

Altro PVCu wall sheet fitting guide

Altro Whiterock™ Imagination Wall

For detailed instructions on installing Altro PVCu wall sheets, please refer to the Altro PVCu wall system fitting guide and the Altro Whiterock Digiclad fitting guide.

Description

Altro Whiterock Imagination Wall combines a printed line drawing with a versatile dry wipe finish. The sheets are hard coated with an anti-reflective coating for added scratch resistance.

- Printed onto Altro Whiterock White
- Surface finish – Gloss
- Thickness: 2.5mm
- Sheet size: 910 (height) x 1220 mm (width)
- Weight: 3.6 kg per m²
- Maximum service temp: 60°C

Fixing

The sheets can be fixed directly to most dry substrates depending on its surface suitability, using either:

1. AltroFix W139 all over adhesive using the relevant trowel notch to match substrate AltroFix W157 all over adhesive (substrate surfaces to be of a high standard and porous) using the relevant trowel notch to match substrate. Using an all over adhesive provides a hygienic installation
2. Removable hook and loop system such as Velcro (non-hygienic installation)
3. Using a 1 part MS polymer adhesive applied in a grid pattern (non-hygienic installation)

Cutting

Altro Whiterock Imagination Wall is supplied in a pre-cut sized sheet. If the sheet has to be cut to fit a space, a plunge saw with a pressure guide rail is the best method. However a jigsaw fitted with a fine tooth metal cutting blade or fine toothed handsaw can also be used for more intricate sections to be cut. Care should be taken to ensure the print is protected at all stages of the fitting process.

Thermoforming Internal / external corners

The corners of Altro Whiterock Imagination Wall cannot be thermoformed, in these circumstances the internal corners can be scribed and butted into the corner and sealed with silicone sealant. The external corners can be fitted using an unprinted 20 mm x 20 mm or 30 mm x 30 mm PVC angle (A839) or a brushed stainless steel angle.

Surface preparation / setting out

The Altro PVCu wall sheet fitting guide has detailed instructions on surface preparation and setting out of the sheets and is available at www.altro.com

Installation - Permanent installation with full cover adhesive - hygienic

Please see Altro PVCu wall system and Altro Whiterock Digiclad fitting guides for full detailed instructions on permanent installation with full cover adhesive.

Jointing

There are four main jointing methods for Altro Whiterock Imagination Wall;

1. Trims - High impact colour co-ordinating printed extruded PVCu trims –, 2 part “H” and start and edge trims. All trims incorporate a watertight seal at the mouth of the joint
2. Butt jointing - A flush seamless joint where the two square edges of the Altro Whiterock Imagination Wall sheets are butted together – If more than 4 sheets are installed in a continuous design please call Altro technical services to discuss expansion detailing
3. Mastic Joint – it is recommended that contrasting colour is used due to the possibility of pen ink staining
4. Welded joint – it is recommended that a contrasting colour of weld rod is used due to the possibility of pen ink staining

1. Two part trim joint

Fitting the two part PVCu trim (A831)

- Once the sheet is in position, the back section of the two-part PVCu vertical joint strip should be fitted.
- This should be inserted behind the leading edge of the sheet until the central bar presses against the edge of the fitted sheet.
- Before cutting the trim to length, the finishing detail between the flooring and wall sheets will need to be identified. If a PVCu transition strip is to be used to create a joint between the sheet and the sheet vinyl floor finish, the back part of the vertical strip should be cut back (by 20 mm) to allow the horizontal transition strip to be fitted at the base of the sheet (at a later stage). To find the correct length of the vertical section required, use a small piece of transition strip (as a template) and fit this to the bottom of the sheet.
- Once the trim has been cut to length it is recommended, before sliding this back section behind the panel, a small bead of silicone is applied to the back of the trim to prevent movement once the installation is complete
- When fitting the next sheet, ensure the datum lines are aligned correctly and then position the sheet on top of the back section of the PVCu joint strip.
- A 2-3 mm gap either side of the central spine will allow the sheets adequate room to expand and contract underneath the front face of the two-part (snap-on) cover trim.

- Carry out this procedure throughout the installation and then finish by installing the front face of the two-part (snap-on) cover trim, cut to the appropriate length. Note: the front face cover trims can be installed as the work proceeds, or left until all sheets have been installed.
- 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 small hammer and wooden block.

