

altro

# Altro Fortis Titanium™ 15 system installation guide

A complete written and illustrated guide

updated 09/12/23

This publication is designed to provide technical information to assist in the installation of Altro Fortis Titanium™ 15.

## Storage and handling

If storage temperature is below 68°F (20°C), Altro materials must be moved to a warmer place and allowed to reach this temperature before installation. The room temperature must not be below 68°F (20°C) and the wall substrate temperature between 65°F (18°C) and 80°F (27°C).

- Altro Fortis Titanium™ 15, adhesives, and accessories must be stored in enclosed dry conditions and not subjected to freezing or excessive heat. Heat above 140°F (60°C) will distort and damage the material, cold temperatures will make the material brittle and temperatures below 23°F (-5°C) should be avoided during the storage process.
- When stacking pallets they should not be stacked more than 8 pallets high and stacked flat without bumps or rolls and in a square and well aligned configuration, safety precautions should be taken to secure pallets to prevent shifting or falling.
- If more than one pallet of material is used, use material in sequence.
- Panels and all other materials should be moved into the acclimated worksite 72 hours prior to installation. HVAC is to be up and running with ambient temperatures between 68°F (18°C) and 80°F(27°C) before, during and there after the installation.
- Panels and all other materials must be checked for defects before installation. Do not install materials with visible defects.
- Check carefully to see that panels match in shade. If a shade match cannot be accomplished, do not install. Contact your Altro distributor.
- Wear appropriate safety equipment and eye wear and all other items that are required by local, state, and/or federal guidelines and regulations.

## Wall substrate preparation

Altro Fortis Titanium™ 15 panels must be installed on solid substrates. Ensure that the area is smooth, clean, dry, and flat. Any debris, loose paint, plaster, and dust must be removed. Very absorbent / porous substrates (particularly plaster finishes and very dusty or unprimed sheetrock) must have one coat of paint primer (Valspar, Glidden,

Benjamin Moore, or equal) applied to the surface a minimum of 12 hours prior to the installation.

## Concrete and concrete masonry units

All concrete or CMU walls must be made smooth with appropriate patching compound because the unevenness of the wall may cause telegraphing. Altro strongly suggests that a test area be done to ensure desired adhesion is achieved.

## Cutting and fitting

Altro Fortis Titanium™ 15 panels can be cut by many different means. The most effective cutting method is by using a carbide-tipped fine-toothed circular saw. For cut-outs, such as switches, outlets and rectangular shapes use a jig saw or oscillating multi tool. For pipe penetrations or round shapes, use a step drill bit or fine tooth hole saw. Be sure to leave a minimum 1/16" gap at all moldings, openings, fastener holes, terminations, and panel edges. Do not fit panels tightly. Always wear proper personal protective equipment when handling, cutting, and installing panels.

## Prefabricated internal and external corners

Prefabricated corners are 6" x 6" with available heights of 48", and 118". Wipe back of corner with anti-static spray and a cloth prior to adhesive application. When using Altro W157, trowel adhesive on the back of the panel from side-to-side and from top to bottom. The Altro W147 spray adhesive can be applied to the back of the corner or the wall substrate. Protect surrounding areas from overspray. Use a 3-wheeled wall roller to roll entire corner to ensure proper bond to wall substrate.

## Panel installation

For full height installations it is recommended to work off a datum/level line. This line is used for the calculation of measurements for ceiling/floor height, outlets, pipes, etc, and will ensure the following panels are installed plumb.

For wainscot installations a datum/level line should be established at the specified height.

Prepare the first panel by making any necessary cutouts or scribe the edge to fit the preformed inside or outside corner if applicable. Allow 1/16" gap around abutments. Wipe back of panel with anti-static spray

and a cloth prior to adhesive application. When using Altro W157, trowel adhesive on the back of the panel from side-to-side and from top to bottom. The Altro W147 spray adhesive can be applied to the back of the panel or the wall substrate. Protect surrounding areas from overspray. Adhesive must be installed to within 1/8" of panel edges. If overlapping any existing flooring or non-porous base system apply 3 - 1/4" beads of sealant to back of panel along the bottom 2" of the panel. Use a 3-wheeled wall roller to roll entire panel to ensure proper bond to wall substrate.

**Note: backfill may be needed just above covered flooring to limit telegraphing.**

### Adhesives and trowel notches

**Altro W157**, a water-based acrylic adhesive, is suitable for surfaces in dry, climate-controlled areas and may only be used with absorbent substrates (drywall, wood, porous concrete/block). The recommended trowel notch is PRB 1/8th square notch. All substrates must be smooth to ensure proper adhesive bond.

