

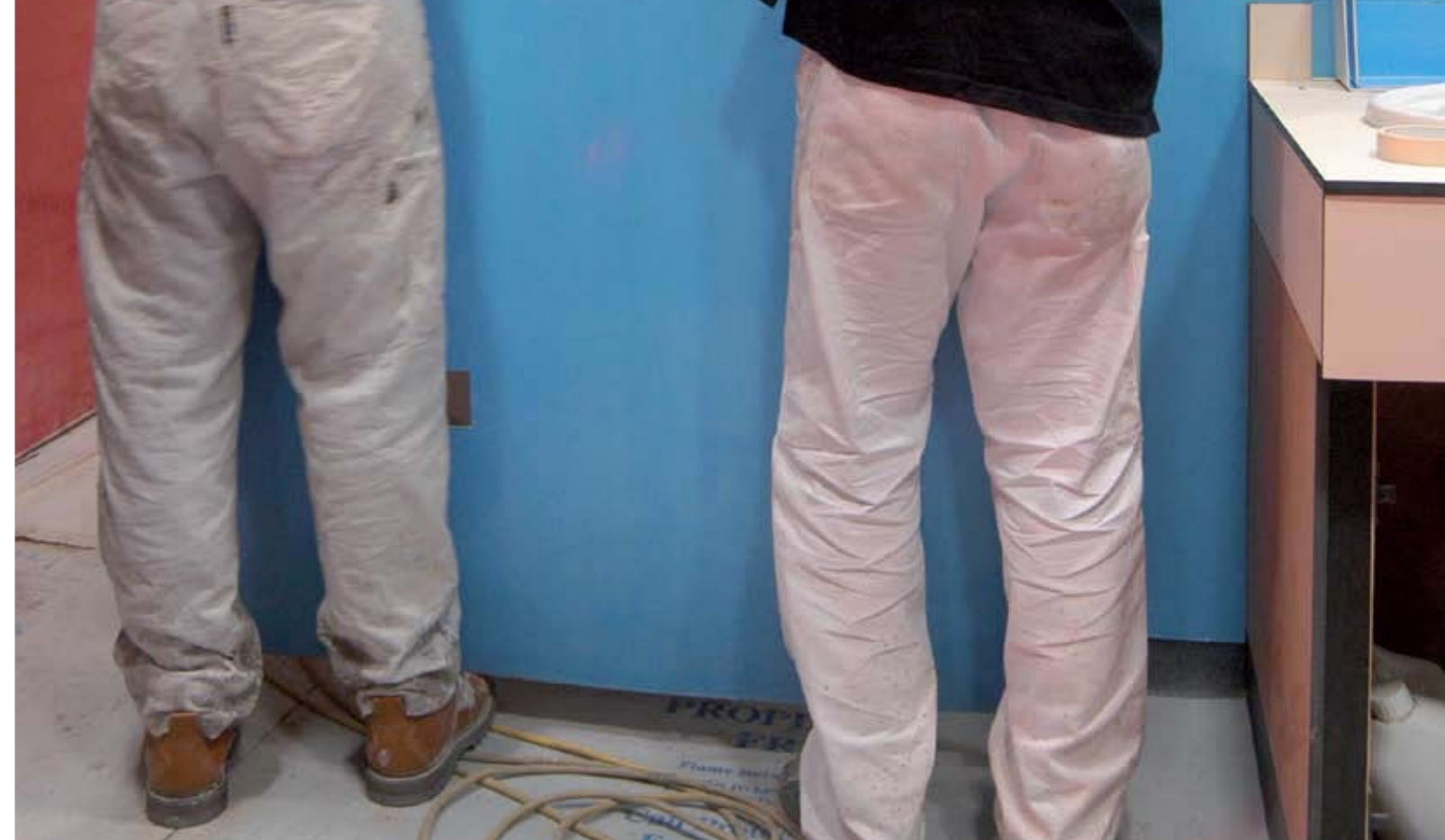


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Fitting Guide for Altro Whiterock PVCu Panels



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Altro Walls Whiterock Fitting Guide

This fitting guide, whilst compiled to the best of our knowledge is for guidance only, and Altro Walls cannot be held responsible for any faults which may occur. If in any doubt, contact the Walls technical services department to answer any queries you may have. Tel: +44 (0)1462 480480.

Altro Whiterock semi rigid extruded PVCu wall cladding can be used in hygienic environments and areas subject to wet usage. The cladding system has excellent adhesion properties to all sound substrates used for internal wall construction. It is suitable for new and refurbishment building projects. A range of panels is available in White, Pastel, Decorative and High Gloss finish.

The cladding system incorporates colour coordinated two-part PVCu internal / external corner profiles (snap-on), two-part PVCu joint strips (snap-on), two-part PVCu transition joint strip (floor to wall junction) and a two-part PVCu start & edge trim (snap-on).

AltroFix W139 two-part urethane 'all over' adhesive is supplied to fix all types of panel.

Altro silicone sealant is available in co-ordinating colours for all cladding ranges.

DESCRIPTION

Panels are 2.5mm thick and are available in 2500mm or 3000mm height x 1220mm width.

The panels are supplied with a protective film on the face which can be left in place until the area is ready for use. This also helps protect the new surface from dust while other trades are working in the area.

Altro Whiterock PVCu panels have a maximum service temperature of 60°C.

Although the panels can be applied in most areas, they should never be installed near to a direct heat source (cookers, oven ranges, wall mounted griddles etc) where naked flame or severe heat would cause distortion or damage to the surface.

For these situations, Altro Walls recommends using stainless steel panels.

ADHESIVE FIXING

The panels can be fixed directly to most sound and dry substrates with AltroFix W139 two-part urethane adhesive.

The adhesive is available in two tub sizes - 6.5kg and 8kg.

The adhesive is supplied within the fixing kits together with joint strip double sided tape and silicone sealant. 1 kit/1 sheet.

