



Installation guide for Altro Whiterock™ Digiclad

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Digitally printed wall panels from Altro allow you to reproduce custom images and artwork onto Altro Whiterock wall panels to create durable, vibrant design options for a variety of applications.

Altro Whiterock Digiclad utilizes a liquid hard-coat technology to provide superior stain and scratch resistance. It can be coated with either gloss or matte finishes and comes with a 10-year warranty.

Limitations

Altro Whiterock Digiclad panels can be applied to most surfaces. They should however, not be installed near a heat source such as, steam kettles, pizza ovens, cooking ranges, steam rooms, etc., or where exposed flame or severe heat could cause distortion of the panel.

Altro Whiterock Digiclad panels should not be exposed to temperatures above 140° F (60° C). **Do not thermoform.**

Adhesives

Altro W157 – permanent installation

Water-based acrylic adhesive suitable for surfaces in dry, climate-controlled areas and only to be used with absorbent substrates.

Altro W147 – permanent installation

Versatile non-toxic, water-based spray adhesive suitable for surfaces in dry, climate-controlled areas. Recommended for butt seams applications only.

Altro W39 – permanent installation

Two part polyurethane adhesive suitable for absorbent and non-absorbent substrates. When in doubt use this adhesive.

VELCRO® Brand hook and loop tape – removable installation

Refer to our 1" VELCRO® Brand hook and loop tape installation guide for full details.

Cutting instructions

The most effective way to cut Altro Whiterock Digiclad is with a track saw. It is recommended to use a carbide-tipped blade with at least 60 teeth. To ensure the cut does not damage the panel, place a strip of delicate surface tape at the location of the cut. Upon completion of the cut, the tape can be removed.

Seam methods

Digiclad panels can be joined with printed 1 part and 2 part joint strips, butt joint, or half lap seam methods.

1. Joint strips are extruded PVCu trims available either as a 1 part "H" trim for secure environments or 2 part "H" trim. All trims incorporate a moisture resistant gasket seal on the inner edges.
2. Butt joint- A flush seamless joint where the two square edges of the Altro Whiterock Digiclad panels are butt together. When ordering the butt seam method, the panels will be slightly trimmed at the factory for a flush installation. Actual panel size will be indicated on digital image proof supplied by the factory during the design process.

It is not recommended that Altro Whiterock Digiclad be heat-welded with the exception of the outer seam edges where it will abut non printed Altro Whiterock. If heat welding, the Altro Whiterock Digiclad must be specified at the time of the order to allow for the hard coat to be offset from panel edge.

Installation-substrate preparation

All surfaces must be smooth, sound, dry, and free of contamination. The walls should be cleaned before installing Altro Whiterock. The working environment must also be dust free. Failure to comply with these conditions will reduce the bond strength between the adhesive and substrate and may cause the Altro Whiterock panels to de-bond.

1. All substrates to be dry to 16% WME (wood moisture equivalent) on Protimeter 'Survey master' equipment.
2. All loose, flaking paint and dust to be removed.
3. Friable surfaces to be removed or made sound.
4. All surfaces to be free from grease. Ceramic tiles to be thoroughly cleaned and de-greased, rinsed and left to dry.
5. Loose tiles are to be removed and the area is to be filled with appropriate patching compound.
6. Depressions in substrate surface should be filled with appropriate patching compound.
7. All electrical switches, power points etc., should be in a first fix/

installation ready state. All electrical equipment should only be moved or altered by a qualified electrician.

8. All plumbing should have fixtures removed to a first-fix or installation ready state and “tails” left protruding from the substrate. Altro Whiterock panels can then be drilled and slid over the pipe tails. All holes should be drilled 1/8” (3mm) oversize to allow for expansion, then sealed with Altro sanitary sealant. Plumbing should always be done by a qualified plumber.
9. Hot pipes and steam pipes should be insulated and a 1/4” (6mm) expansion gap should be created when installing panels around these pipes, then sealed with sanitary sealant.
10. All pipes, fixing bolts, etc. extending through the Altro Whiterock panels should have a minimum 1/8” (3mm) expansion gap and be sealed using Altro sanitary sealant.
11. Door frames and door casings must be in place before Altro Whiterock is installed.
12. Prior to installation, it is advisable to complete any painting which meets Altro Whiterock, as the sanitary sealant used at junctions is unpaintable.
13. Priming of dusty and overly absorbent surfaces may be necessary. Use 1 coat of any readily available water-based primer (Valspar, Benjamin\Moore, Glidden, or equal).

