



# AM-GUARD WALL PROTECTION INSTALLATION GUIDE

FEBRUARY 2024

# AM-GUARD INSTALLATION GUIDE

The advice given is for guidance only and AM-Clad Ltd cannot be held responsible for any faults arising from incorrect interpretation or application of the guidance set out in this document.

## LIMITATIONS OF HYGIENIC CLADDING

When fitted correctly, the AM-Guard Wall Protection system can be used to create and maintain hygienic environments in the most challenging conditions.

Our panels and trims combine to create a robust system with excellent adhesion to all sound substrates when the correct quality and quantity of adhesives are applied.

AM-Guard sheets are 20 times more scratch resistant than standard PVC sheets and the antimicrobial performance has a Lifetime Guarantee.

AM-Guard Wall Protection sheets have a maximum service temperature of 60°C which should not be exceeded. They should not be installed in behind or in close proximity to heating appliances, radiators, boilers, cookers, oven ranges, wall mounted griddles, kitchen appliances like toasters and sandwich makers etc. where extreme levels of heat could cause distortion or damage to the surface.

Ensure you leave a 3mm–4mm expansion gap between the AM-Guard Wall Protection sheet and any abutments with ceilings, door and window frames and pipework to allow for expansion.

The minimum recommended service temperature is -10°C.

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## INSTALLATION TEMPERATURES

- All installation areas should be kept at a consistent minimum ambient temperature of 14°C. The AM-Guard Wall Protection system should be installed at the same temperature to which the area will be subjected once in use.
- AM-Guard sheets should be stored laid flat on a level surface off the ground to prevent condensation and distortion.
- AM-Guard PVC Wall Protection should not be installed on any substrate where the temperature is likely to reach or exceed 60°C. We recommend the installation of stainless steel sheets in these locations.

## PREPARING THE SURFACE

The AM-Guard Wall Protection system should be fitted to a plumb surface and can be installed over existing tiles, fair-faced brickwork, blockwork, plaster walls and boarded-outstud partitions. The sheets fix directly to the dry substrate using high quality AM-Clad trade adhesives.

Ensure the plumb substrate is clean, dry, smooth and free from dust, grease, flaking paint or any substance that may inhibit the bonding strength of the adhesive. Cladding failure can result if the surface is not adequately prepared.

Uneven surfaces must be made good with professional infill materials and allowed to dry out and settle. If fixing over ceramic tiles these must be thoroughly deep cleaned and allowed to dry out before affixing any cladding. See the **TILES** section on page 5 for detailed guidance.

We recommend that prior to installation all surfaces, including new plaster surfaces, should be brushed and sealed with diluted PVA primer (1:10).

The substrate must be straight to within + or minus 3mm over 2 metres and brick/blocks. Remedial rendering works should use a 1:3 sand to cement mix with a trowelled finish and sealed with a diluted PVA primer.

## SUBSTRATES GUIDE

All substrates must be level over 2 metres to within 3mm. Follow our advice on each substrate mentioned below.

- **Plasterboards** (grey, pink, green, blue etc.) Plasterboards which are 12.5mm thick or thicker than 12.5mm tend to be dusty and must be primed with a PVA solution.
- **Ply or MDF** (Minimum 9mm thick.) A minimum thickness of 12mm is recommended where shelves or cupboards are going to be fixed. Ensure all joints are level.
- **Tiles** must be securely bonded to the substrate and level, free from grease and well cleaned. See our **TILES** section on page 5.
- **Sand and cement render.** This must be trowel finished to ensure an even, flat and plumb surface. We do not recommend welded joints on this substrate.
- **Painted walls** must be free from grease and flaking.
- **Brick and Blockwork** must be level and free from snots. We do not recommend welded joints on this substrate.

# TILES

When installing AM-Guard Wall Protection over existing ceramic tiles, follow the detailed guidance below.

1. Ensure all tiles are securely bonded to the substrate. Do not fix over loose tiles.
2. Check the surface is straight to within + or minus 3mm over 2 metres.
3. Thoroughly clean and degrease the tiles using a suitable degreasing agent and a scouring pad. Fully rinse with clean water and allow the area to dry out.
4. Abrade the surface with a diamond abrasive disc to scratch through the tile glaze, then remove all dust from the area.
5. Thoroughly rinse the tiles again and allow to dry out.
6. Coat with diluted PVA primer (1/10) to seal.