Fitting the PVCu start and edge joint trim (A833)

- Altro A833 start and edge trim is a two-part (snap-on) PVCu trim, which is generally used to close any exposed edges (i.e. top or side edges) of the Altro PVCu sheet. This is usually fitted when the sheet is installed lower than the ceiling line, or when the sheet terminates along a wall before reaching a corner or abutment.
- Prior to fixing the start & edge trim to the exposed edge of the sheet, a bead of Altro sanitary sealant should be applied to the substrate (adjacent to the sheet). When the back section of the two-part PVCu start & edge trim is installed it beds into the sealant and maintains a tight hold to the substrate.

2. Butt joint

- Preparation for a Altro Whiterock Imagination Wall butt joint is very similar to the preparation for a welded joint using the Double sided foam tape A915 but without the need to leave a gap for welding. (please refer to Altro PVCu wall sheet fitting guide).
- The first sheet is installed the same way as a welded sheet taking care to protect the printed face.
- Once the first sheet is in position offer up the next sheet and check the leading edge is square and the print aligns correctly.
- Prepare the next sheet for installation and ensure datum lines align and the sheet edges butt tightly together
- Hold the second sheet in position whilst a knife is run down the non-leading sheet edge cutting through the A915 foam tape protective foil ensuring not to cut completely through the tape.
- Check that the sheet is still in the correct position and butted tightly against the first sheet, lift the non-leading edge, remove half of the protective foil from the tape, and check again for correct positioning. When satisfied, press non leading edge onto foam tape, press the sheet to the substrate but stay at least 250 mm away from the butt joint.
- Lift the butt joint edge and remove protective foil from the tape and gently press sheet onto foam tape.
- Fully press out sheet to substrate.

3. Mastic joint

- The panels should be installed with a 3-4 mm gap - Altro Flexijoint spacer bars are ideal to ensure a consistent gap.
- Before installing the sheets, white Foam Double Side Tape (A915) must be applied to the substrate at the centre point where the two panels meet. The double side tape is impregnated with a contact adhesive and all substrates must be primed with a compatible primer before fitting the tapes. The primer is only required where the 50mm wide tapes are to be fitted. Masking tape should be used on the front face of the panels to prevent overspill and the edges of the panels must be clean ready for the application of the sanitary sealant.
- Ensure sufficient sanitary sealant is applied into the joint so that it forms up against the double sided foam tape and sits slightly above the flush sheets surface.
- Once the sanitary sealant has been applied, spray the joint with a soapy solution to prevent excess sealant fouling the face of the panels, remove the surplus sealant using a flexible spatula to leave a neat, flush, sealed joint. The masking tape should be removed immediately after the excess sealant is tooled off.
- It is recommended that a contracting colour is used.

4. Welded Joint

A welded joint should only be considered if the installer is confident that they can achieve a professional result. If in any doubt contact Altro Technical Services. Please refer to the Altro PVCu wall sheet fitting guide for detailed instructions on welding Altro PVCu wall sheets.

Preparation

- Before installing the panels, you must fit the white Foam Double Side Tape (A915) to the substrate at the centre point where the two panels meet. The gap between the panels must be no less than 1.5 mm but no greater than 2 mm.
- The double side tape is impregnated with a contact adhesive and all substrates must be primed with a compatible primer before fitting the tapes. The primer is only required where the 50mm wide tapes are to be fitted.
- Ensure all panel edges (where joints are to be formed) are clean, smooth, true and level. Always inspect new panel edges and ensure edges are undamaged or scored.
- Apply a 1.5 mm to 2 mm chamfer to the front edge of each panel where the welded joint is to be made. This is essential to create a uniform welded joint.
- Check there is no debris left on the edges of the sheet. Any debris could burn when hot welding the joint and will leave a blemish which cannot be removed.

- When fitting the sheet, always ensure there is an adequate gap (2-3mm) between the sheet and any rigid abutments (ceiling, windows, doors, services etc.) to allow for expansion these isolation joints must be sealed with Altro sanitary sealant.
- Clean both the seam area and the weldrod prior to welding.
- Ensure the welding equipment is clean especially the nozzle which may contain debris and carbon build up. The use of a wire brush and pipe cleaners will maintain the nozzle.