Datum line

When surface preparation has been completed use a datum line for the calculation of measurements to ceiling height, outlets, and pipes etc. and to ensure the sheets are plum as the installation proceeds. The datum line should be installed at eye level on the wall and should be done with a laser for accuracy. Selection of the datum line is very important, floor levels can be uneven etc.

Altro Whiterock Digiclad prints can sometimes run across many panels. Each printed panel must match and correspond with the next one, any error in alignment will be immediately visible. When the first panel is installed to the selected datum height all the corresponding panels in the installation will follow this initial panel so there is no room for discrepancies. Any discrepancies over the floor or ceiling finished heights could show as gaps, therefore measurements must be taken before the first sheet is installed to allow for any trimming of these sheets, which may have to be carried out at the top and bottom if the print is across many sheets. A series of measurements should be taken where the Altro Whiterock Digiclad is to be installed in the room from datum to subfloor or (ceiling if required) and ensure that when choosing a datum height, that it captures any runs or falls.

Once all measurements have been taken from the wall, they can then be transferred on to the datum on the wall panel. When the panel is finally fitted to the wall, the datum line on the Altro Whiterock Digiclad panel edges must line up with the datum line on the wall.

Panel preparation

It is important to always protect the printed face of the panel. When creating the datum line, place delicate surface tape (ensure the tape doesn't permanently bond) allowing the datum line to be marked onto it rather than the face of the print. The edges of the panel will have been routed to ensure the squareness of each edge, these front edges of the sheets must not be chamfered when doing butt seam.

Place panel on the workbench and inspect for any damage. Lightly mark your datum on the tape, taking care not to press too hard, thus damaging the surface of the panel.

Take measurements from the substrate, and then transfer these to the sheet. If necessary, cut the panel ensuring that the panel is well supported to reduce any risk of stress in the material when being cut.

Always check your work by dry fitting the panel. If the panel fits properly, lay it face-down on the workbench and clean the back. Be sure to apply AltroFix 75 Spray to the wall substrate where tape will contact the substrate.

Applying adhesive

Wear appropriate safety equipment before handling materials.

For two-part Altro W39 adhesive carefully mix parts A and B together using a large mixing drill and paddle for a minimum of 3 minutes, until an even color is acquired. Note: Adhesive must be mechanically mixed.

Apply the appropriate adhesive to the back of the sheet, using the recommended 3/16th square notched trowel. The adhesive should be applied approximately 1/2” from the edge of the sheet when joint strips are being used and 1” from the edge when butting seam and using 2” double side foam tape.

The working time of Altro W39 adhesive is approximately 40 minutes depending on the ambient temperature of the room.

The trowel must be held so that the adhesive is applied to an even finish, and the trowel notches are replicated to the same depth over the panel.

Butt seam panel installation

Before installing the panels, you must fit the 2” double sided foam tape to the substrate at the center point where the two panels will meet so the tape is 1” under each panel. Be sure to apply AltroFix 75 Spray to the wall substrate where tape will contact the substrate.

Once the panel is cut for height and penetrations check your work by dry fitting the panel. If the panel fits properly, lay it face-down on the workbench and clean the back. Apply the appropriate Altro adhesive keeping it away from the seam edge where the foam tape will contact the back of the panel.

Lift the panel to the wall and adhere to the required location using the datum line previously applied to the wall. Apply pressure to the whole panel face to ensure the adhesive has been transferred and will be fully bonded to the substrate.

After the panel is placed on the wall and fit to the datum line, carefully ease the edge of the panel off the wall and remove the protective paper from the double-sided tape and re-set panel (save the protective tape cover). Roll the panel to achieve a transfer of the adhesive to the substrate. When rolling the panel, start in the middle and work outward. Place the tape cover back on the exposed double-sided tape to protect it.

Prepare the next panel in the same way as described above (ensure that the seams of the previously installed panel are clean and free of adhesive) Fit the next panel as described, ensure datum lines align, the panel edges butt tightly together with the print matched across both panels. Once the panel has been rolled almost to the edge, remove the final part of the double-sided tape's protective cover. Press the panel firmly onto the foam tape and then complete the rolling of the panel.