# SERVICES AND FITTINGS

Pipework and plumbing services should be removed to create a 'first fix state'. 'Tails' should be left which can penetrate the holes drilled in the AM-Guard PVC sheet when it is fitted to the wall.

Holes in the cladding sheet should be drilled 3mm to 4mm oversize to allow for expansion around pipes, fixings and bolts. These should be sealed using matching AM-Guard sealant which will accommodate normal levels of expansion.

All electrical services must be moved or altered by a qualified electrician. Switches, cables and power points should be left in a 'first fix state'.

# AM-GUARD SHEET INSTALLATION

1. Prior to setting up, check all substrates are suitable for AM-Guard systems.
2. Set up your working area, work bench, tools, and switch on the thermoformer to preheat ready for forming.
3. Draw the datum line on the walls receiving AM-Guard using a laser or water level at a convenient and memorable height.
4. Measure from the datum line down to the finished floor level, then mark this same measurement on the protective film of the AM-Guard sheet, measured from the bottom of the sheet up. All your measurements for cuts will be taken from this point.
5. Measure from the wall datum line to the ceiling and any other cuts/ cut outs and mark these on your sheet whether marking front or back.
6. Cut the sheet using a plunge saw for long cuts, a jigsaw for socket cut outs and hole saws for pipe work pass throughs. Ensure you leave a 3mm-4mm expansion gap between the AM-Guard sheet and any abutments with ceilings, door frames and pipework to allow for expansion.
7. Measure for the required thermoforming and mark up the face of the AM-Guard sheet.
8. Place the AM-Guard sheet on the thermoformer and form the required bends.
9. Hold the AM-Guard sheet up against the wall to test fit.
10. Return the AM-Guard sheet back to the work bench, trim and alter if required.
11. If you are using welded joints, see the **Welded Joints** section on page 11.

## PREPARING THE ADHESIVE

### A. 2-PART POLYURETHANE ADHESIVE

- A1 Gently remove the lid of 2-Part AM-Clad Trade Adhesive and add Part A to Part B.
- A2 Grip the tub firmly between your feet and mix Parts A and B using a drill and paddle for 2-5 minutes (depending on working temperatures), or until the colour is the same throughout. Ensure you move the paddle around the entire tub.
- A3 Clean the back of the AM-Guard sheet using PVC cleaning wipes to ensure there is no contamination which will affect the performance of the adhesive.
- A4 Apply adhesive to the rear of the AM-Guard sheet using a 5mm x 5mm (1/3mm) Square Notched Trowel.
- A5 Recommended coverage per sheet – one 6.5kg AM-Clad 2-Part Adhesive tub will cover **one** standard AM-Guard PVC sheet (8' x 10').
- A6 See page 7 for details of how to affix the AM-Guard PVC sheets.

## B. WATER-BASED 1-PART ADHESIVE

- B1 Gently remove the lid of AM-Clad 1-Part Adhesive.
- B2 Grip the tub firmly between your feet and mix the Waterbased One Part adhesive using a drill and paddle until it reaches an even consistency throughout similar to a thick toothpaste. Ensure you move the paddle around the entire tub.
- B3 Clean the back of the AM-Guard sheet using PVC cleaning wipes to ensure there is no Contamination which will affect the adhesive.
- B4 Apply adhesive to the rear of the AM-Guard sheet using a 3mm x 3mm (2/5mm) Square Notched Trowel.
- B5 Recommended coverage per sheet – one 12kg AM-Clad 1-Part Adhesive tub will cover **four** 8' x 4' (2.4m x 1.2m) AM-Guard PVC sheets and **three** 10'x 4' (3m x 1.2m) AM-Clad PVC sheets.
- B6 See below for details of how to fix the AM-Guard PVC sheets.

