

TimberTech[®] Closed-Joint Cladding Install Guide

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CCRR-0266 (Code Compliance Research Report) is available for TimberTech[®] Closed-Joint Cladding.

TOOLS REQUIRED

TimberTech® Closed-Joint Cladding should be installed using good building principles and in accordance with local building codes and the installation guidelines included below. AZEK® Building Products LLC and its affiliates, successors, and assigns accepts no liability or responsibility for the improper installation of this product. TimberTech Closed-Joint Cladding may not be suitable for every application, and it is the sole responsibility of the installer to be sure any products are a fit for the intended use. Since all installations are unique, it is also the installer's responsibility to determine specific requirements for each application. AZEK recommends that all applications be reviewed by a licensed architect, engineer, or local building official before installation. If you have any questions or need further assistance, please call AZEK Customer Service at 1-800-910-3545 or visit www.AZEKexteriors.com.

Tools Required

TimberTech Closed-Joint Cladding can be installed with a minimum number of readily available tools. Many other tools are available that can be used for installation. All tools should be used per applicable manufacturers' instructions. Some of the basic tool requirements:

- Cordless Driver
- Carpenter Square
- Chalk Line
- Spacing Tools
- Tape Measure
- Miter Saw
- Jig Saw
- Chalk Line/String
- Level
- Safety Glasses

Use the jig saw to cut around obstruction. For best results when cutting, use a power miter saw with a fine-toothed, carbide tipped finish trim blade (12" - 100 tooth min. or 10" - 80 tooth min.) A metal cutting saw and carbide tipped saw blade are recommended for best results when cutting steel channel furring. When working with AZEK products be sure to wear proper clothing and safety equipment. Safety glasses should be used during the entire installation process. Do not use any cordless saws.



Extreme Heat Warning

Be aware of excessive heat on the surface of AZEK products from external sources, such as but not limited to, fire or reflection of sunlight from energy-efficient window products. Low-emissivity (Low-E) glass can potentially harm AZEK products. Low-E glass is designed to prevent passive heat gain within a structure and can cause unusual heat buildup on exterior surfaces. This extreme elevation of surface temperatures, which exceeds that of normal exposure, can possibly cause AZEK products to melt, sag, warp, discolor, increase expansion/contraction, and accelerate weathering.

Current or potential AZEK customers who have concerns about possible damage by Low-E glass should contact the manufacturer of the product that contains Low-E glass for a solution to reduce or eliminate the effects of reflected sunlight.



Important

The outside wall of structure must be weather tight and up to code with a proper weather resistant barrier or other weather-proofing product prior to installing TimberTech Closed-Joint Cladding. TimberTech Closed-Joint Cladding is not designed for nor intended to prevent water infiltration. It is the sole responsibility of the engineer, architect, and installer to ensure the design and installation of the wall and building are code compliant and weather resistant behind TimberTech Closed-Joint Cladding.

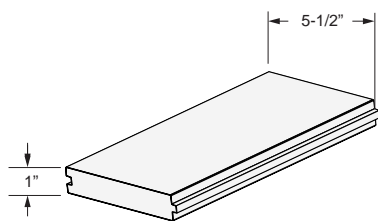
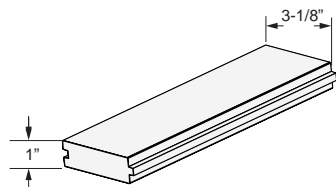


Non Load Bearing Only

TimberTech Closed-Joint Cladding is a non-structural cladding and cannot be used as a load bearing component of the wall.