2 part joint strip installation

- Apply 1" butyl tape at the top, middle, and bottom of panel to correspond with the AltroFix 75 Spray on the wall substrate.
- Once the panel is cut for height and any penetrations check your work by dry fitting the panel. If the panel fits properly, lay it face-down on the workbench and clean the back. Apply the appropriate Altro adhesive keeping it off the double-sided tape.
- Lift the panel to the wall and adhere to the required location using the datum line previously applied to the wall. Apply pressure to the whole panel face to ensure the adhesive has been transferred and will be fully bonded to the substrate.
- Once the panel is adhered to the wall, slide the back part of the two-part joint strip under the installed panel until the center bar presses against the edge of the fitted panel. It is essential to the success of the installation that this is carried out as the cover of the two-part trim has been printed so when fitted correctly to the center bar the continuity of the print is carried across the two printed panels on either side of the trim.
- Before cutting the trim to length, the finishing detail between the flooring and wall panels will need to be identified.
- When fitting the next panel, ensure the datum lines are aligned correctly and then position the sheet on top of the back section of the base plate and firmly against the center bar.
- Depending on where the first panels was positioned, if begun from the middle and worked outwards the end panels may require either scribing or measuring to fit once all panels are in position the cover trims can then be cut to length and fitted ensuring correct positioning and matching to the printed sheets.
- The front face joint strip covers should initially be positioned by hand pressure. They can then be fully located by tapping with a rubber mallet or hand roller.

1 part joint strip installation

- The process of the single part joint strip is much the same as the two-part trim except, during the preparation of the panel a small chamfer will need to be applied to the seam edges. This will enable the single-part joint strip to be fitted easily to the panel. The 1-part joint strip has a moisture resistant gasket seal on the inner edges which could be damaged if forced onto the panel.
- Apply 1" butyl tape at the top, middle, and bottom of panel to correspond with the AltroFix 75 Spray on the wall substrate.
- Once the panel is cut for height and any penetrations check your work by dry fitting the panel. If the panel fits properly, lay it face-down on the workbench and clean the back. Apply the appropriate Altro adhesive keeping it off the double-sided tape.
- Once the first panel is installed, the single-part joint strip is fitted onto the leading edge meeting the next sheet. If required, cut the trim height to match sheet height ensuring the print on the trim aligns with the print on the sheet, this may require the top and bottom of the trim being cut to suit. Be sure to roll the entire panel to ensure the panel is fully adhered to the substrate.
- Fit the single part trim by pushing onto the leading edge of the first sheet until all the middle spine of the trim rests against this edge.

- After the next sheet is prepared and adhesive applied, a bead of Altro sanitary sealant should be applied alongside the joint strip before installation of the next panel.
- Install the next sheet as close to the fitted single part trim as possible ensuring the datum line is lined up and press out the sheet.
- Gently tap the single part trim back so it slides over the edge of the second sheet. The single part trim is now fitted over both sheet edges and can be aligned correctly to match the print on both sheets by gently tapping into position until satisfied.
- By applying Altro sanitary sealant to the back edge of the joint strip, it prevents the strip being moved at a later stage and the sheet edge becoming visible and open.