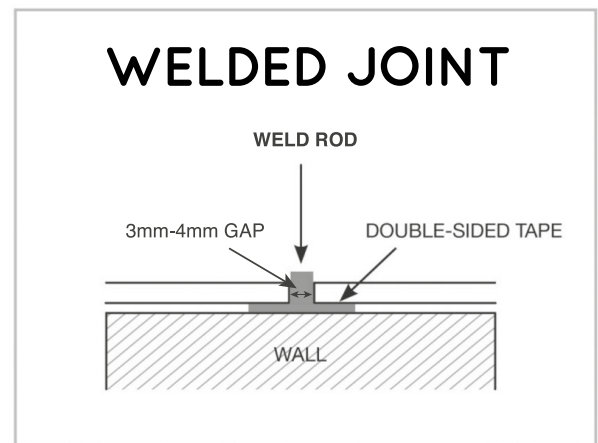
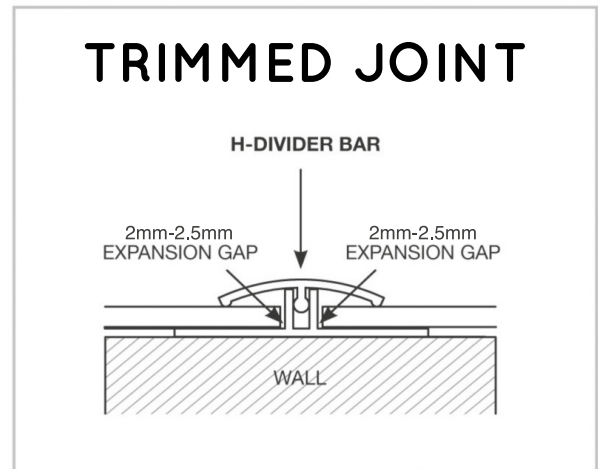
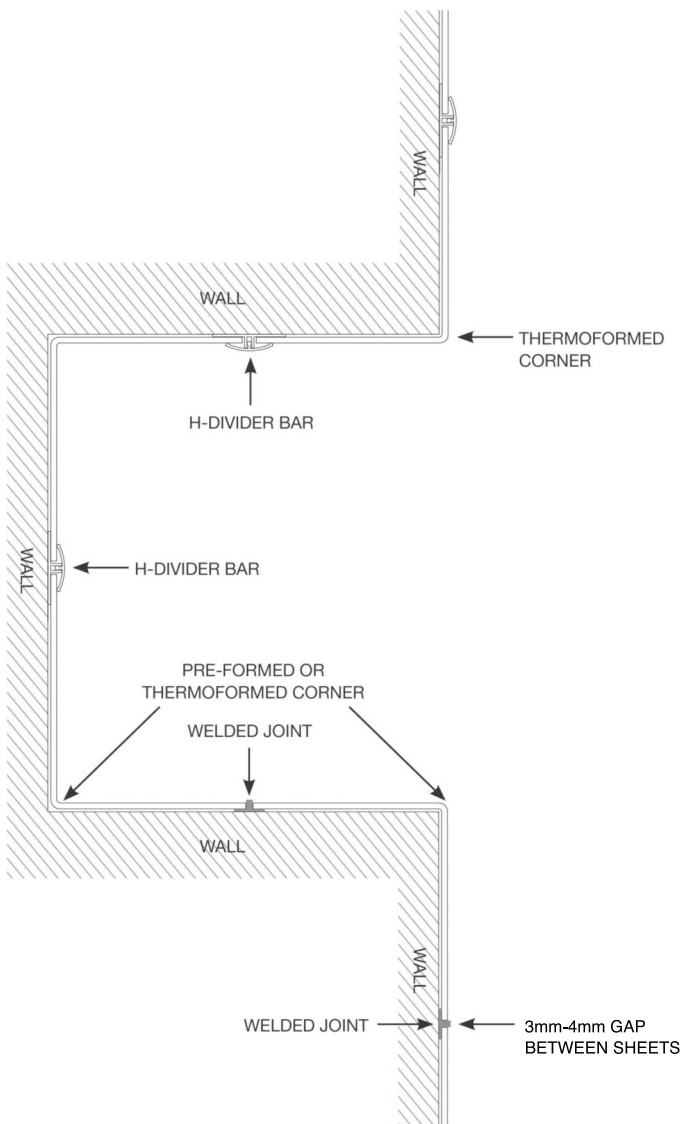
## C. FOIL PACK BONDING

- C1 Load the foil pack into the Foil Pack Applicator Gun.
- C2 Recommended coverage per sheet – a minimum of two 600ml foil packs will cover **one** 8' x 4' (2.4m x 1.2m) AM-Guard PVC sheet.
- C3 See below for details of how to fix the AM-Guard PVC sheets.