**Altro W147**, a versatile water-based acrylic blend spray adhesive, is suitable for surfaces in dry climate-controlled areas and for most all absorbent and non-absorbent surfaces. All substrates must be smooth to ensure proper adhesive bond.

### Butt joint seams

Altro Fortis Titanium™ 15 panels and prefabricated corners can be specified and installed with butt joints seams and must only be used in temperature-controlled environments of 75°F +/- 5°F (24°C +/- 3°C) during and after the installation. Butt joint seams are to be 1/32" wide.

### Color-match sealant seams

Altro Fortis Titanium™ 15 panels and prefabricated corners can be specified and installed with a color match sealant. When the seams are caulked a space of a minimum of a 1/16" is required. Spacers must be used during the installation to ensure a consistent seam. The seam is filled with a color matching sealant after the adhesive has fully cured.

### Color match sealant application

Once panels and corners have been properly installed with appropriate spacing and adhesive has cured the color match sealant can be applied to the seam.

1. Apply masking tape on each side of the seam, this prevents excess sealant from getting on the panel.
2. Apply approximately 1/8" bead of color matching sealant to the seam. Be sure enough is applied to completely fill the seam.
3. Immediately remove surplus sealant with putty knife or similar ensuring it is flush with the panel.
4. Remove masking tape
5. Remove any excess sealant from panels immediately with a clean cloth and warm water.

### Fixture installation

Allow adhesive to set a minimum of 24 hours or until panels are firmly bonded to wall prior to fixture installation. When installing fasteners through a finished and completed Altro Fortis Titanium™ 15 installation make sure to leave a minimum 1/16" gap all the way around the fastener to allow for panel expansion and contraction.

### Sealing Altro Fortis Titanium™ 15 panels

Place a continuous bead of sealant along all panel edges and protrusions upon completion of installation. To remove excess sealant, use denatured alcohol immediately.

### Cleaning

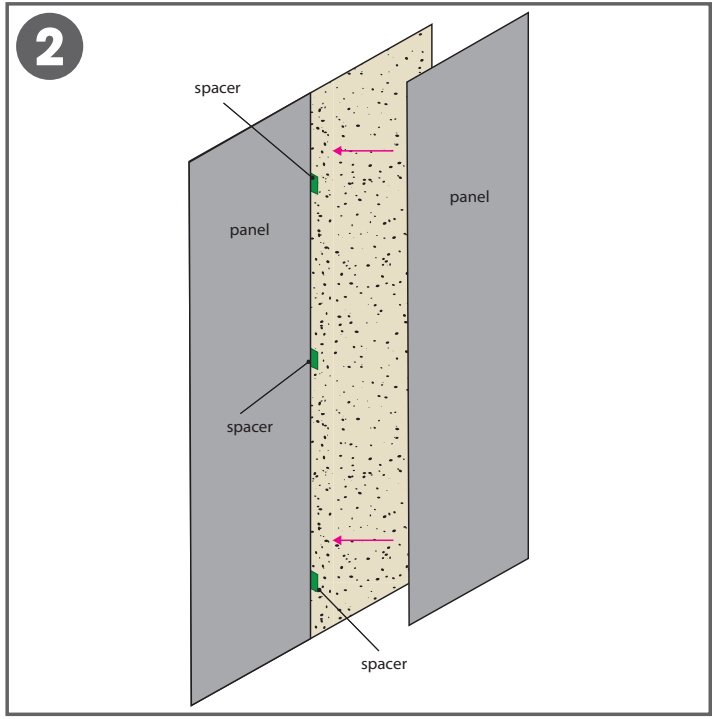
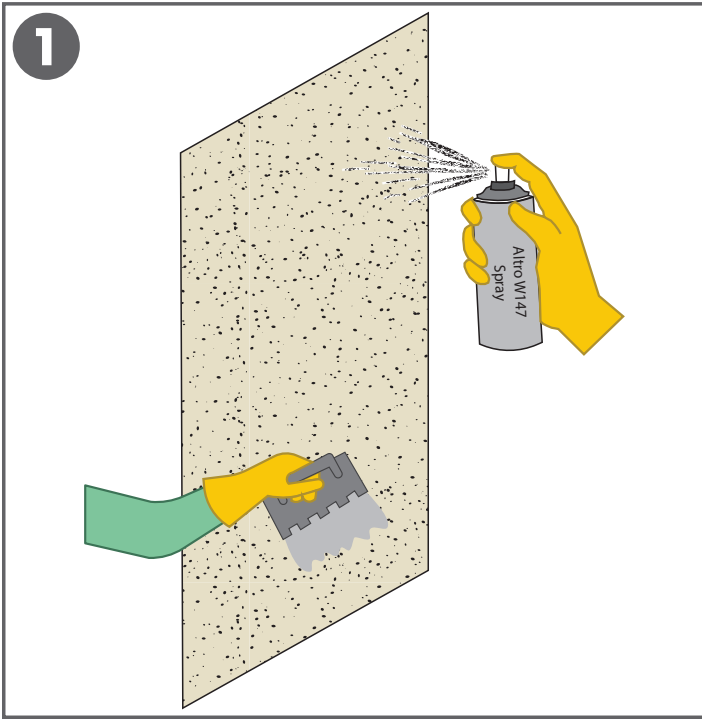
Clean up any wet acrylic adhesive and/or wet spray adhesive with soap and water. After installation, remove protective plastic coating and wipe down with anti-static solution. Panels may be cleaned with AltroClean 44 cleaner and a microfiber towel.