Products

TimberTech® Closed-Joint Cladding Products



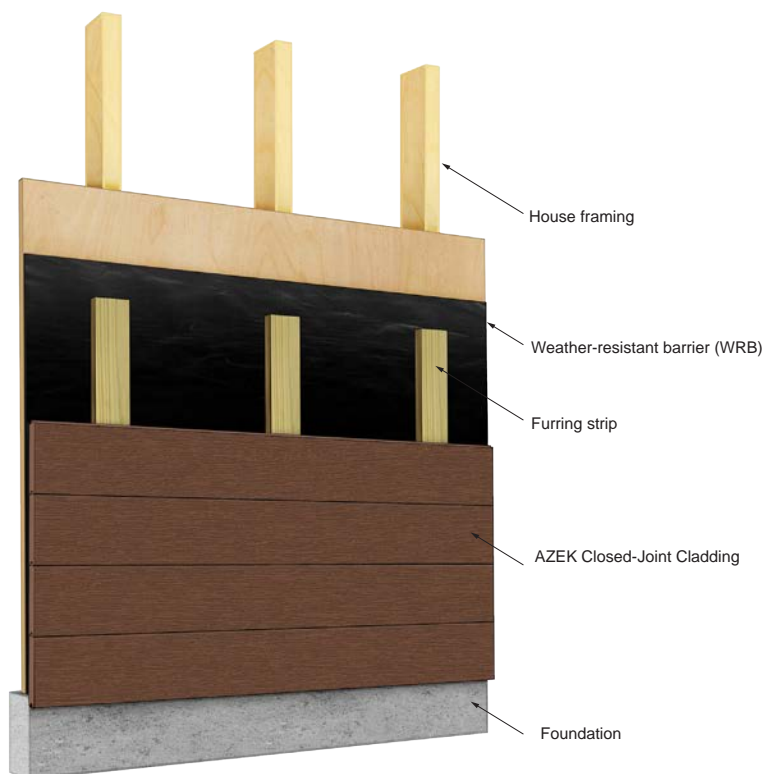
CLOSED-JOINT CLADDING (Vintage & Porch Collections)	5 1/2" WIDTH		3 1/8" WIDTH	
	12'	16'	12'	16'
Standard Thickness 1"				
COASTLINE®	•	•	•	•
WEATHERED TEAK®	•	•	•	•
MAHOGANY	•	•	•	•
DARK HICKORY	•	•	•	•
ENGLISH WALNUT®	•	•	•	•
CYPRESS®	•	•	•	•

WARNING: 20 foot length boards are not approved to be used in cladding applications.

Installation Preparation

Follow these installation preparation best practices to ensure a successful installation of TimberTech Closed-Joint Cladding:

- Prior to installation, be sure the wall is structurally sound, weather-tight, stud locations are identified and marked, and any protruding screws, nails, or staples are removed or pounded in.
- Ensure the finished installation is flat and even by using shims or a planer on wood furring strips. TimberTech Open-Joint Cladding will conform to undulations in the wall.
- TimberTech Closed-Joint Cladding is a one-sided product and must be installed with the grain side out.



Expansion and Contraction

TimberTech Closed-Joint Cladding will expand and contract with changes in temperature, unlike wood, which fluctuates with moisture. The expansion and contraction encountered may result in slight gaps at the board ends or splice joints. To help minimize these gaps, follow these best practices:

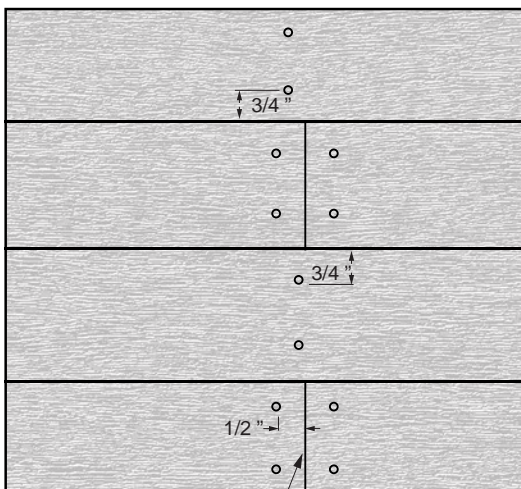
- Cut all factory edges to ensure a clean, square cut using a carbide tipped, finish blade.
- Keep product shaded and as cool as possible prior to installation. Material left in direct sunlight may heat up significantly, and result in larger than normal butt joint openings once cooled.
- Best practice is to install under shaded conditions.
- Regardless of temperature, **all butt joints should be fitted as tight as possible** and the ends should be fastened per our fastening schedule..
- Leave a 1/4" gap around all protrusions, boxes and fixtures. When notching or cutting out product to fit around the protrusions, create a radius corner to limit stress. Install furring strips behind the cladding, around the protrusion and fasten the cladding boards within 1/2" of the cut edges.
- **WARNING: 20 foot length boards are not approved to be used in cladding applications.**

Fasteners

- If installing over a wood framed wall, with 1/2" thick furring strips, AZEK requires a minimum 2 - 1/2" long Cortex or stainless steel fastener. If thicker furring strips are used, a longer fastener needs to be utilized accordingly.
- If installing over a masonry wall with pressure treated 2 x 4 wood furring strips, 2" long Cortex or stainless fastener is required.
- If installing over a metal hat channel, Cortex tappers are required.