- Ref: AK25 for 2500mm long sheet
- Ref: AK30 for 3000mm long sheet

2 Part Adhesive

Part A is a viscous cream coloured paste supplied in a plastic tub. Part B is a catalyst (hardener) supplied in a foil bag (separated within the tub).

Pour the liquid contents of the foil bag (Part B) into the plastic container holding Part A and mix thoroughly for approximately 2-3 minutes until a uniform consistency is obtained throughout.

An electric drill with mixing paddle attachment should be used to ensure complete mixing.

Once mixed, the adhesive should be applied to the (pre-cleaned) back of the Whiterock panel with a 5mm x 5mm square notched trowel.

SUITABLE SUBSTRATES

- Good quality fair-faced brick or blockwork with well aligned joints all bagged up flush and all cement spots removed. They must be straight to within 3mm over 2 metres and brick/blocks flush with those adjacent.
- Sand and cement rendering, 1:3 mix with a steel trowelled finish.
- 12.5mm thick plasterboard.
- Minimum 9mm W.B.P. resin bonded plywood.
- Minimum 9mm MDF dense wood based panels.
- Ceramic tiles, which must be securely bonded to the substrate, thoroughly cleaned.
- Most sound painted surfaces (an adhesive test is advisable to ascertain suitability).
- New pink finishing plasters. These surfaces are generally dusty. They should be brushed and thoroughly sealed with diluted PVA primer (Unibond or similar).

Please ensure you follow the installation guidelines carefully to ensure best results.

SURFACE PREPARATION

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

- All substrates to be dry to 16% WME (wood moisture equivalent) on Protimeter 'Surveymaster' equipment.
- All loose flaking paint and dust to be removed.
- Friable surfaces to be removed or made sound using proprietary surface treatment as advised by Altro Walls.
- All surfaces to be free from grease. Ceramic tiles must be thoroughly cleaned, degreased, rinsed and left to dry.
- Loose tiles to be removed and the area made good using Ardurapide 45 rapid repair mortar, sand and cement with Unibond mix (if drying time permits), Hardwall gypsum render coat or a comparable thickness plywood infill.
- Depressions in the substrate should be filled with Ardurapide 45 rapid repair mortar, sand and cement with Unibond mix or Hardwall gypsum render coat (if drying time permits).
- All electrical switches, power points etc should be in a first fix state where possible. All electrical equipment should only be moved or altered by a qualified electrician.
- If possible, plumbing and pipework should be removed to be at first fix state and 'tails' left protruding from the substrate. Whiterock panels can then be drilled and slid over the pipe 'tails'. All holes should be drilled 3mm oversize to allow for expansion. Plumbing should always be carried out by a qualified plumber.
- Hot pipes and steam pipes should be insulated and a 3-5mm expansion gap should be created when installing panels around these pipes.
- All pipes, screw fixings, bolts etc. fixed through the Whiterock panel should have minimum 3mm expansion gaps and be sealed using Altro silicone sealant.

INSTALLATION TEMPERATURES

Altro Walls recommends the PVCu wall cladding panels are installed at approximately the same ambient 'service temperature' at which the area will be used when commissioned.

A minimum ambient temperature of 14°C/57°F is recommended for all installation areas.

AltroFix adhesive must never be used below +5°C.

Panels should be stored flat and be pre-conditioned for up to 24 hours to attain the ambient room temperature prior to the installation.

The panels must be stored on a level flat surface off the ground (risk of condensation on the panels if stored on damp surfaces).

Storage on un-even surfaces could cause the panels to distort prior to installation.

Please ensure you follow the installation guidelines carefully to ensure best results.

TOOLS AND EQUIPMENT

In general, the main tools required are similar to carpentry hand tools. Below is a list of tools that you may find an advantage to have for the installation.

- 1 metre & 2 metre spirit levels
- tenon saw
- stanley knife
- square
- chalk line
- laser/water level
- adjustable block plane
- 5m tape measure
- hammer
- carpenters bevel
- cold chisel
- rubber mallet
- carpenters 19/25mm wood chisels
- screwdrivers
- files (round & square)
- hole cutters
- hacksaw
- sharpening stone
- 4" scrapers
- metal snips
- 50mm paint brush
- good quality mastic gun
- mixing paddle
- 5mm x 5mm square notch steel trowel
- biro pens and pencils
- water based markers
- hand roller
- 3000mm rigid straight edge
- electric Jigsaw (with 'fine tooth' cutting blades)
- 750 watt electric drill (for mixing adhesive)
- if required (on site) - 110 transformer (including 110v leads)

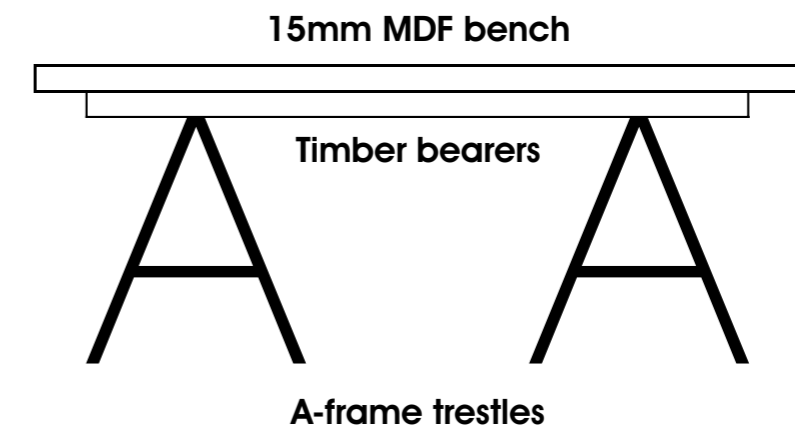
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Safety equipment:

- barrier cream
- goggles/safety glasses
- protective gloves
- face mask (nose/mouth protection)
- hard hat
- safety boots
- hi-viz safety vest