# FIXING THE SHEETS

1. Lift the sheet on to the wall and line up the sheet with the wall datum lines. Use a wall roller across the sheet to give even transfer of the adhesive to the substrate.
2. If using PVC trimmed joints, fit the back section of the H-Divider trim behind the sheet. See the **Trimmed Joint** guidance on pages 8, 9 and 10.
3. If welding the joints remove half the protective film from the double-sided tape. See the **Welded Joint** guidance on page 11.
4. Joints should be positioned 300mm from any bends or abutments.
5. Install floor transition trims and any other finishing trims as required. See the **Trimmed Floor** guidance on page 12.
6. Where window sills, heads and door heads are formed, the PVC sheet and joints should be cut to the width of the structural opening.
7. Repeat the above process as you install the AM-Guard system.

# THERMOFORMED INTERNAL AND EXTERNAL CORNERS WITH TRIMMED AND WELDED JOINTS

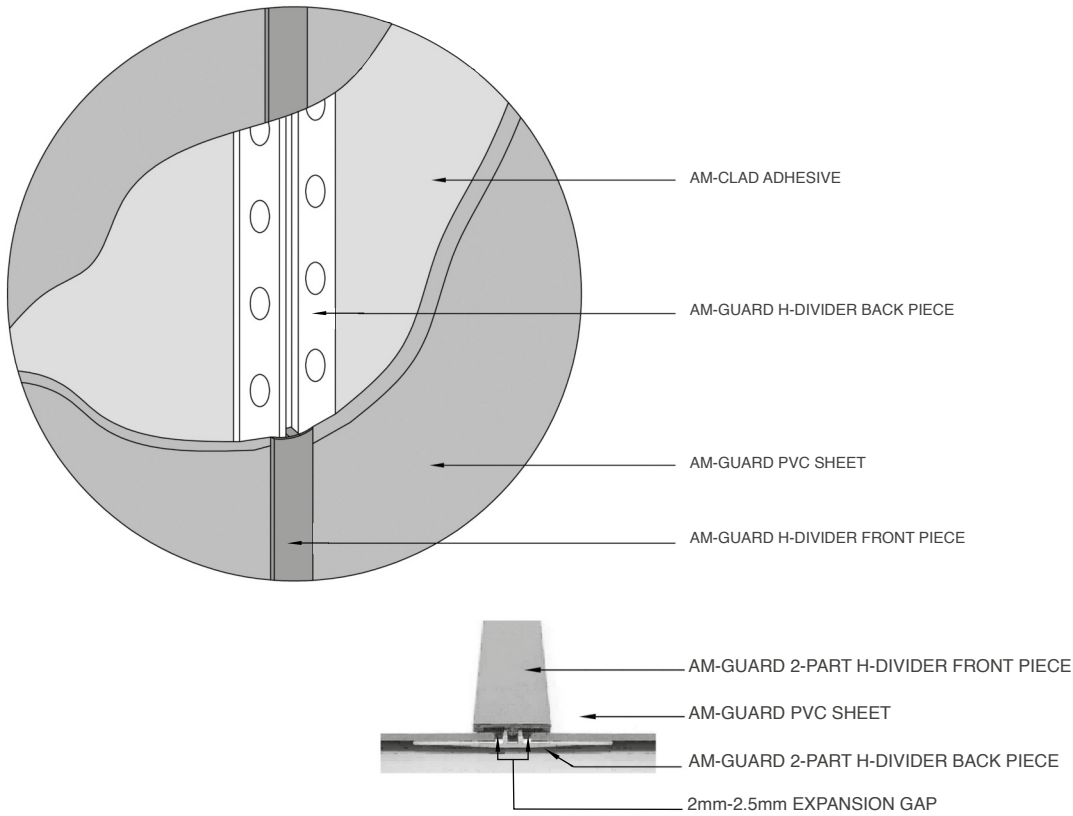


## TRIMMED JOINTS

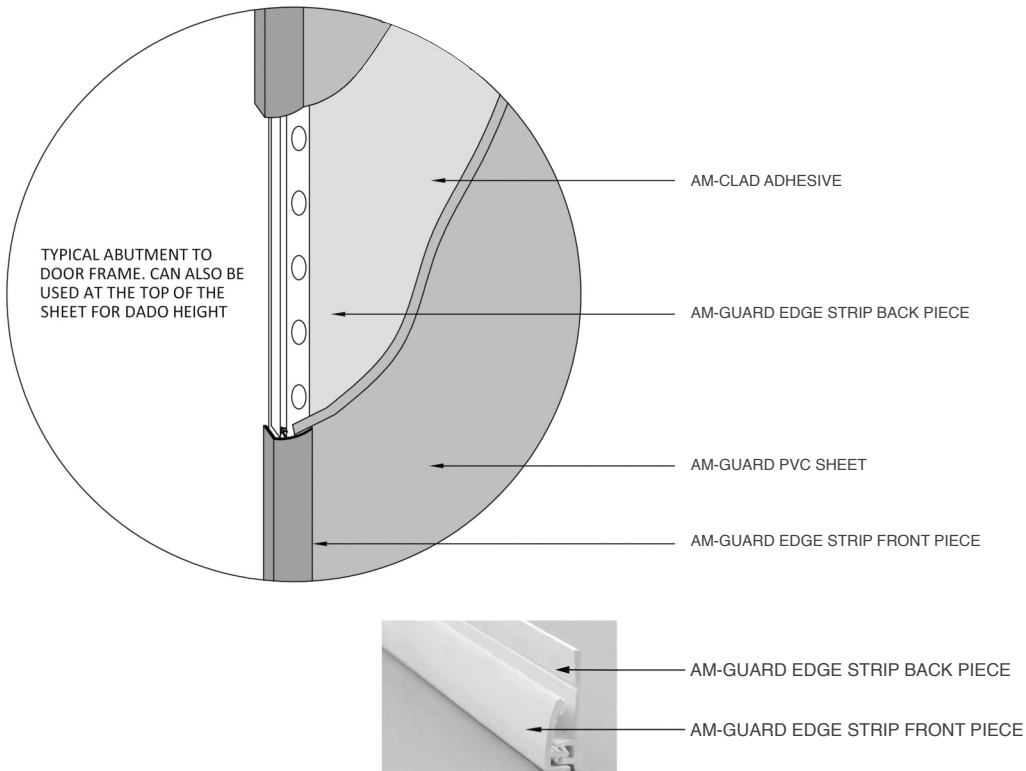
1. Once the first panel of AM-Guard Wall Protection is attached to the substrate, tuck the back of the H-Divider joint trim behind the sheet leaving a 2mm-2.5mm gap between the edge of the sheet and the clip channel of the back trim. Note, H-Divider trims should be cut to size before they are fixed to the substrate and if a skirting transition trim is being installed, the H-Divider joint back needs to be cut short by 20mm to allow for this.
2. Following the installation of all AM-Guard sheets and back trims, add the front part of the 2-Part H-Divider trim using a rubber mallet to ensure it is firmly in place.



