



EC Clad Hygienic Wall Panel



2026 Installation Guide

Gemini Specialty Finishes
www.gsfinishes.com

Product Overview

GSF EC Clad is a semi-rigid, thermoplastic PVCu wall panel that can be installed over most substrates.

When heat-welded and installed over flash-coved sheet flooring, it is ideal for labs, clean rooms, operating rooms, shower/tub rooms and commercial kitchens.

Product Specifications

Panel Sizes: 1.22m x 2.44m (4'x8') 1.22mx3.05m (4'x10')

Thickness: 2.5mm (0.10")

Weight: 10.4 kg (23 lbs) 13 kg (29 lbs)

Typical Applications

- Laboratories
- Clean rooms
- Pharmaceutical Production
- Operating Rooms
- Scrub Rooms
- Sterilization Rooms
- Back Splashes
- Food Production Areas
- Kitchens
- Showers
- Veterinary Clinics
- Corridors

Limitations

Avoid installation near a heat source such as, steam kettles, pizza ovens, cooking ranges, etc., or where exposed flame or severe heat could cause distortion. Follow local building codes for approved applications.

- **Temperature Range:** Panels should not be exposed to temperatures above 60° C (140° F). and not recommended for installations subject to temperatures below -5° C (23° F) where it is exposed to high impact. It is fine for refrigerated storage but is not recommended for freezers.

This is for guidance only, if there are any doubt or if you have questions about installation, please contact us at 888-661-7770.

Tools and Equipment

Safety Gear - protective gloves, safety boots and safety glasses

Hand Tools - 1/8" square notch trowel (smooth walls), tape measure, levels, rubber mallet, wall roller, caulk gun, hole cutter, edge scraper, anti-static solution, straight edges, chalk line and metal trim knife.

Power Tools - PVC strip heater, plunge track saw kit, jigsaw, drill and heat welder with 4mm narrow flow tip.

Other - appropriate size workbench and stands for PVC strip heater.

Safety Procedures

Follow all local safety regulations.

Ensure good ventilation, provide forced air if required.

Remove and dispose of waste as per all local guidelines and requirements.

Job Site Conditions

Operating Temperature

Service temperature of up to 60°C (140°F). when cleaning with hot water, temperature should be regulated to a maximum of 60°C (140°F) and not localized for an extended period of time.

Installation Temperature

To ensure that expansion parameters are not exceeded, install at approximately the same ambient service temperature, between 18°C (68°F) and 27°C (80°F).

Suitable Surfaces

1. Good quality, brick or blockwork and all irregularities should be repaired and made smooth. Must be straight to within 1/8" over 6 feet and bricks/blocks flush.
2. 5/8" thick fire rated sheetrock, ceramic tile backer board, min 3/8" MDF/Plywood, all substrates must meet local code requirements.
3. Ceramic tiles must be securely bonded to the, fully clean and free of soap scum and all other containments.
4. Most sound painted surfaces (an adhesive test is advisable to determine suitability).
5. New sheetrock, plaster are dusty, surfaces to be brushed and thoroughly sealed with a paint primer.

Surface Preparation

1. All substrates to be dry to 16% wood moisture equivalent.
2. All loose paint and dust to be removed.
3. Brittle surfaces to be removed or made sound.
4. All surfaces to be free from grease. Ceramic tiles to be thoroughly cleaned, degreased and rinsed.
5. Loose tiles should be removed and area is to be made good using feather finished or plywood infill.
6. Depressions in substrate surface should be filled with feather finish.