Fastening Schedule

3-1/8" Width Fastening



Install butt joints tight

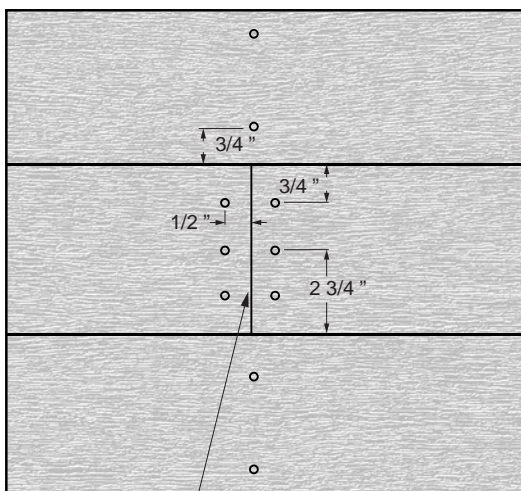
Main Course:

- Use a minimum of 2 fasteners into the face of the board, ensuring to drive through the center of the furring strip and into the structural framing.
- Fasteners need to be placed approximately 3/4" from the edges of the board.
- Failure to properly install fasteners at butt joints can lead to joints opening up over time due to thermal expansion/contraction.

Board Ends:

- Use a minimum of two fasteners into the ends of each board.
- Fasteners need to be placed within 1/2" from the ends, with 2 fasteners 3/4" from the edges.
- Drive fasteners perpendicular into furring strips. Do not angle.

5-1/2" Width Fastening



Install butt joints tight

Main Course:

- Use a minimum of 2 fasteners into the face of the board, ensuring to drive through the center of the furring strip and into the structural framing.
- Fasteners need to be placed approximately 3/4" from the edges of the board.
- Failure to properly install fasteners at butt joints can lead to joints opening up over time due to thermal expansion/contraction.

Board Ends:

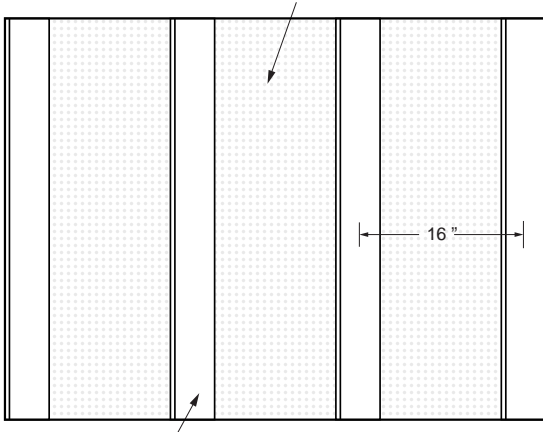
- Use a minimum of three fasteners into the ends of each board.
- Fasteners need to be placed within 1/2" from the ends, with two fasteners 3/4" from the edges and one fastener in the middle.
- Drive fasteners perpendicular into furring strips. Do not angle.

1

Furring Strips for Horizontal Application

HORIZONTAL APPLICATION

Weather-resistant barrier (WRB)



Min 1/2" x 2" furring. Must use pressure treated plywood. Warning: do not use OSB as a furring strip.

- If installing over wood/metal framing, minimum 1/2" x 2" pressure treated plywood furring strips are required and should be wrapped with a UV stable, black, vapor permeable water resistive barrier.
- If using metal Z-girts or hat channel, make sure they are fastened into the structural framing behind the sheathing securely, using the appropriate fasteners as recommended by the manufacturer or project engineer of record.
- If installing over masonry, minimum nominal 2" x 4" pressure treated furring strips are required and should be wrapped with a UV stable, black, vapor permeable water resistive barrier.
- Fasten wood furring strip into the structure with a minimum 2" long fastener, every 12" OC.
- **WARNING: Do not use OSB as a furring strip.**



Important

The wall or furring strips may move over time due to settling of the ground or building, age of the building, or expansion and contraction from moisture or temperature. To avoid wicking water into furring strips leave a gap to grade or use furring strips approved for ground contact.