Other essential equipment:

You will also need a 2.5 x 1.22m workbench made from 15mm MDF board (or similar), with support bearers to prevent the MDF from bowing in the middle. The bench provides an excellent work surface for the Whiterock panels which are 1.220m x 2.500m/3.000m



SAFETY INFORMATION

Apart from the normal health and safety rules employed within the construction industry, the following points should be noted:-

- Safety information displayed on the tubs and containers supplied by Altro Walls must be strictly adhered to.
- Safety eye wear must be worn during cutting of materials, mixing adhesive, cleaning and preparation of site, and where necessary to adhere to site regulations.
- Use face masks
- Display prominent safety signs when using hazardous materials, and to warn of a working area.
- Ensure good ventilation within the work area.
- Remove and dispose of all waste sensibly and carefully as per site instructions. Contact Altro Walls on 01502 561 364 for all COSHH (control of substances hazardous to health) data sheets.
- Apply barrier creams, and wear protective gloves when mixing and applying AltroFix adhesives.
- Keep the working area clean and tidy.

Please ensure you follow the installation guidelines carefully to ensure best results.

WORKSTATION

Set up a 'workstation' in close proximity to the area to be clad. A minimum area of 4m x 3m will be required to set up your work bench area.

Adjacent to the workstation, set up a 'glue-station', where all the mixing of adhesive takes place. The floor area in this location needs to be protected with cardboard (or similar) to prevent splashes of adhesive getting onto the floor.

If an existing or new floor has been laid prior to the cladding, it is essential to protect the floor with polythene sheeting and/or cardboard around the work bench and the 'glue- station' where adhesive may get spilt.

The 'glue-station' is also where the trowels and mixing paddles are cleaned regularly to prevent a build up of excessive adhesive on the tools.

Please note: If the adhesives get onto the floor or other surfaces and are allowed to set, it can be difficult, if not impossible, to remove. Therefore any splashes or spillages should be wiped up immediately.

SETTING OUT

- Firstly, check out the room which is to be clad, paying particular attention to the corners, window reveals, and door entrances. These need to be inspected to ensure they are straight, and free of any building waste which could prevent the panels laying flat to the substrate after the adhesive has been applied and the panel is installed.
- The wall surface must be clean prior to installation (if necessary, contact Altro Walls for specific recommendations on cleaning and preparation).
- Once preparation has been completed a datum line must be installed. The datum line is used for the calculation of measurements to ceiling height, sockets and pipes etc: and to ensure the panels are 'plum' as the installation proceeds.
- The datum line should be installed at approximately 'eye level' on the wall and should be done with a laser or water level for accuracy.
- The datum line height (from subfloor) should be calculated to allow for the appropriate skirting height where the bottom of the PVCu panel meets the specific floor finish (sheet pvc flooring, quarry tiles, pvc sit-on skirting etc.) **Note:** Quarry tile coving must always be installed before the wall cladding is fitted.
- A series of 'check measurements' should be taken around the room from datum to subfloor to ascertain the 'average' height of the datum line.
- The datum height (minus the appropriate floor skirting height) will eventually be transferred on to the face of the PVCu wall panel. This will enable all subsequent measurements to be processed from the datum line on the panel.
- Once all measurements have been taken from the wall, they can then be transferred on to the panel. When the panel is eventually fitted to the wall, the datum line on the panel must line up with the datum line on the wall.
- After installing the datum line and calculating the average height, you must then plan the 'layout' of the PVCu panels. This ensures the best layout of the panels and minimises the number of joints used in the system.

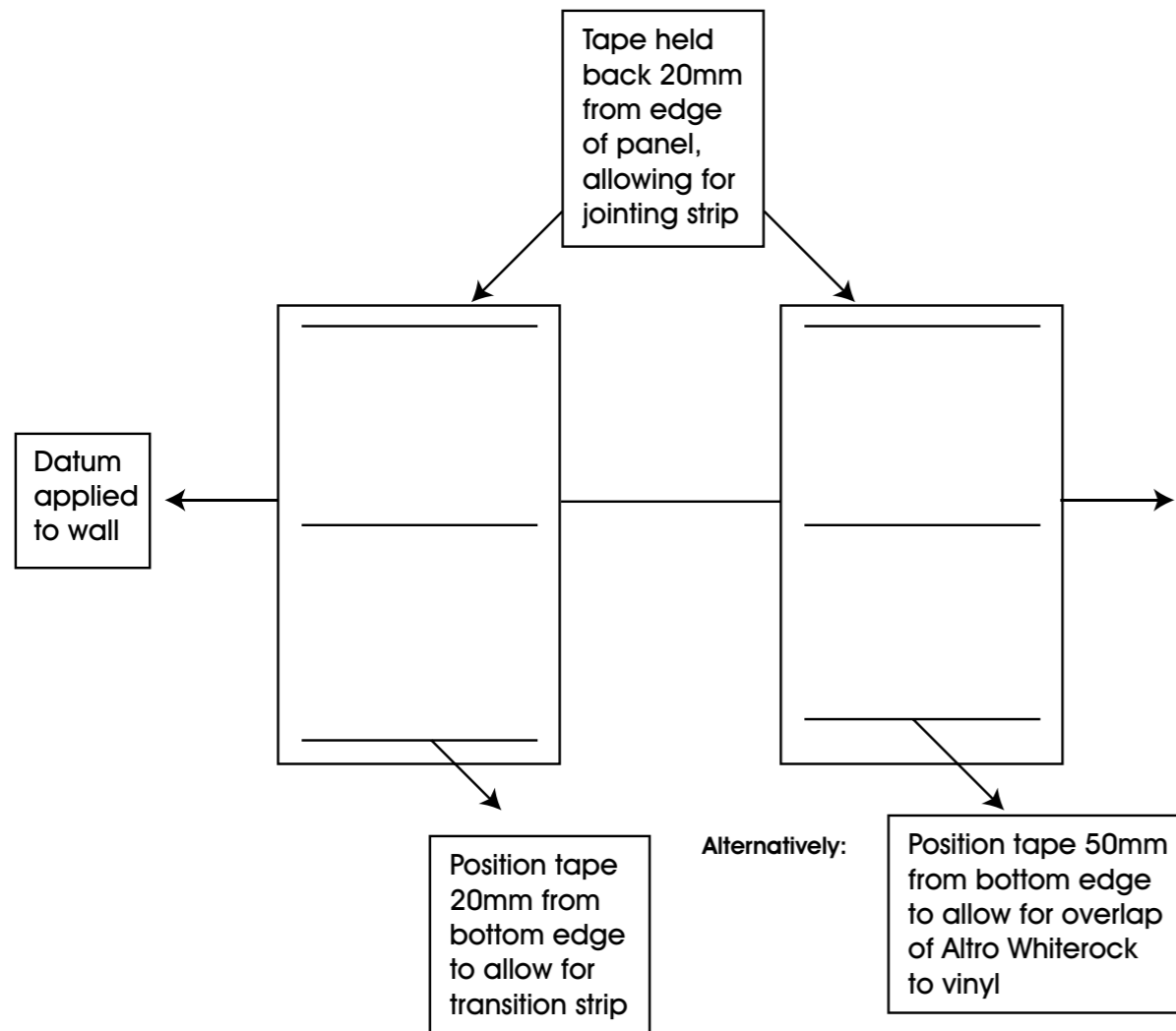
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ALTRO DOUBLE SIDED TAPE PRIMER APPLICATION (REF: W165)