Wall Substrates

Panels can be applied to almost any solid wall surfaces. All surfaces must meet these requirements:

- Walls should be smooth and flush.
- Wall tiles must be fixed firmly to the wall.
- Surfaces must be permanently dry and free from all substances that may contribute to adhesive bond failure.
- Remove loose paint and conduct an adhesive bond test.
- Exterior walls must be adequately damp-proofed and insulated.
- Drywall substrates should be paint ready.
- All electrical should be in a first-fix/installation ready. All electrical should only be moved or altered by a qualified electrician.
- All plumbing should have pipe-work removed to a first-fix or installation ready state and "tails" left protruding from the substrate. Panels can be drilled and slid over the pipe tails. All holes should be drilled 1/8" (3mm) oversize to allow for expansion, then sealed with sealant. Plumbing should always be done by a qualified plumber.
- Hot/steam pipes should be insulated and a 1/4" (6mm) expansion gap should be created when installing panels, then sealed with sealant.
- Door frames and door casings must be in place prior to installation.
- Panels should be stored flat and be pre-conditioned a minimum of 24 hours in ambient temperature.
- **The panels must be stored on a level flat surface above the ground** (risk of condensation on the panels if stored on damp surfaces). Storage on uneven surfaces could cause the panels to distort prior to installation.
- Check room using a 6' level to ensure all walls are flat and plumb, paying particular attention to the corners, window reveals, and door entrances. These need to be inspected to ensure they are free of any debris or irregularities, which could prevent the panels laying flat to the substrate.
- If the corners are deemed out of plumb or vary too much, they should be brought to a maximum tolerance of 3/16".

Pre Installation Instructions

Apply a datum line around the entire installation area, this is used to calculate measurements for ceiling/floor height, outlets, pipes, etc., and to ensure the panels are plumb as the installation proceeds. It is recommended to set this datum line at 5' (1.55 m) off the finished floor or near eye level and is easy to locate when installing the panels on the wall. When installing the panel as a wainscot the height will require a lower datum line location. Datum lines can be set using a laser level or chalk line.

Inspect panels for damage or imperfections.

On the wall measure from the datum line down to where the panel is to end and on the panel, starting from one of the finished ends of a panel, make a mark on the protective film of the panel with the same measurement. Repeat this measurement on the other side of the panel and draw this datum line across the panel face of the protective film, this will be your datum line. You will use this to measure off all your height measurements. The bottom edge will not require cutting.

On the wall measure from the datum to the ceiling or any other point where you need to determine the height of a cut, allowing a minimum of 1/16" space between the panel and any abutment.

Cut the panel using a plunge saw with track, jigsaw, multi-master or any other appropriate method of your choice.

Once cut for height and penetrations make bends as needed using PVC strip heater. Caution it may be necessary to leave your ceiling cut 1" inch longer as this will allow the direct scribe of the panel to the ceiling when the corners are out of square; the scribe is done to the panel by first bending the panel for the corners and then by holding the formed panel on the wall 2" down from the datum line and ceiling and then direct scribing the top of the panel to the ceiling with a 2" straight edge or by using dividers set to 2". The seam edge at the leading edge of the panel may now require to be re-plumbed and cut to fit straight up and down and level. peel back and remove the protective film approximately 2" (50mm) from the edge.

Dry fit panel on substrate, confirm fit and the panel edge is plumb/level ensuring a minimum 1/16" (2mm) expansion joint at all abutments and pipe work.

Prior to installing panel, lay panel face-down on workbench and clean with anti-static solution.

Apply the double faced tape according to the selected seam method. (DO NOT remove the tapes' protective film at this time).

Dust and clean the wall surface, prepare the panel and spread the adhesive.

After all bends and cuts are made, apply the adhesive to the back of the panel, using the recommended trowel.

Adhesives working time is approximately 40 minutes depending on the ambient temperature of the room. Pull the trowel across the width of the panel so all notches run left to right to the entire panel.

At any points where there may be a gap between the wall and panel, apply additional adhesive, especially at inside and outside corners.

After the adhesive has been applied, place the panel to the wall and adhere to the required location using the datum line.

Apply pressure to the whole panel face to ensure the adhesive has been transferred and will be fully bonded to the substrate using a wall roller to prevent the surface from being damaged.

Failure to ensure a good transfer of adhesive to the substrate could result in the panel debonding.

Recommended Adhesive - Uzin KE 68T is a one part adhesive that can be used in wet and dry areas

Jointing Methods Overview

There are three types of jointing methods.