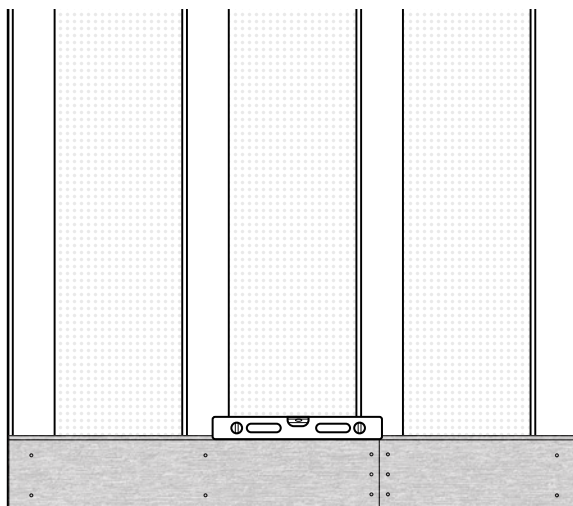
Important

After the furring members are installed, run string lines to ensure the faces of the furring strips are in plane. TimberTech Closed-Joint Cladding will contour to undulation in the furring strips. It may be necessary to shim or plane the furring strips due to thickness variations in lumber or variations in the wall to which the furring strips are attached.

2

Starting Course & Fastening

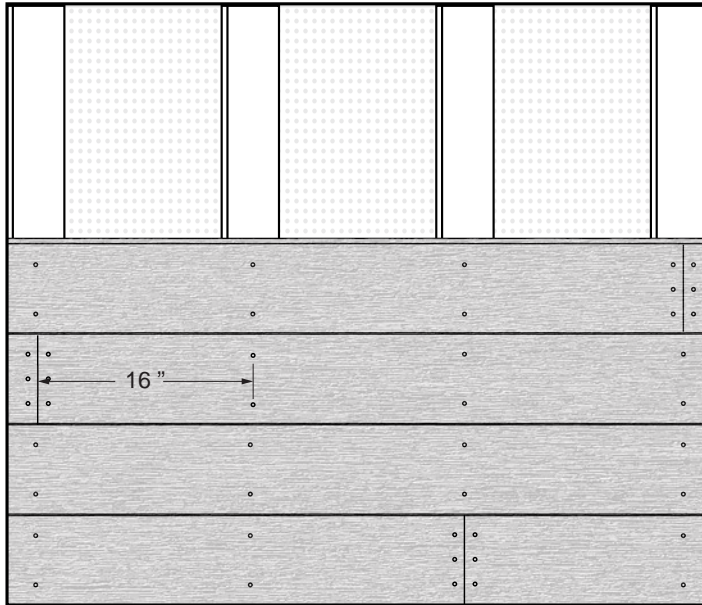
HORIZONTAL APPLICATION



- Choose the starting location of the first course. Position the board with the tongue facing up and ensure it is level prior to fastening.
- For solid wood furring/sheathing assemblies, use the recommended fasteners and fastener lengths from the fastener schedule above.
- The multi-width offering of TimberTech Closed-Joint Cladding has varying fastening schedules outlined on pages 5. It is important to fasten each width according to this fastening schedule.
- Fasten from the center out, or from one end to the other. Do not fasten each end and then fasten to the middle.
- **Install all butt joints tight no matter the temperature.**
- Frequently check for level as additional boards are installed up the wall.

3 Spacing of Boards

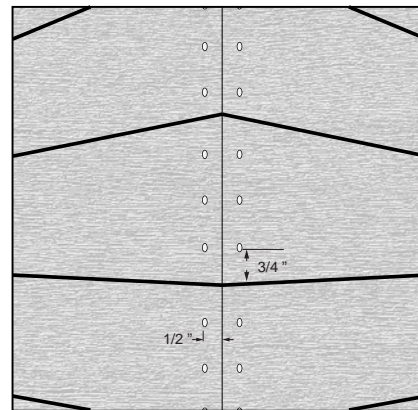
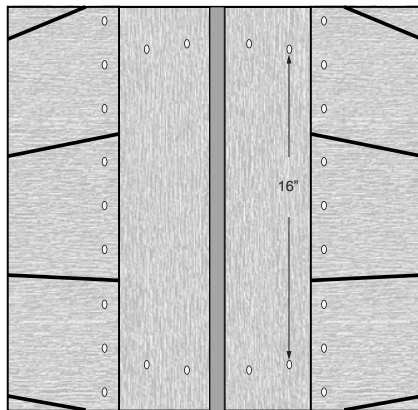
HORIZONTAL APPLICATION



- Place the next course of Cladding with the groove setting onto the tongue of the course below.
- Fasten the course as outlined in the fastening schedule on Page 5.
- If a butt joint is necessary, always center it over a plywood furring strip and make sure fasteners go through the wall build-out and into the structural framing.
- For best performance and aesthetic, stagger butt joints across multiple furring strips to reduce any pressure on a single strip. Typically 32" or 48" depending on structural framing layout.