- Prior to the installation of Whiterock panels, Altro W165 'tape primer' should be applied in three locations to the substrate with a 50mm paint brush. The primer 'lines' should correspond to the double sided tapes which will subsequently be fitted on the reverse side of the panel - at the top, the middle (normally just below datum height) and at the bottom of the panel. The double sided tapes hold the panel firmly to the substrate whilst the AltroFix W139 adhesive cures. Allow the 'tape primer' to dry to a tacky finish, (approximately 10 minutes). **Note:** Tape primer remains permanently tacky and never dries out. Only apply primer to the areas where tape is to contact wall surface.
- Before priming, the type of floor finish must be taken into account. With a sheet vinyl floor finish incorporating a self-coved skirting, the 'tape primer' (and subsequent double sided tape) must be applied high enough (i.e. min 20mm) to allow for a PVCu 'transition strip' to be fitted at the bottom of the panel. In the case of the Whiterock panel overlapping a sheet vinyl floor skirting (such as shower areas) where the vinyl has been installed first, a minimum height of 50mm from the bottom of the panel is required. See diagram showing the double sided tape layout on the back of the panel.
- When using two-part (snap-on) internal / external corner profiles, prime the wall corners with Altro W165 'tape primer' sufficiently enough to cover the area that the corners are to be installed. This should be done at the same time as the priming out for the double sided tape, allowing primer to dry to provide a tacky surface.
- When the walls are ready for application, double sided tape should be applied to the back of the PVCu corners in four strips of approximately 150mm long down the corner length. Remove the protective cover from the tape and apply the corner to the substrate.
- If a PVCu 'transition strip' is to be fitted (at a later stage) to the bottom of the Whiterock panel (where wall panels meet the sheet vinyl floor skirting), the corner profile 'back section' must be fitted 20mm shorter than the overall length.

Please ensure you follow the installation guidelines carefully to ensure best results.

ALTRO DOUBLE SIDED TAPE POSITIONING (REF: A815)



Please ensure you follow the installation guidelines carefully to ensure best results.

INSTALLATION PROCEDURE

Once all preparation has been carried out, walls are cleaned and free from dust, any possible contamination from grease (in kitchen and shower areas) has been removed, the datum line and 'tape primer' (Altro W165) have been applied, you are now ready to install the Whiterock panels.

- Place panel on the workbench and inspect for any damage. Carefully, on the front face (with the protective film), mark your datum with a biro pen, taking care not to press too hard, thus damaging the surface of the Whiterock panel.
- Take measurements from the wall, and then transfer these to the panel. Cut the panel using your jigsaw (or hand saw) with a fine tooth blade, making sure the panel is well supported to reduce any risk of stress in the material when being cut.
- After the final cutting, plane the edges with your adjustable block plane to remove burrs and to leave a clean smooth finish.
- Once cut and planed, peel back and remove the protective film approximately 50mm from the edge.
- Offer the panel to the substrate to check your work (dry fitting), ensuring you have a 2-3mm expansion joint at all abutments and pipe work.
- When the panel has finally been made to suit the required wall finish detail, lay this face-down on the workbench and clean the back of the panel with Altro cleaner / thinner (Ref: A808).
- Apply double sided tapes at the top, middle and bottom of the panel - to correspond with the Altro W165 primer (DO NOT remove the tapes' protective paper at this time).

APPLYING ALTROFIX W139 ADHESIVE (REF: A814)

- Wear appropriate safety equipment before handling materials.
- Carefully mix parts A and B together using a large mixing drill and paddle for a minimum of 3 minutes, until an even colour is acquired. **Note:** Adhesive must be mechanically mixed.
- Apply the adhesive to the back of the panel, using the recommended 5mm x 5mm notched trowel. The adhesive should be applied approximately 20mm from the edge of the panel (where joint strips are to be fitted), and right up to the double sided tapes. The working time of the 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.

Please ensure you follow the installation guidelines carefully to ensure best results.