Heat Weld

Heat weld is the preferred method for a fully hygienic, smooth, seamless installation.
A mock up must be heat welded and inspected by client for approval prior to proceeding with entire installation.

Cold Seaming

Cold seaming is an alternative to heat-welding and this method should be approved by client prior to proceeding.

Butt Seam

Butt seam installation follows similar setup to heat welding installation, however, not meant for critical hygienic spaces. Typically used for wainscoting.

Installation details

All burrs from panel edges must be removed. For best results, factory edge to factory edge is strongly recommended.

Substrate

Substrates should be clean, smooth and flat. Recommended substrates are drywall, plywood and plaster. **Please call for guidance if panels to be installed over block wall or tile.**

Heat Weld

- Foam tape is recommended at the seams and should be installed on the wall and centered between the panels.
- Apply adhesive to back of the panel leaving spaces along the edges of the panel to accommodate the foam tape.
- Allow 1.5mm gap between the panel in preparation for heat welding.
- Clean the seam and the weld rod.
- Test weld on off cuts is always recommended prior to welding the finished panels.
- Trim weld rod once cooled, it recommended for a two pass trim.
- Check panels alignment with the datum line before rolling panel, this will achieve full transfer of adhesive to substrate.
- Start rolling from middle of the panel and work outwards.
- Take caution not to burn panel during welding as this be impossible to repair.

Cold Seaming

- Similar setup to heat welding
- Foam tape is recommended at the seams and should be installed on the wall and centered between the panels.
- Apply adhesive to back of the panel leaving spaces along the edges of the panel to accommodate the foam tape.
- Allow 1.5mm gap between the panels.
- Clean the seam.
- Install panel, check alignment with the datum line before rolling panel, this will achieve full transfer of adhesive to substrate.
- Start rolling from middle of the panel and work outwards.
- It recommended to use painters tape at the seams for a consistent and clean finish.
- For best results use a cordless sealant tool gun as it offers a more consistent flow using GSF recommended sealant.
- Sealant can be tooled after applying, remove painters tape if used and allow 24 hours for a full cure.
- The other option is to apply the sealant, remove the painter tape and allow 24 hours to cure. Once fully cured, use a trim knife to trim the sealant.

Butt Seam

- Similar setup
- Foam tape is recommended at the seams and should be installed on the wall and centered between the panels.
- Apply adhesive to back of the panel leaving spaces along the edges of the panel to accommodate the foam tape.
- Install panel, check alignment with the datum line before rolling panel, this will achieve full transfer of adhesive to substrate. Start rolling from middle of the panel and work outwards.
- Install finishing cap or sealant to finish top edge if installing as wainscoting.

Heat Bending

Heat bending panels allows installers to form the panel to the contours of the room offering a seamless finish around inside and outside corners.

Bending the panel requires an appropriate sized table and must be flush with the bender allowing the panel to be laid across the heat element.

Take measurement and then mark the panel at the edge on sides where the bend will occur, center the lines over the heat element, heating from the backside. Heating the face can be achieved by removing the protecting film first. Allow approximately 30 second for the panel to heat up, once a visible softening of the panel, remove panel and place on flat table to allow for forming the bend to the appropriate angle allow to cool. Cooling takes approximate 1 -2 minutes.

Always take into account the thickness of the panel and the adhesive when measuring for your bend.

Cleaning

Initial Cleaning

Once all panels are installed, remove protective film, thoroughly clean using an anti-static solution or wipes, alternatively liquid soap and water would be sufficient. This will remove static build up and any dust adhered to panel.

Regular Cleaning

Clean as required using a diluted liquid soap and water. The temperature of the water must not exceed 60° C (140° F),

For stubborn stains, an alkaline cleaner can used.

Pressure cleaning with hot water must be from a minimum distance of 600mm (2 ft) from the surface.

Accessories

Finishing edge



Welding Rod



Sealant



Adhesive