4 Adjoining Walls

HORIZONTAL APPLICATION



- For use on adjoining walls, be sure to check the level of each course frequently.
- TimberTech Closed-Joint Cladding can be installed with mitered corners. Depending on the wall framing layout, additional structural blocking may be required at transitions to ensure a structural mounting area. Review plan drawings to determine additional blocking requirements prior to cladding installation.
- Additional furring may also be needed around wall openings such as doors and windows.
- For mitered corners, the corner piece must be no more than 5 feet in length from outermost edge of the miter. Vertical outside corners may be constructed using TimberTech Open-Joint Cladding boards (square shouldered) running vertically, or with AZEK Trim, AZEK Cornerboards, or aluminum corner profiles.
- Vertical outside corners created with Cladding, Trim, or Cornerboards must be furred out and fastened with 2 fasteners every 12".

5 Trimming Windows & Doors



- TimberTech Open-Joint Cladding boards or AZEK Trim can be used as a casing around windows or doors. Using Closed-Joint Cladding boards will show an exposed groove.

Factory edge facing outwards

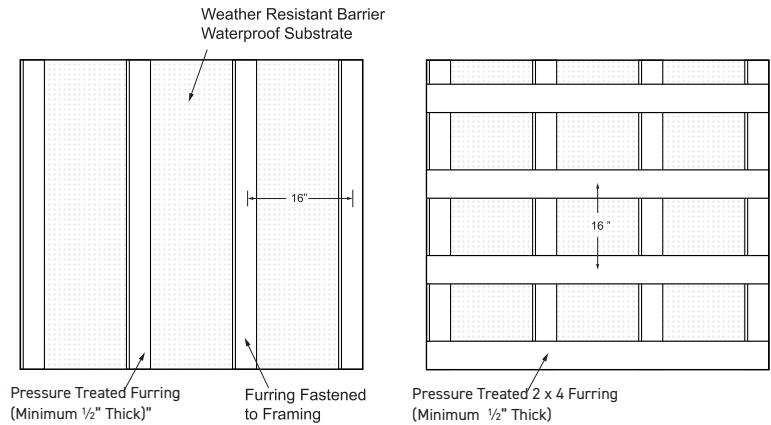
Rip cut edge facing inwards

- The example shown on the left is using an TimberTech Open-Joint Cladding board (square shouldered) that was rip cut to width as a side jam extension. The factory edge is installed facing outward and the rip cut edge toward the interior of the building (not exposed).
- Window jamb extensions created with Cladding or Trim must be fastened with two fasteners every 12" and within 1/2" of each end cut and into structural framing.

1 Furring Strips for Vertical Install

VERTICAL APPLICATION

- First, create 1/2" x 2" pressure treated plywood furring strips, wrap in a black, vapor permeable water resistive barrier and install vertically, every 16" OC, into structural framing.
- If stud framing is 24" OC, then reduce furring spacing to 12" OC utilizing the same fasteners recommend above. This will create a necessary drainage plain for incidental water.
- After initial furring strips are installed, creating a drainage plane, attach pressure treated 2 x 4 furring strips, 16" OC laterally, again wrapping in black, vapor permeable wrb so that the furring system is not viable once the cladding is installed. Make sure to use minimum 4" wood screws to ensure enough fastener embedment into the structural framing.
- Metal hat channels may also be used horizontally, provided they are fastened into the structure and pitched to drain any incidental water.