Heat Welding

- The speed required to weld Altro Whiterock Imagination Wall may be different compared to a standard Altro Whiterock sheet due to the wipeable surface of the sheet. As a result it is essential that the correct welding speed is achieved on practice sections using off-cuts of the sheet prior to attempting an initial live weld. This will allow the installer to gauge the correct speed and heat of the welding gun to ensure acceptable weldrod adhesion and help eliminate any potential burning of the sheet – as a guide, a medium to fast pace is required. Each site will require new settings for the weld gun which depend on site electrical supply.
- Check for proper fusion of the weld by trying to roll the bead left to right with a finger after it has been welded. Pulling on the end of the weldrod will be a good indicator that the sheets have been successfully fused. The temperature of the weld gun can be regulated, and the settings depend on the speed at which the gun is pulled along the sheet. This is something each individual must practice to ascertain what speed best suits their method of working. Care must be taken not to scorch the sheets, as this will be extremely difficult to repair.

Trimming off excess weldrod

- When trimming the weldrod two passes are key to the process to ensure a flat weld. Choice of tools to trim the weld are installer lead, but care must be taken all chosen tools are free from rust and are smooth. Failure to follow these guidelines could result in surface defects alongside the joint. The first pass should be done while the weldrod is warm. Spray a soapy water solution or Altro anti-static solution to the sheet along the weld to help lubricate the trimming knife, blade and sledge, if using the Mozart trimming tool leave a final cut thickness of 0.5 - 0.7 mm. Once the rod has cooled down, final trimming can commence with a trimming knife and soapy water. Take extra care not to scratch or damage the Altro Whiterock Imagination Wall surface while undertaking this final part of the procedure.

Temporary / Removable hook and loop installation method - non-hygienic

Easy install method for 910mm x 1220mm panels

This installation method is intended for ease of removal and is not meant to be a permanent installation and is for single sheets. Please contact Altro technical services if you are planning on installing more than one sheet with this method to discuss jointing options.

- Ensure the substrate that the Altro Whiterock Imagination Wall is to be installed on is free of dust and the back of the sheet is clean.
- Prime the substrate using a PVA (Poly vinyl acetate) primer at a ratio of 10 parts water 1 part P.V.A.
- Using industrial strength hook and loop tape such as Velcro, apply the hook side on the substrate and the loop side on the Altro Whiterock Imagination Wall panel, covering the entire perimeter of the panel approx. 5 mm from the edges.
- After applying the hook and loop to both surfaces, lift the sheet and install to the required location ensuring the datum line on the sheet corresponds to the datum line on the wall.
- Place the two additional strips horizontally in the middle of the panel approximately 300 mm apart from each other.
- Similar measurements on the substrate should be followed to coincide with this grid pattern. Please refer to the hook and loop manufacturer instructions for further assistance if required.
- Use a small roller to roll the tape on to both the substrate and the back of the panel, ensuring proper adhesion for a secure bond.
- Once the hook and loop-strips are rolled and adhered to the wall and panel, you may now place the panel on the desired location.
- Carefully press the panel on the wall to make the connection between the hook and loop strips.

Installation method using MS polymer adhesive - non-hygienic

The wall sheets can be fixed directly to most sound and dry substrates with an Altro recommended MS polymer adhesive.

The adhesive is available in a ready to use 600ml tube and one tube should be used per sheet.

Wear appropriate PPE as detailed in the SDS (Safety Data Sheet).

- Cut the nozzle on the mastic tube to give a 5mm bead of adhesive.
- Apply adhesive to the back of the sheet in a grid pattern at 300mm intervals ensuring that the edges of the sheet have a bead of adhesive approximately 20mm from each edge.
- The working time for the MS polymer adhesive is usually approximately 30 minutes depending on the temperature of the room, but check the technical data sheet for the product used for more information.
- After applying the adhesive, lift the sheet and install to the required location ensuring the datum line on the sheet corresponds to the datum line on the wall, support may be required to hold sheet in place while adhesive is drying.
- Once fitted to the substrate, apply pressure to the whole of the sheet face to ensure the adhesive has been transferred and will be well bonded to the substrate (this is normally done with a hand roller or block of timber covered with a material to prevent the surface being damaged).
- Failure to ensure a good transfer of adhesive to the substrate could result in the sheet de-bonding. Ensure any adhesive residue is thoroughly cleaned of the surface of the sheet or joint trim (and other adjacent surfaces). This must be done immediately, before the adhesive sets.
- Please refer to Altro detailing diagram W12 for more details.

For further information or technical advice

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