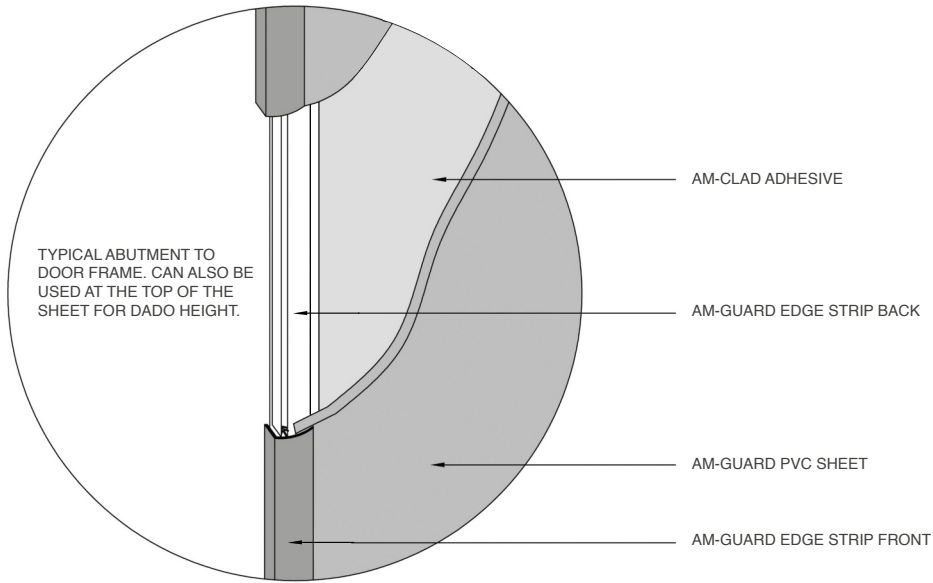
# TRIMMED JOINT H-DIVIDER DETAIL



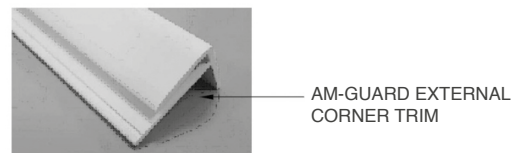
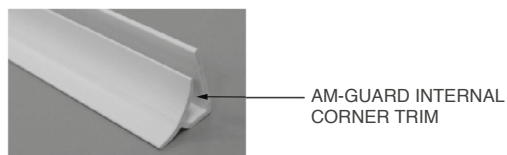
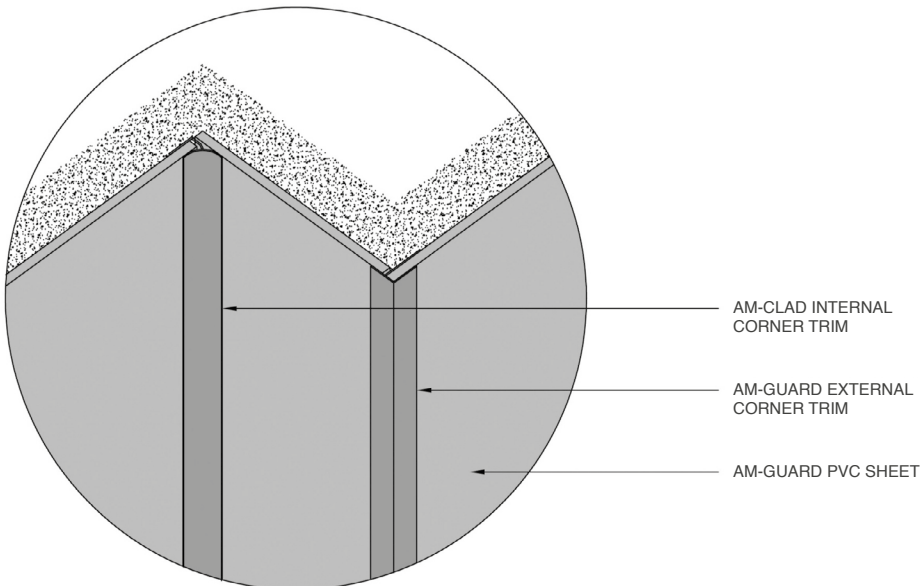
# TRIMMED JOINT EDGE STRIP DETAIL