FITTING THE WHITEROCK PANEL (REF: W103/104, W136/137, W140/141, W160/161)

- After applying the adhesive, carefully remove the double sided tape 'protective film' and place into a rubbish container. Lift the panel and install to the required location, ensuring the datum line on the panel corresponds to the datum line on the wall.
- Once fitted to the substrate, apply pressure to the whole of the panel face to ensure the adhesive has been transferred and will be fully bonded to the substrate (this is normally done with a hand roller, rubber mallet 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 panel debonding.
- Curing time of the adhesive is approximately 4-6 hours depending on the ambient temperature.
- Ensure any adhesive residue is thoroughly cleaned off the surface of the panel or joint trims (and other adjacent surfaces) with Altro cleaner /thinner (A808) and paper towel. This must be done immediately, before the adhesive sets.
- Alternatively, cleaning up adhesive residue can be undertaken with Altro Desolvit Wipes (A817).

FITTING PVCU JOINT TRIMS (REF: A831)

- Once the panel is in position, the 'back' section of the two-part PVCu vertical joint strip should be fitted. This should be slid behind the leading edge of the panel until it is approximately 3mm from the central spine. Before sliding this section behind the panel apply a small bead of silicone to the back of the trim.
- If a PVCu 'transition strip' is to be used to create a joint between the panel and the sheet vinyl floor finish, the back part of the vertical strip should be cut back (by 20mm) to allow the horizontal transition strip to be fitted at the base of the panel (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 panel.
- When fitting the next panel, ensure the datum lines are aligned correctly and then position the panel on top of the back section of the PVCu joint strip, approximately 3mm from the central spine.
- A 2-3 mm gap either side of the central spine will allow the panels 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 panels 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 TWO-PART INTERNAL / EXTERNAL CORNERS (REF: F837 / F836)

Internal and external two-part corner sections are manufactured in coordinating colours to match the range of Whiterock cladding systems. When ordering colour coordinated corners, remember to include the 'part number' with the specific 'colour reference number' on your order. F837 / F836 only refer to 'White' corner sections. For all other colours, add a suffix to the specific part number with the correct 'colour reference number'.

Example: F837/25/41 – This is an Internal corner section, 2.5m length, in colour Linen.

Note: For Altro Whiterock 'Illusions' panels, the two-part corners are only available in coordinated (background) colours. They do not have the decorative foil on the cover face.

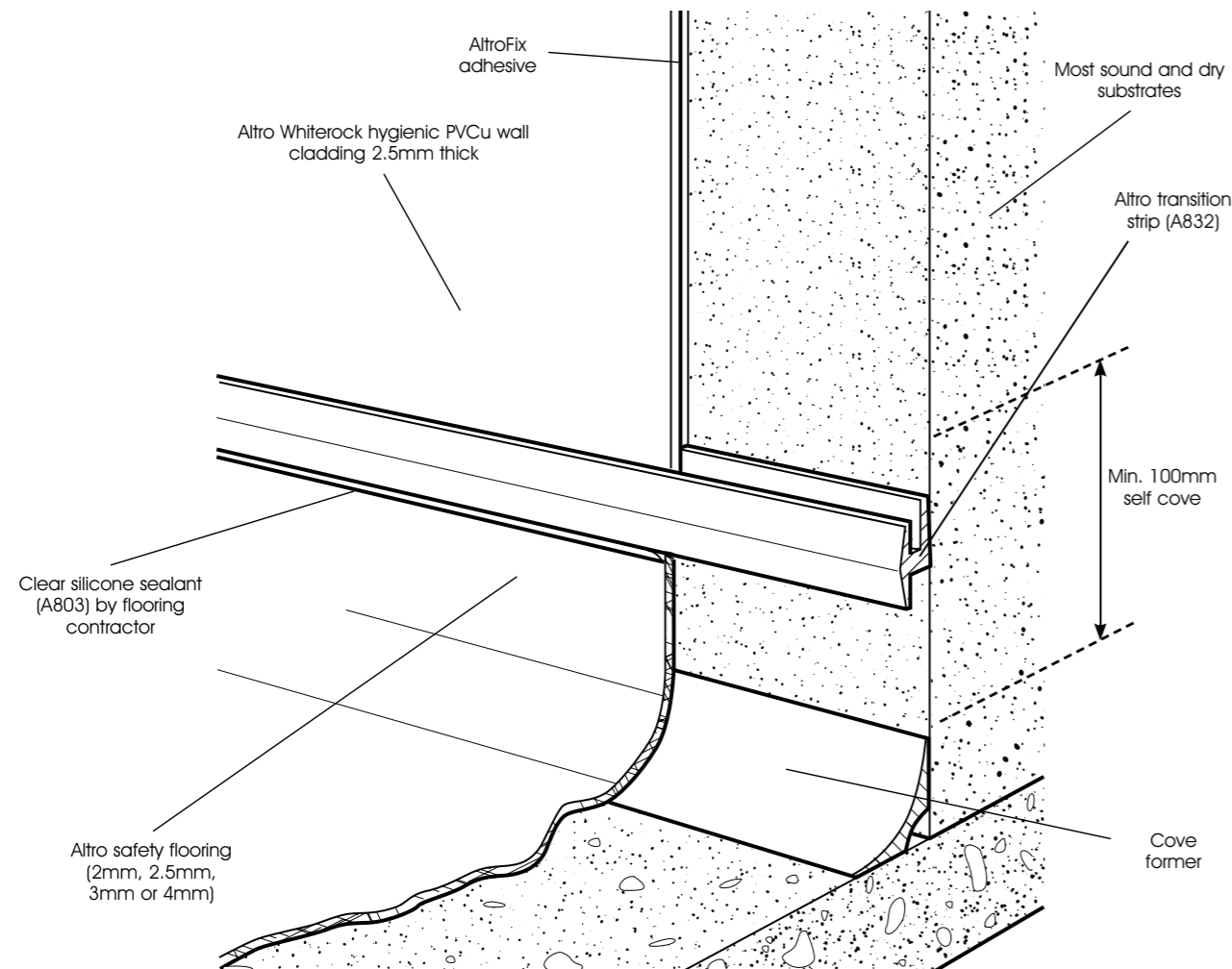
Special 'pre-formed' corner sections can be ordered with the Illusion panels if required. These are available in 150mm x 150mm, or 300mm x 300mm sections. They are manufactured from the Illusion panel and completely match the cladding panels.