Continue with regular maintenance as detailed in our maintenance guide on altro.com.

### Adhesive selection *additional notes*

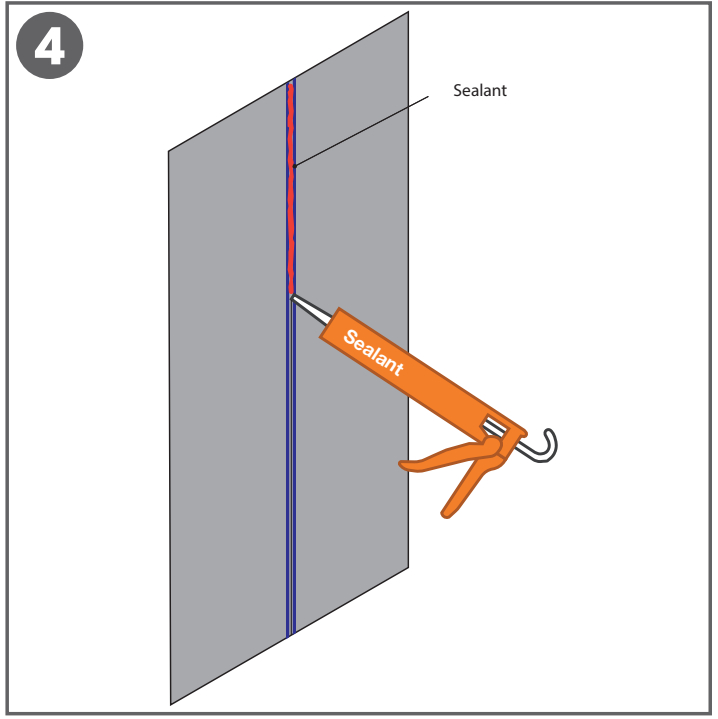
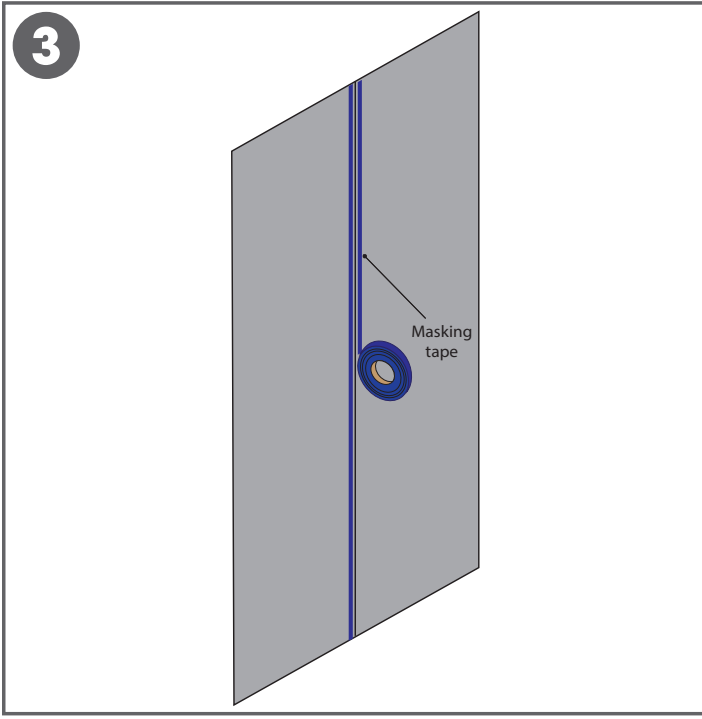
Substrate	Altro W157 acrylic adhesive	Altro W147 spray adhesive
Drywall minimum 5/8" thick	A, B, and D	A and B
Plywood minimum 3/8" thick	B and E	B and E
Metal	D	Acceptable
Plaster	B and E	B and E
Smooth concrete	B	B
Painted	D	C

- (A) All gypsum joint compound needs to be primed with a paint primer.
- (B) Very absorbent surfaces must be primed with one coat of a PVA primer.
- (C) A bond test is advisable to check adhesive does not react with paint.
- (D) Altro W157 should not be used for bonding to moisture resistant substrates.
- (E) Test for moisture with a GE Protimeter, which should give a maximum reading of 16% wood moisture equivalent (WME).