# TRIMMED JOINT SINGLE PART EDGE STRIP DETAIL



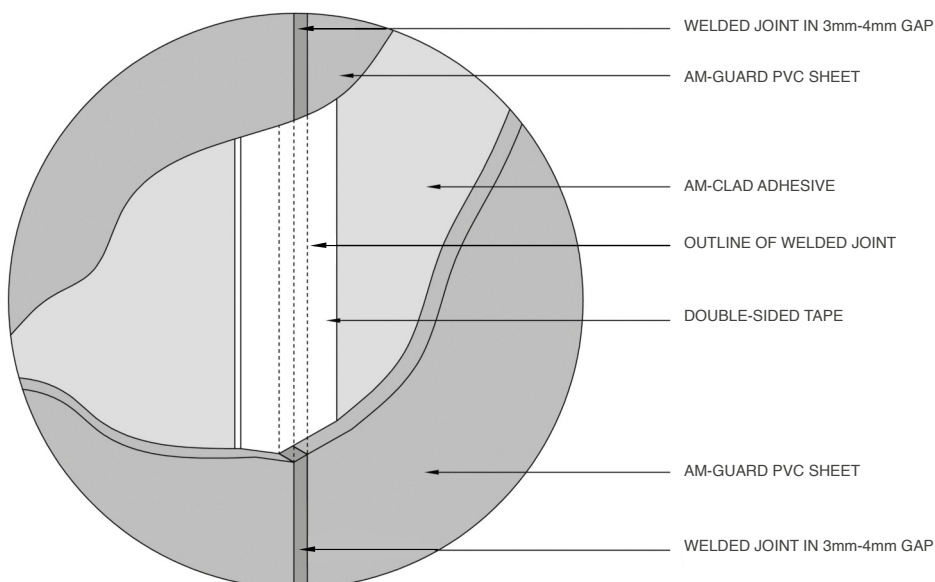
# TRIMMED JOINT CORNER DETAIL



# WELDED JOINTS

1. After deciding where the joint will be on the wall (at least 300mm from corners or abutments) carefully place Double-Sided Foam Tape on the wall at the centre point where the two PVC panels will meet.
2. Apply spray adhesive to the substrate centred at the joints of the AM-Guard PVC sheets and allow to dry before applying the tape.
3. Ensure edges of the AM-Guard sheet are clean and free from burrs or 'fines' which could blemish the panel during the hot weld process. Where edges have been cut with a saw, we recommend using a small block plane to give a true edge.
4. Add your adhesive to the rear of the AM-Guard sheet, ensuring the adhesive is 25mm clear of the edge of the sheet.
5. Carefully cut through and remove half of the tape's protective film and press the AM-Guard sheet firmly onto the tape and check it is aligned with the datum line.
6. Clean all joints using anti-static wipes to prevent dust burning into the joints when welding.
7. Carry out a test weld on AM-Guard PVC off-cuts or scrap material, to ensure the weld gun is at the correct temperature.
8. Begin welding using the weld rod and take care not to burn the AM-Guard sheets.
9. Install the remaining AM-Guard sheets leaving a 2mm-2.5mm gap between between the sheets where the weld rod will be applied. Do not leave a gap exceeding 2.5mm.
10. Allow the weld to cool and trim off excessive weld rod using a blade in a single pass, where possible. Take care not to scratch the PVC during this process.