Important

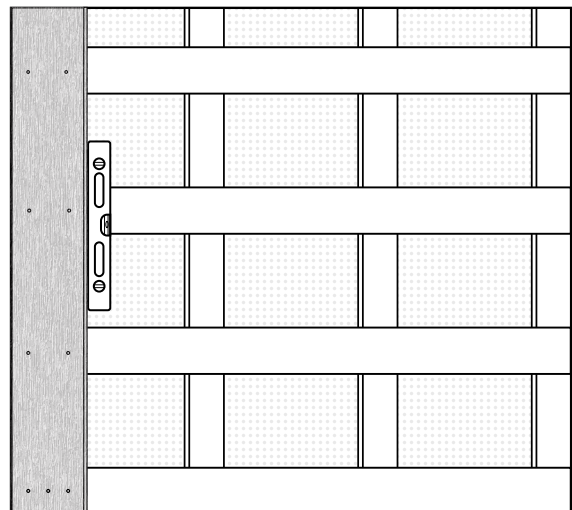
To avoid wicking water into furring strips leave a gap to grade or use furring strips approved for ground contact.

After the furring members are installed, run string lines to ensure the faces of the furring strips are in plane. TimberTech Closed-Joint Cladding will contour to undulation in the furring strips. It may be necessary to shim or plan the furring strips due to thickness variations in lumber or variations in the wall to which the furring strips are attached.

2 Starting Course & Fastening

VERTICAL APPLICATION

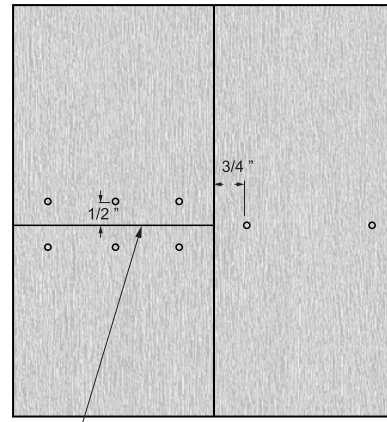
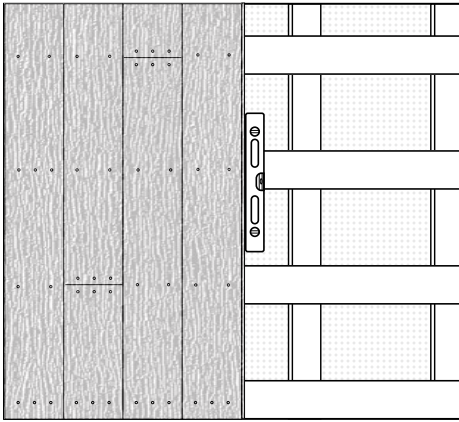
- Choose the starting location of the first course. Position the board with the tongue facing up, and ensure it is plumb prior to fastening.
- Use 2" Cortex or stainless steel fasteners and install into the 2 x 4 furring strips or metal hat channel, every 16" OC. If installing over metal hat channel, use Cortex Driller Screws for metal framing.
- The multi width offering of TimberTech Closed-Joint Cladding has varying fastening schedules outlined on Pages 5. It is important to fasten each width according to this fastening schedule.
- Fasten from the center out or from one end to the other. Do not fasten each end and then fasten to the middle.
- **Install all butt joints tight no matter the temperature.**
- Check for plumb as boards are installed along the wall.



3

Spacing of Boards

VERTICAL APPLICATION



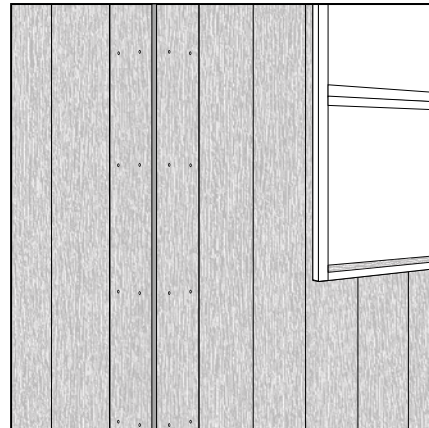
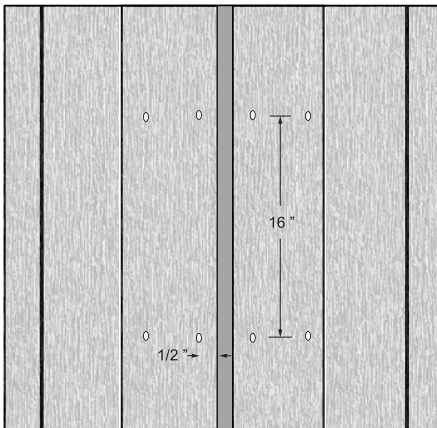
Install butt joints tight

- Place the next course of Cladding with the groove setting onto the tongue of the course next to it. Make sure the course is fully seated, tapping in gently with a rubber mallet, or hammer and wood blocking.
- Fasten the course as outlined in the fastening schedule on Page 5.
- To minimize the stress on individual furring strips, stagger butt joints across multiple furring strips. For best practices, stagger butt joints 32" from one course to the next.
- If a butt joint is necessary, always center it over a pressure treated 2 x 4" furring strip or metal hat channel.

