installation of panels (Figures 8 and 9). Caulk corner after installation.



STEP ELEVEN When completing a wall, face nailing may be necessary. If face nailing is employed, pre-drill a hole in an inconspicuous area, such as a mortar joint. The hole must be larger than the shank of the nail or screw, but smaller than the head, to allow for possible expansion. The head can be covered with matching paint, or Tando mortar fill.

INSTALLING BRICK LEDGE TRIM

Tando Brick ledge trim installs over the top course of panels.

BENDING LEDGE TRIM

Tando Brick ledge trim can be heat-bent and installed around a corner. Before applying heat you must first cut out a v-notch from the ledge trim piece at the point where you plan on bending it (Figure 10).

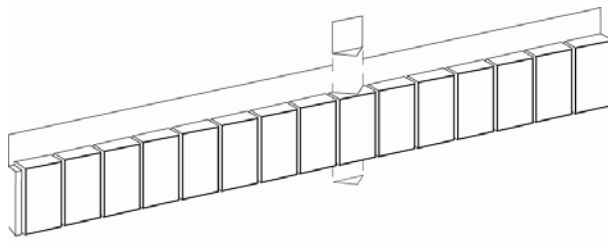


Fig. #10

REMINDERS:

Some adjustment may need to be made at the vertical overlap of two corners (as they are installed) in order to maintain the corner/panel horizontal alignment. There is approximately a 1/2" vertical adjustment available.

Be sure to apply a beading of mortar fill where all brick panels and corners meet (See figure 3)

Fitting panels between windows or around openings requires a cut-back spacing of approximately 1/8" to allow for product expansion.

ATTACHING OBJECTS TO PANELS

Never attach fixtures directly to Tando cladding. When attaching fixtures, use a block and follow the fixture manufacturer's installation instructions.

SPECIAL SITUATIONS AND SUGGESTIONS

SITUATION

1. Panels won't lock together side to side
2. The bottom locking fingers won't lock into the previous row.
3. Panels are buckling on the wall.
4. Panels are not laying down flat.

ITEMS TO CHECK

The wall may not be level and flat. Check previous panels to ensure that all panels and installation fingers are properly seated. (See Basic Guidelines)

Make sure the nails are not restricting panel movement. Check for proper spacing between adjacent panels. Make sure all fingers are engaged into previous panel.