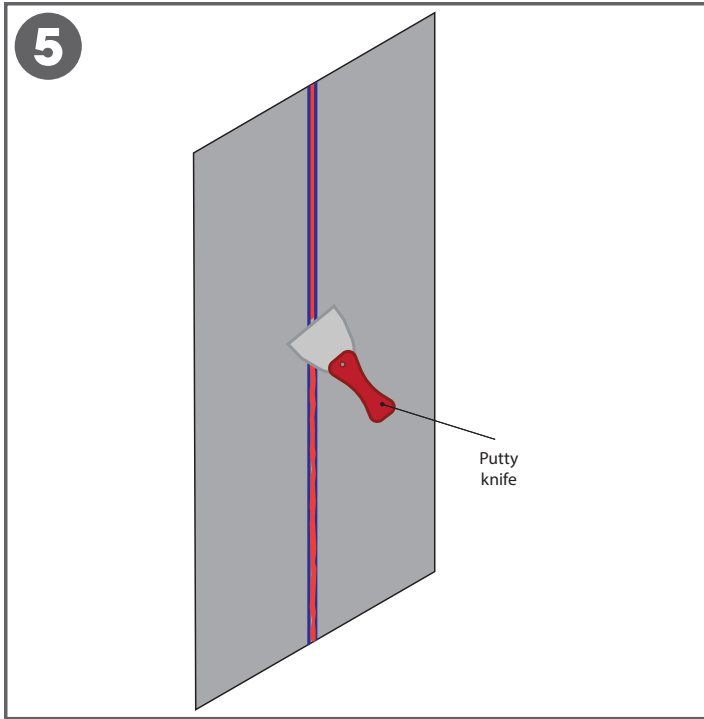
1. Apply adhesive as directed in the Alto Fortis Titanium 15 installation guide. Adhesive can be applied to the wall or back of panel.

2. Install panels per installation instructions. Seam is not to be less than 1/16". Use a spacer to ensure uniform seam.

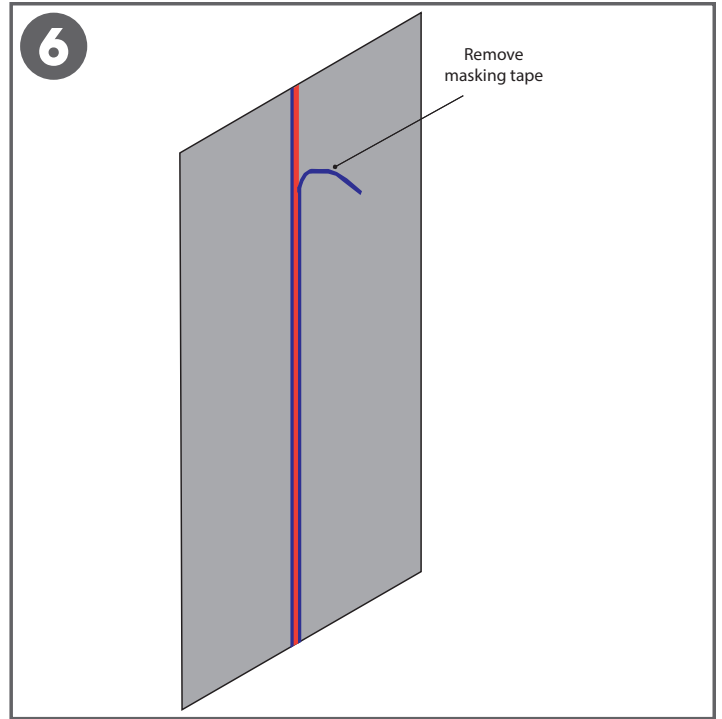


3. Allow adhesive to fully cure. Place masking tape on each side of the seam to prevent excess sealant from getting on the panels.

4. Apply 1/8" bead of sealant to the seam. Ensure that an ample amount is applied and the seam is completely filled. Approximate coverage is 90'-100' per tube.



5. Immediately screed off the excess sealant. Ensure it is flush with the panels.



6. Remove all masking tape.