4

Adjoining Walls

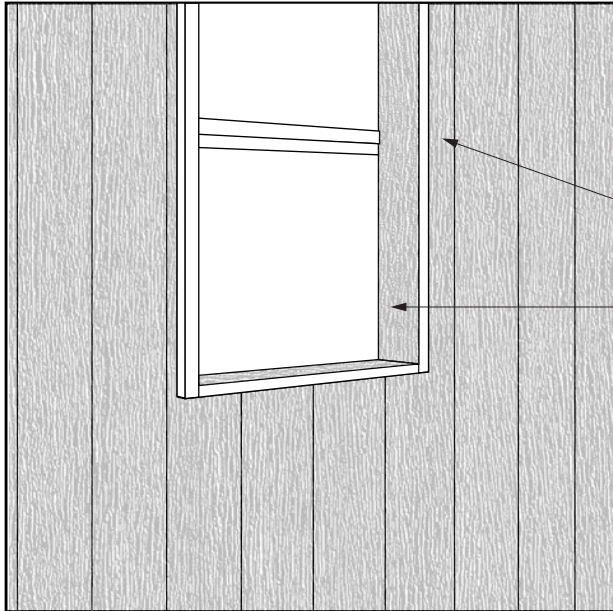
VERTICAL APPLICATION



- For use on adjoining walls, but be sure to check the level of each course frequently.
- TimberTech Closed-Joint Cladding can be installed with mitered corners. For best results, build out the corners with additional furring strips so the cladding can be fastened close to the ends.
- Additional furring may also be needed around wall openings such as doors and windows.
- Vertical outside corners may be constructed using TimberTech Open-Joint Cladding boards (square shouldered) running vertically or with AZEK Trim, AZEK Cornerboards, or aluminum corner profiles.
- Vertical outside corners created with Cladding, Trim or Cornerboards must be furred out and fastened with two fasteners every 12".

5

Trimming Windows & Doors



- TimberTech Open-Joint Cladding boards or AZEK Trim can be used as a casing around windows or doors. Using Closed-Joint Cladding boards will show an exposed groove.

Factory Edge Facing Outwards

Rip Cut Edge Facing Inwards

- The example shown on the left is using an TimberTech Open-Joint Cladding board (square shouldered) that was rip cut to width as a side jamb extension. The factory edge is installed facing outward and the rip cut edge toward the interior of the building (not exposed).
- Window jamb extensions created with Cladding or Trim must be fastened with two fasteners every 12" and within 1/2" of each end cut.

Storage & Handling

- Store TimberTech Closed-Joint Cladding on a flat and level surface.
- Store products in a cool, shady area prior to installation.
- Do not stack bundles over eight units high.
- Always leave factory applied protective wrap. If stored outdoors, the product must be covered with non-translucent material.
- Use care when handling product with a forklift, as forks can easily damage the material.
- If banding is used, use protective corners to prevent indents from the bands.
- Avoid storing TimberTech Closed-Joint Cladding in areas of excessive heat, such as on top of asphalt.



Excessive Construction Debris

It is important during construction that TimberTech Closed-Joint Cladding products stay clear from excessive buildup of dirt, sand, and dust from tile, concrete, landscape blocks, or any other masonry products. If these materials are not removed immediately, the cladding surface will become difficult to clean and can potentially damage the cladding's surface finish.

Do not use TimberTech Closed-Joint Cladding products as a work surface.

If a buildup does occur please refer to the Care and Cleaning section in the installation guidelines or website www.AZEKexteriors.com.