- Preparation - prime the wall corners with the Altro W165 'tape' primer sufficiently enough to cover the area that the corners are to be installed. This should be done at the same time as the priming out for the double sided tape, allow primer to dry to provide a tacky surface.
- When the walls are ready for application, double sided tape should be applied to the back of the PVCu corners in four strips of approximately 150mm long down the corner length. Remove the protective cover from the tape and apply the corner to the substrate.
- If a PVCu 'transition strip' is to be fitted (at a later stage) to the bottom of the Whiterock panel (where wall panels meet the sheet vinyl floor skirting), the corner profile 'back section' must be fitted 20mm shorter than the overall length.
- Prior to the Whiterock panel being installed, a bead of Altro silicone sealant should be applied to both sides of the corner profile (on the inner faces). This will prevent the panel from having a void where the adhesive stops short of the panel edge.
- When fitting the Whiterock panel on to the corner profile 'back section', ensure the panels are positioned approximately 5mm short of the central spine (to allow for expansion and contraction).
- After the panels have been fitted, the front covers of the two-part (snap-on) corner profiles can be installed.
- The front covers should initially be positioned by hand pressure. They can then be fully located by tapping with a rubber mallet. Use a small clean, smooth section of softwood timber and place over the cover before tapping with the rubber mallet.

FITTING THE PVCU TRANSITION JOINT STRIP (REF: A832)

- The PVCu transition strip is fitted at the bottom of the Whiterock panel to provide a suitable detail for the 'panel to sheet vinyl floor' skirting detail. As described previously, the vertical joint strips must be cut 20mm shorter than the full panel length to allow the PVCu transition strip to fit properly.
- Prior to fixing the transition strip to the base of the panel, a bead of Altro silicone sealant should be applied to the substrate (just below the panel). When the 'back' section of the two-part PVCu transition strip is installed it beds into the sealant and maintains a tight hold during installation of the floor.

Altro Whiterock to safety floor coved skirting detail



- Carry out this procedure throughout the area and then finish by installing the front cover section of the two-part (snap-on) joint strip.
- When forming the front cover around internal and external corners, the back of the trim should be carefully undercut (along the spine) to allow the trim to bend around the angles.
- The front 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, with a block of wood.
- The front transition strip joint covers must be 'run' continuously around the perimeter of the room, including around internal and external angles. The cover trim should meet up accurately with the front covers of the vertical joint strips and the internal / external corner profiles. DO NOT mitre or butt transition strip to corners.

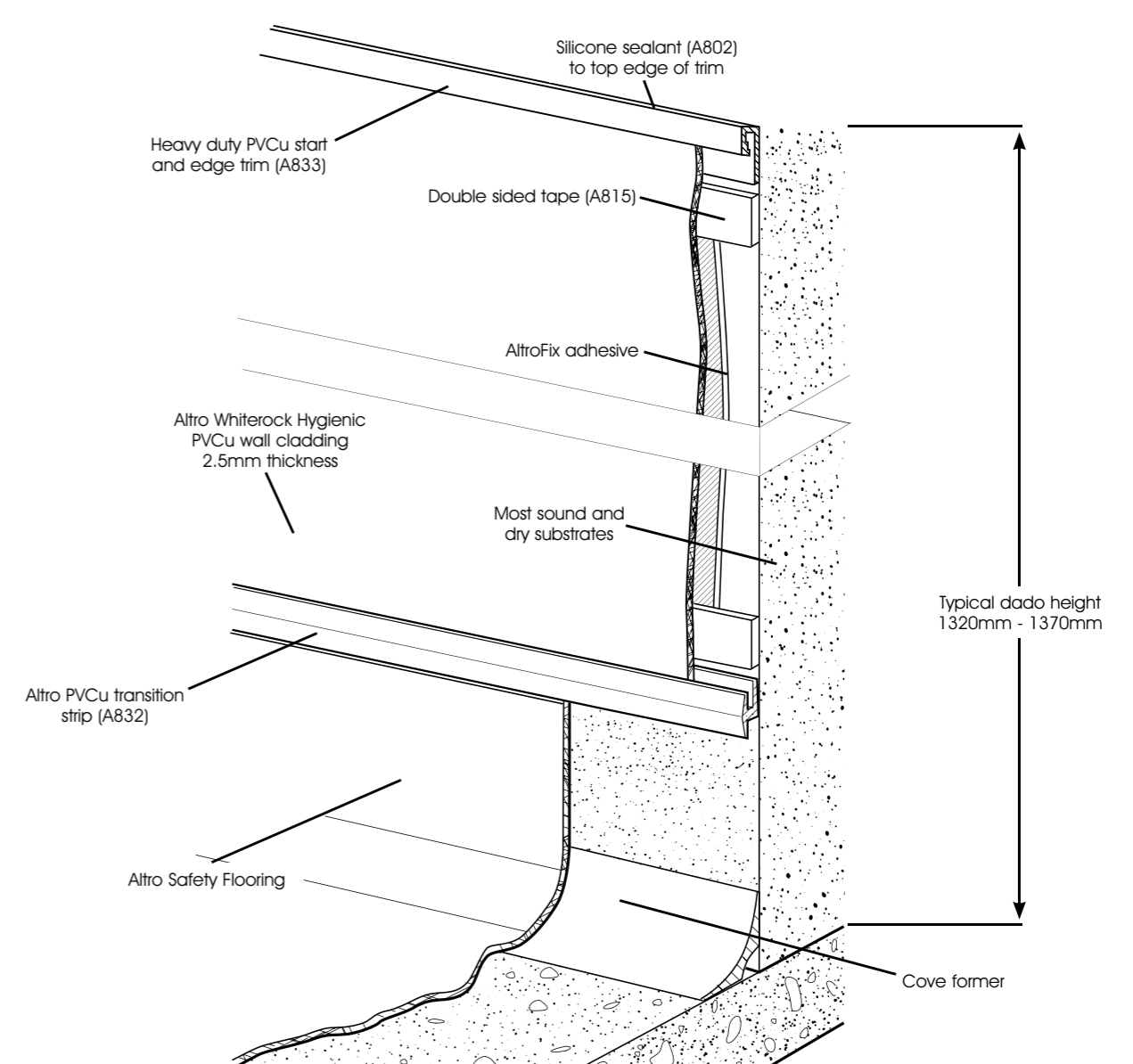
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FITTING THE PVCU START & EDGE JOINT STRIP (REF: A833)