Half lap seam installation

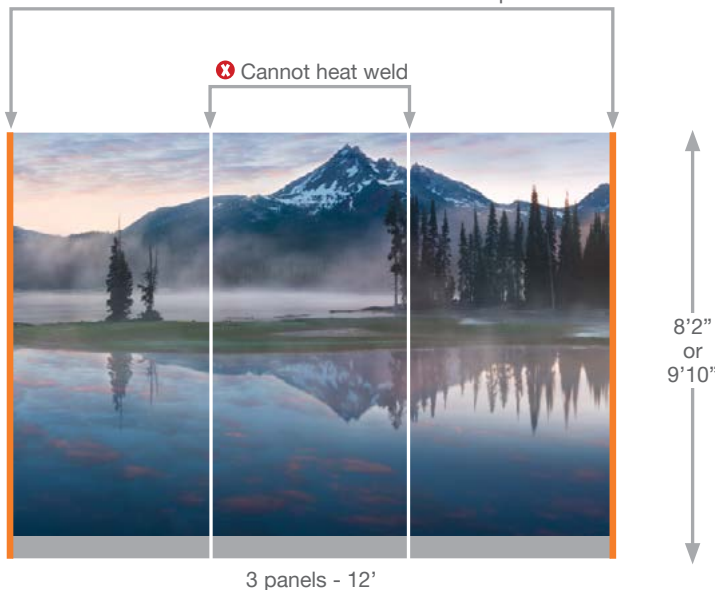
- The half lap seam is available both horizontally and vertically.
- Once the panel has been cut to the correct height if necessary or any required penetrations are made, perform a dry fit to verify proper alignment. If everything fits correctly, carefully place the panel face down on the workbench, clean the back, and apply the recommended Altro adhesive.
- Position the panel on the wall in its designated location. Press firmly across the entire surface to ensure proper adhesive transfer and a secure bond with the substrate.
- Next, apply a 1/16" (2mm) bead of Altro Mastic 100 along the half-lap seam, taking care to prevent any excess from squeezing out onto the panel surface.
- Install the next panels using the same method, whether they are stacked horizontally or positioned vertically. Always perform a dry fit first to ensure proper image alignment before securing the panels to the substrate.

Heat weld installation

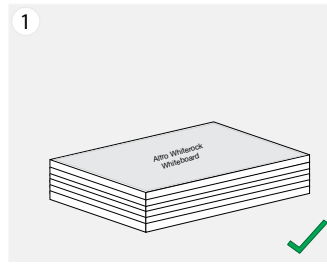
It is only recommended to heat weld the outer seams and not between the panels. see image below.

1. Once the panel is cut to the correct height if necessary or any required penetrations are made, dry fit to verify proper alignment.
2. Bevel the edge of the panel that is going to be heat welded as you would for a traditional Altro Whiteboard. Clean the back of the panel and apply the recommended Altro adhesive.
3. Apply AltroFix 75 Spray to the wall at the seam location where the foam tape will be applied. Place 2" double sided foam tape on the wall substrate where it will be 1" under each panel..
4. Position the panel on the wall in its designated location. Press firmly across the entire panel to ensure proper adhesive transfer to the substrate.
5. After the panel is placed on the wall carefully ease the edge of the panel off the wall and remove the protective paper from the double-sided foam tape and re-set panel (save the protective tape cover). Firmly press panel into the tape. Place the tape cover back on the exposed double-sided tape to protect it.
6. Clean both the seam area and the weld rod with an anti-static solution. Ensure that the heat welding equipment and in particular the heat-welding tip is completely clean and free of any debris or carbon buildup.
7. To determine proper temperature and speed for heat welding always test weld on a scrap piece of Altro Whiteboard before proceeding.
8. Allow the weld rod to cool down sufficiently before trimming. Apply soapy water to panel along weld to help lubricate the skiving tool. Once the rod has cooled down you can commence final trimming with your trimming tool. Take care not to scratch or damage the Altro Whiteboard surface while undertaking this final part of the operation. The use of a trim plate is optional. Try to accomplish this in one pass, as multiple passes tend to leave the weld jagged and increase the risk of scratching the panel.

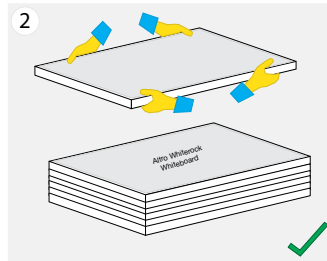
✔ Can heat weld to standard Altro Whiteboard panels



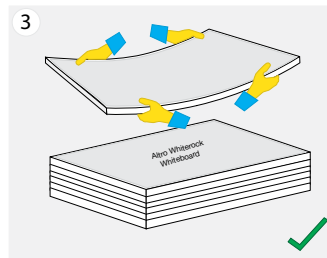
Handling and storing Altro Whiteboard panels



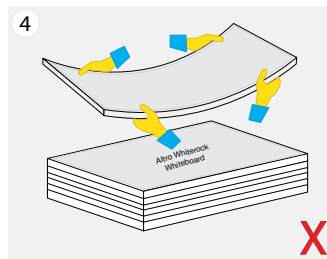
Altro Whiteboard panels need to be stored flat on a pallet and not on the floor or concrete subfloor.



Keep flat when handling.



A slight bow in the panels is OK.



A large bend/bow in the panel can damage the film.