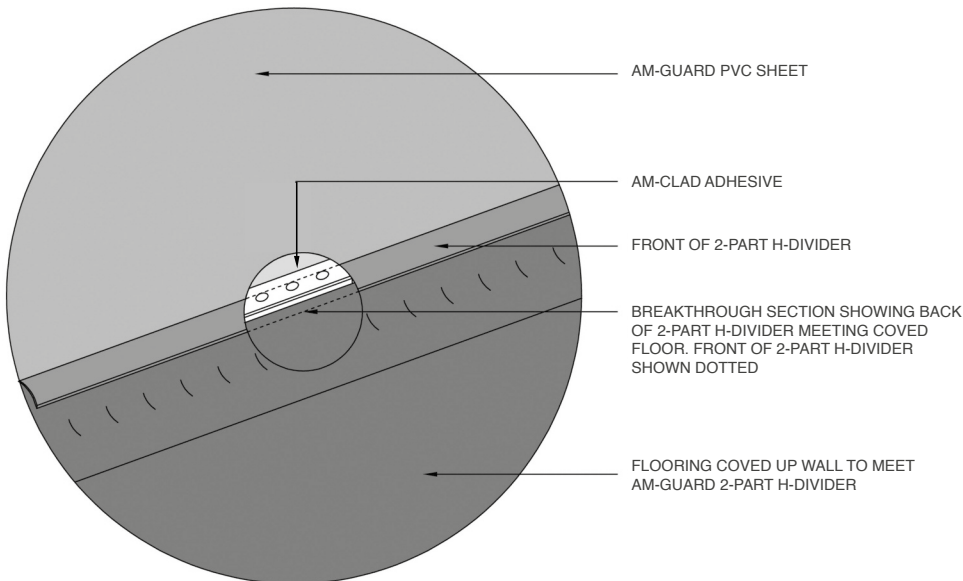
## WELDED JOINT DETAIL



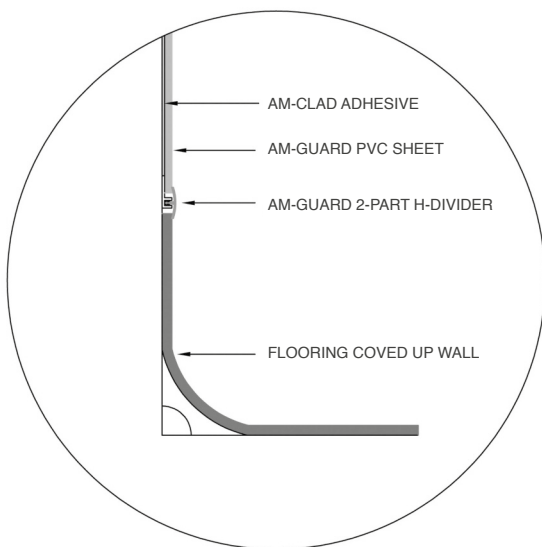
# TRIMMED FLOOR TRANSITION

1. Once all the AM-Guard sheets are fitted, install the cut tile trim by tucking it up behind the underside of the cladding.
2. Loose fit the cover trim bending along the way to form the internal and external angles.

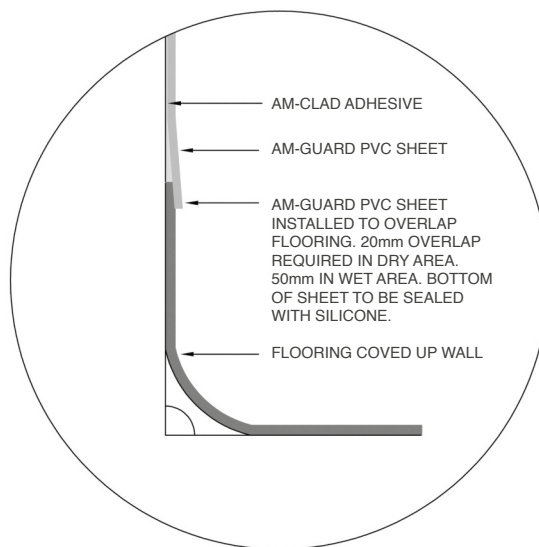
## WALL TO COVERED FLOORING DETAIL



## WALL TO COVERED FLOORING OPTIONS



TRANSITION DETAIL WITH TRIM  
(DRY AREA)



OVERLAP DETAIL WITHOUT TRIM  
(WET/DRY AREA)

# COMPLETION

Once all sheets and joints are installed and sealed with silicone, leave the protective film on the AM-Guard Wall Protection sheets until all trades have completed their work. This will protect the PVC cladding from dust and prevent static build up.

After all trades have finished, peel off the protective film to reveal the pristine hygienic cladding. Clean the cladding with warm water to ensure that dust does not cling to the sheets. An Anti-Static spray can be applied to the cladding after the protective film is removed.

# CLEANING AND MAINTENANCE

Under normal conditions only light cleaning is required using a soft cloth, and a mild detergent diluted in warm water – no hotter than 60°C. Do not use boiling water and do not use abrasive pads or wire wool. Please note that we do NOT recommend the use of hot water lances for cleaning PVC cladded walls. Extremely hot water that exceeds 60°C and steam can damage the seals. Careful pressure washer cleaning at lower temperatures in conjunction with good quality detergents will ensure perfect results. In all cases the lance should not be pointed too close to the cladding (within 600mm).

Please see our Operations & Maintenance Manual for more details on post-installation guidance.



FOR MORE INFORMATION

CALL +44 1274 020 331

WHATSAPP +44 789 187 9050

EMAIL [INFO@AM-CLAD.COM](mailto:INFO@AM-CLAD.COM)

[AM-CLAD.COM](http://AM-CLAD.COM)

AM-CLAD LTD, 10-14 WARD STREET, BRADFORD,  
WEST YORKSHIRE, UNITED KINGDOM, BD7 3PR

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