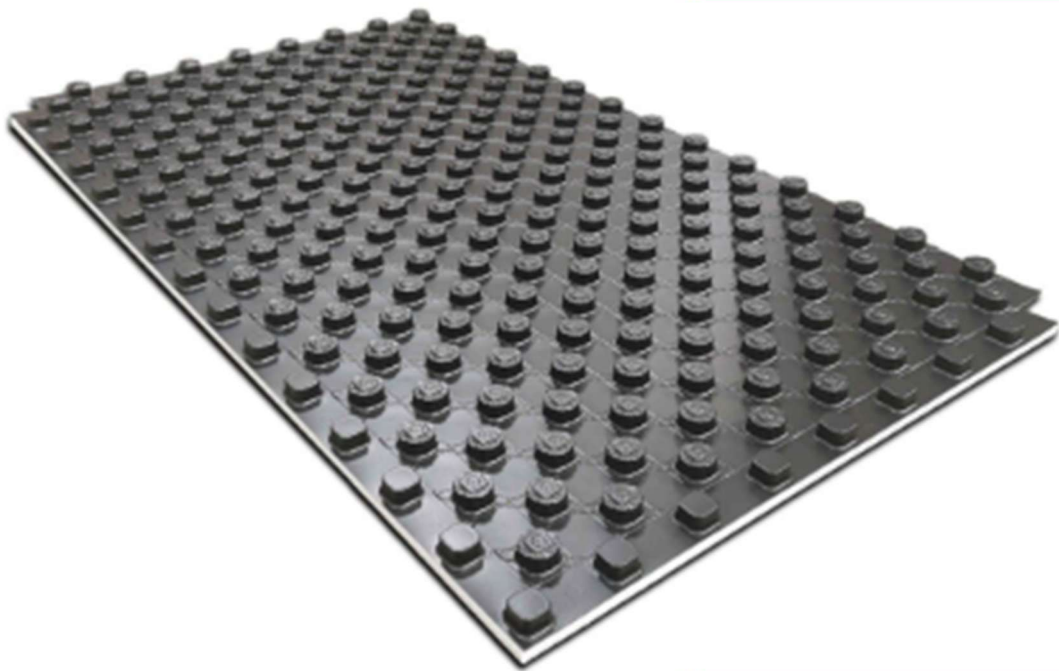


2026

Installation Guide for Screeded Floor Applications Castellated Panel with 10mm EPS Backing Board



Designed to Heat. Built to Last

Tekwarm

31/07/2026

INSTALLATION GUIDE FOR SCREEDED

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SELF-ADHESIVE BACKING PANEL SYSTEM

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1. INTRODUCTION

The Tekwarm Castellated Panel Underfloor Heating System with 10mm EPS backing board is designed for use within screeded floor constructions where warm water underfloor heating pipework is secured into castellated panels before the screed is installed.

This system combines the benefits of a castellated pipe-retention panel with a 10mm EPS backing board bonded to the underside. The castellated surface helps maintain accurate pipe spacing, while the EPS backing provides an integrated support layer and helps separate the pipe-retention panel from the receiving substrate.

The panels are laid onto a clean, level and suitable substrate. Depending on the project build-up, substrate type and screed selection, the panels may require additional restraint to prevent movement, rocking or uplift during pipe installation and screeding.

The panels must be overlapped using the integrated overlapping edge to help seal between boards, reduce the risk of screed passing beneath the panels and prevent uplift during screeding.

The system typically includes:

- Tekwarm castellated panels with 10mm EPS backing board
- Tekwarm underfloor heating pipe
- Suitable panel fixings or additional restraint where required
- Optional suitable tackifier spray or compatible adhesive support where required
- Edge expansion strip
- Manifold assembly
- Pipe conduit / protection sleeves
- Fixing tools and accessories
- Pressure testing equipment

This guide covers the key stages of installation, including substrate checks, manifold positioning, laying of the 10mm EPS-backed castellated panels, panel overlap, pipe laying, connection to the manifold, filling and pressure testing before screeding.

This guide should be read alongside the Tekwarm UFH design, manifold schedule, screed manufacturer's guidance, floor finish requirements and all relevant British Standards.

2. IMPORTANT NOTES BEFORE STARTING

Before installation begins, check that:

- The Tekwarm UFH design has been reviewed and understood.
- The manifold location has been agreed.
- Pipe centres, loop lengths and room zones match the supplied design.
- The correct pipe diameter has been supplied.
- The correct Tekwarm EPS-backed castellated panel type has been supplied.

- The panel layout has been considered before installation begins.
- The substrate is suitable to receive the EPS-backed panels.
- The receiving surface is clean, dry, level and free from debris or contaminants.
- The screed type and depth have been confirmed.
- The total floor build-up has been checked, including the 10mm EPS backing board.
- Door thresholds, stair positions and floor level transitions have been reviewed.
- Expansion joints, movement joints and doorway thresholds have been reviewed.
- The area is weather-tight before installation begins.

Do not install the UFH system if the receiving surface is damp, unstable, uneven, contaminated or incapable of supporting the panels properly. A 10mm backing board helps the system, but it will not flatten a bad floor.

3. HEALTH AND SAFETY

Installation should only be carried out by competent persons.

Always wear appropriate PPE, including:

- ✓ Safety boots
- ✓ Gloves
- ✓ Eye protection
- ✓ Knee protection
- ✓ High-visibility clothing where required
- ✓ Dust protection where cutting EPS-backed panels or preparing substrates

Keep work areas clean and free from trip hazards. UFH pipework, EPS-backed panels, manifold pipe tails and loose materials can create trip risks during installation.

Avoid unnecessary traffic over installed pipework and panels. Where access is required, use suitable temporary protection or crawl boards.