Altro A833 is a two-part (snap-on) PVCu start and edge trim, which is generally used to close any exposed edges (i.e. top or side edges) of the Whiterock panel. This is usually fitted when the panel is installed lower than the ceiling line, or when the panel terminates along a wall before reaching a corner or abutment.

- Prior to fixing the start & edge trim to the exposed edge of the panel, a bead of Altro silicone sealant should be applied to the substrate (adjacent to the panel). 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.

Start and edge and cut tile transition detail



- Continue this procedure as necessary throughout the area and then finish by installing the front cover section of the two-part (snap-on) joint strip.
- The front cover strip should initially be positioned by hand pressure, and then be fully located by tapping with a rubber mallet or small hammer and block of wood.

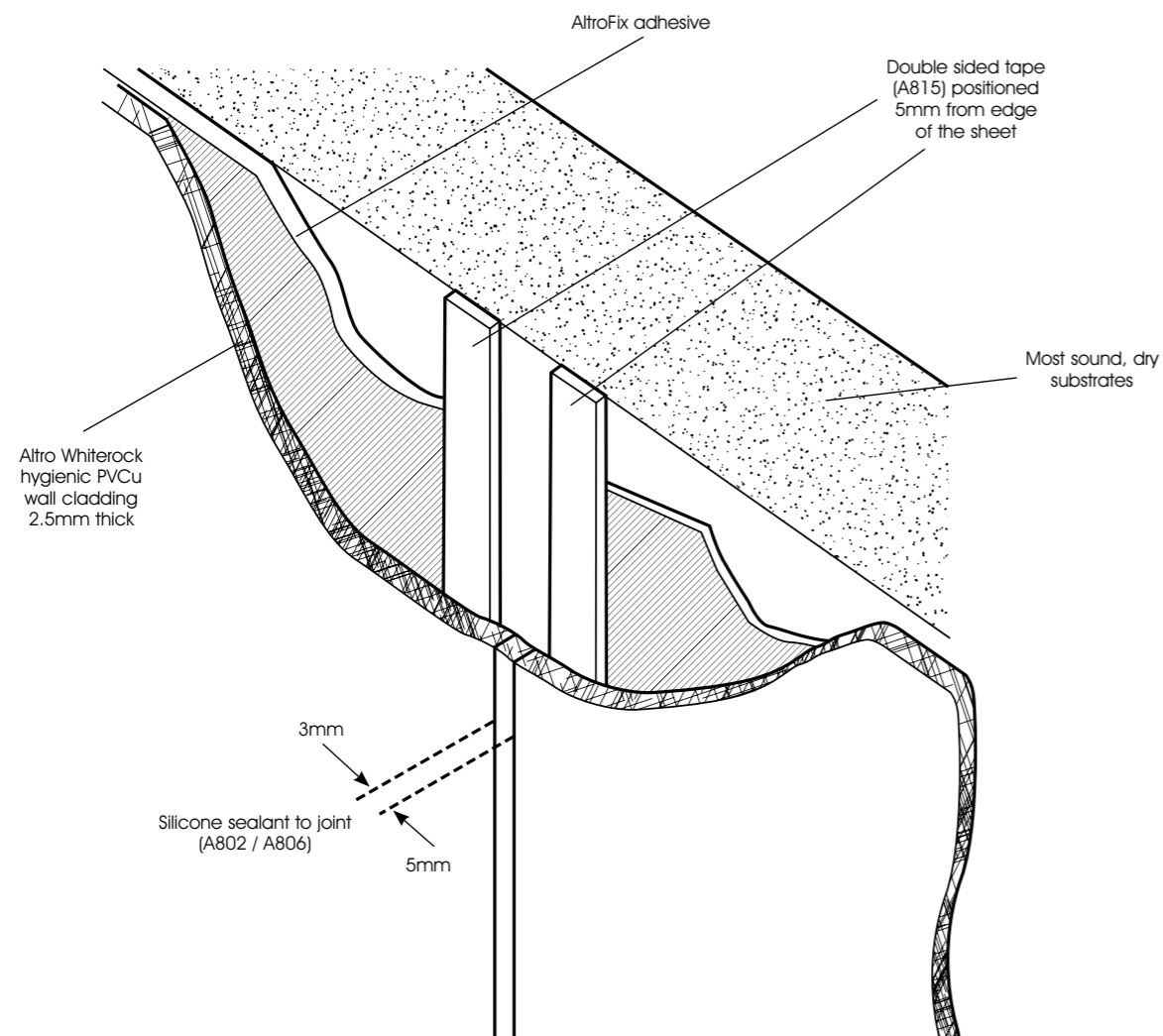
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OTHER JOINT TREATMENT DETAIL

If specified, or specifically recommended by the client, Altro Whiterock panels can be installed with a silicone joint detail.

- The panels should be installed with a 3-4 mm gap.
- Altro double sided tapes must be fitted approximately 3mm in from the vertical edge of each panel to ensure the panels meet accurately at the joint.
- Altro Walls recommends using masking tape on the front face of the panels to prevent overspill.
- The edges of the panels must be cleaned and primed with Altro ALU Cleaner (A810) prior to siliconing.
- Ensure sufficient silicone is pumped into the joint so that it forms up against the double side tapes on the reverse of the panel.
- Once completed, tool off the surplus to leave a neat, flush, sealed joint (remove masking tape immediately sealant is taken off).