Considerations

- Advanced PVC Decking is designed to mimic the look of real wood, and like real wood, there will be a slight difference in color and grain pattern from board to board. This is intentional and part of the manufacturing process, giving Advanced PVC Decking the most realistic and wood-like appearance possible. This variation is purely aesthetic and does not or will not affect the performance of the product. When working with multiple units of decking, consider pulling boards randomly to mix rather than completing one unit at a time. It is always a good practice to layout deck boards in different lighting conditions/angles before final fastening.
- Depending on the environmental conditions, TimberTech Closed-Joint Cladding colors may appear to lighten over time as part of a natural weathering process.
- Please be aware that excessive heat build on the surface of AZEK products from external sources such as, but not limited to, fire or reflection of sunlight can potentially lead to damage. For example, sunlight which may be reflected by low-emissivity (Low-E), glass, can potentially lead to damage of exterior building products, including TimberTech Closed-Joint Cladding and AZEK Trim, due to elevation of surface temperatures that far exceed that of normal exposure of the same materials to direct sunlight. Possible damage by such reflected concentrated light may include melting, sagging, warping, distortion, surface discoloration, increased expansion or contraction, and unusual weathering.
- Static buildup is a natural occurring phenomenon that can occur with many plastic-based products including PVC Cladding. It could occur with AZEK products under the right conditions.
- Although TimberTech Closed-Joint Cladding products are cooler to the touch than many other cladding products in similar colors, all cladding products will get hot in the sun. Additionally, generally speaking, the darker the color, the hotter it will feel.
- Always remove jobsite dust, clay, dirt, mud, and other construction products from TimberTech Closed-Joint Cladding quickly. Do not allow construction dirt and debris to sit on the surface.
- **IMPORTANT:** Do not allow airborne dust from concrete, landscape blocks, or any masonry products to accumulate on the TimberTech Closed-Joint Cladding surface as it may damage the surface. Do not cut any products on or near TimberTech Closed-Joint Cladding.

Care & Maintenance

To keep your TimberTech Closed-Joint Cladding looking its best:

- Some products, such as sunblock or insect repellent, contain chemicals that may alter the surface of TimberTech Closed-Joint Cladding and AZEK Trim. Check product labels and consult with the manufacturer as to product compatibility with plastic materials prior to use on or near TimberTech Closed-Joint Cladding or Trim products.
- Do not get any PVC glue or similar product on the surface of any TimberTech Closed-Joint Cladding or Trim products as it may discolor and permanently damage the surface.
- To clean TimberTech Closed-Joint Cladding, use TimberTech DeckCleaner™ with a stiff natural fiber brush or another all purpose cleaner such as Simple[®] Green.
- Be sure to thoroughly rinse after cleaning to prevent discoloration that could occur with residual cleaner drying on surface.
- Always read the cleaning products manufacturer's specific information before using any product on your TimberTech Closed-Joint Cladding and follow their instructions. It is also a good idea to test the cleaner on a scrap piece or inconspicuous area of the wall to make sure it does not harm the surface.
- **WARNING:** Keep children and pets away from cleaning products on the surface of Open-Joint Cladding until it is dry.
- *Note that composite deck and composite cladding cleaners such as Corte Clean[®], Thompson's[®] Water Seal[®] Oxy Action, Olympic[®] Premium Deck Cleaner, or other cleaners specified as composite deck cleaners, in powder or liquid form, **SHOULD NOT** be used with TimberTech Closed-Joint Cladding or Trim. TimberTech Closed-Joint Cladding is a PVC-based polymer, not a wood/plastic composite.
- These guidelines may not encompass all installation, care and maintenance topics. For additional questions about TimberTech Closed-Joint Cladding installation, care, or maintenance, call 1-800-910-3545.

Warranty

AZEK Building Products are made exclusively from technologically advanced materials designed to provide years of enjoyment. TimberTech Closed-Joint Cladding products are covered by a Lifetime Limited Warranty for residential applications and a 30-year Limited Warranty for commercial applications. The warranty covers certain defects resulting in splitting, cupping, splintering, blistering, peeling, flaking, cracking, rotting or structural damage from termites or fungal decay, as further described in the Limited Warranty. TimberTech[®] Closed-Joint Cladding products are also covered by a 50 year limited residential fade and stain warranty and a 30 year limited commercial fade and stain warranty. Visit AZEKexteriors.com/warranty to view complete warranty information.

The diagrams and instructions in this brochure are for illustration purposes only and are not meant to replace a licensed professional. Any construction or use of the product must be in accordance with all local zoning and/or building codes. The consumer assumes all risks and liability associated with the construction or use of this product. The consumer or contractor should take all necessary steps to ensure the safety of everyone involved in the project, including, but not limited to, wearing the appropriate safety equipment. Except as contained in the written limited warranties, AZEK does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.



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