Silicone seal joint detail



Please ensure you follow the installation guidelines carefully to ensure best results.

FITTING AND SEALING UP TO ABUTMENTS

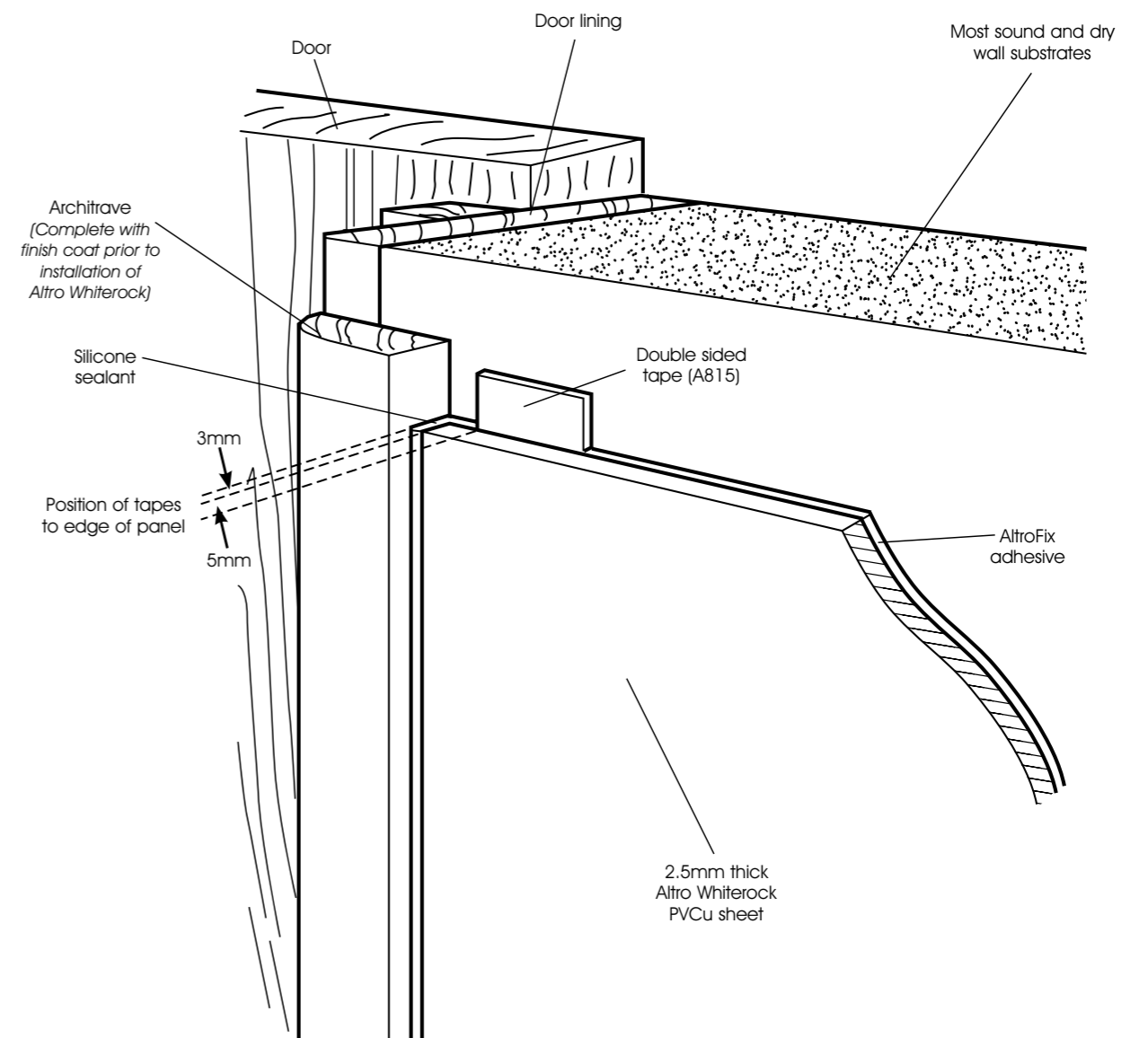
Altro Whiterock panels should be fitted to within 3mm of rigid abutments such as window frames, door frames, architraves, ceilings, quarry tile skirtings etc. ensuring a 2-3mm gap at these points.

This will allow for expansion and contraction to take place.

Prior to sealing the joint, clean and prime the panel and adjacent surfaces with Altro ALU Cleaner (A810).

All 'isolation' joints must be sealed with colour coordinated Altro silicone sealant Ref: A802, A803 or A805.

Detail Altro Whiterock to abutments eg. architrave



Please ensure you follow the installation guidelines carefully to ensure best results.

COMPLETION

Once all panels and joint strips are installed and silicone has been completed, remove the protective film and clean all surfaces down with Altro antistatic solution (A809). This is required as the panel may have static build up and any dust in the atmosphere will adhere to the surface of the panel.

CLEANING

Regular cleaning using a soft cloth and suitably diluted mild detergent is all that is normally required. For heavy grease contamination use Altro 44 alkaline cleaner (or similar). Stubborn marks can be removed with Altro cleaner (ref: A859) cream, or use a non-abrasive domestic type cream bath cleaner.

When cleaning the Whiterock surface, we recommend the temperature of water does not exceed 60° Centigrade.

If cleaning with hot water lance, temperatures must be regulated to a maximum of 60° Centigrade and not to be localised.

Do not use cleaning materials of an abrasive nature.

Cleaning cards are available on request.

CONTACT

Altro Walls technical services department for any query regarding materials, installation or cleaning and maintenance instructions:

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e-mail: info@altro.com

Visit the Altro website at www.altro.com for technical data sheets and technical drawings in pdf format for downloading.

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