Take care when cutting panels. Use appropriate cutting tools and cut away from the body. EPS offcuts and debris should be removed from the work area as installation progresses.

4. TOOLS AND EQUIPMENT REQUIRED

Typical tools and equipment required include:

- Pipe decoiler
- Pipe cutter suitable for UFH pipe
- Tape measure
- Marker pen
- Utility knife or panel cutting tool
- Insulation saw, handsaw or suitable cutter for EPS-backed panels
- Soft broom or vacuum for cleaning substrate
- Suitable panel fixings where required
- Suitable tackifier spray or compatible adhesive support where required

- Spanners / manifold connection tools
- Pressure test pump
- Hose connections
- Water supply for filling
- Spirit level or laser level
- Temporary pipe protection sleeves/conduit
- Straight edge for checking substrate flatness

The exact tools required will depend on the substrate, restraint method, screed type and project specification.

5. SUBSTRATE CHECKS AND PREPARATION

Before installing EPS-backed castellated panels or pipework, the substrate must be inspected.

The receiving surface should be:

- ✓ Structurally sound
- ✓ Clean and free from debris
- ✓ Dry
- ✓ Free from sharp projections
- ✓ Free from oil, grease, plaster residue, laitance or contaminants
- ✓ Flat and level enough to support the full EPS backing board
- ✓ Free from standing water
- ✓ Suitable for the proposed floor build-up
- ✓ Capable of supporting the finished floor loading

Remove all loose material, mortar droppings, plaster, timber offcuts, fixings, sharp objects and general site debris.

Sweep and vacuum the surface before panel installation.

The Tekwarm castellated panel with 10mm EPS backing board must sit flat and be fully supported. Any unevenness, rocking, voids or localised high spots should be addressed before installation continues.

The EPS backing board should not bridge over voids or unsupported areas. Unsupported EPS may compress, fracture or move under loading, which can affect pipe stability and screed performance.

Where the substrate is uneven or unsuitable, consult the main contractor, builder, architect or structural designer before proceeding.

6. FLOOR BUILD-UP AND LEVEL CHECKS

Because this system includes a 10mm EPS backing board bonded to the castellated panel, the overall floor build-up must be confirmed before installation.

Check:

- Existing substrate level

- Panel thickness including EPS backing
- Pipe diameter
- Required screed cover above pipe
- Final floor finish thickness
- Door thresholds
- Stair risers
- Skirting details
- Floor level transitions between rooms
- Compatibility with adjoining floor areas

Do not start installation until the finished floor level has been checked and agreed.

Where floor levels are tight, the 10mm EPS-backed panel should be assessed against the required screed depth and minimum cover above pipework.

7. SETTING OUT THE INSTALLATION

Before installing the EPS-backed castellated panels or pipework, review the Tekwarm UFH layout drawing.

Check:

- Room names and zones
- Manifold position
- Flow and return routes
- Pipe spacing / centres
- Loop lengths
- Pipe direction
- Doorways and thresholds
- Expansion joint locations
- Areas where pipe should not be installed
- Fixed furniture, kitchen islands, sanitaryware or service zones
- Position of thermostats and floor sensors where required

The installer should mark out key room zones, manifold routes, movement joints and no-pipe areas before laying the panels.

Pipe should generally not be installed beneath fixed units, kitchen islands, baths, shower trays, toilets, fitted wardrobes or areas where permanent fixtures may trap heat or restrict access, unless specifically allowed within the Tekwarm design.

Before laying panels, consider the best starting point. The panel layout should allow the overlapping edges to engage correctly between boards and help create a sealed, stable installation.

Dry-lay initial panels where helpful to confirm orientation, cuts and overlap direction before final positioning.

8. MANIFOLD POSITIONING AND MOUNTING

The manifold should be installed in the agreed location shown on the Tekwarm design.

The manifold should be:

- Accessible for commissioning, servicing and maintenance
- Positioned to allow neat pipe routing
- Located where all loops can return without excessive pipe congestion
- Mounted level
- Securely fixed to a suitable wall, cabinet or support frame
- Protected from impact and site damage
- Positioned high enough to allow pipe connections and suitable bending radii

Avoid positioning the manifold behind fixed kitchen units, in inaccessible cupboards or in areas where future access will be restricted.

Mount the manifold brackets securely. Fit the manifold to the brackets and check that it is level.

Allow sufficient space below the manifold for pipework to rise neatly into the connections without tight bends or kinks.

Clearly identify flow and return bars before connecting pipework.

9. EDGE EXPANSION STRIP

Install edge expansion strip around the full perimeter of the heated floor area before screeding.

Edge expansion strip should be installed:

- Around walls
- Around columns
- Around upstands
- At door thresholds where required
- Around fixed penetrations
- Against all vertical elements that the screed may contact

The edge strip allows for screed expansion and helps reduce thermal bridging and acoustic transfer at the perimeter.

The edge strip should be continuous and should extend above the proposed screed height. Excess can be trimmed after screeding and before floor finishes are installed.

Take extra care to ensure perimeter panels are flat, stable and properly restrained. Pipe tension around edges and returns can cause localised panel movement if the EPS-backed board is not fully supported.

10. LAYING THE TEKWARM CASTELLATED PANELS WITH 10MM EPS BACKING BOARD

Tekwarm castellated panels with 10mm EPS backing board should be laid flat onto the prepared substrate.

The panels should be installed:

- Clean and free from debris underneath
- Flat and fully supported
- Tightly joined together
- In the correct orientation
- With overlapping edges fully engaged
- Without rocking, curling or lifting
- With cut edges kept neat and stable
- With suitable additional restraint where required
- Without crushing or damaging the EPS backing

The panels include an overlapping edge designed to create a secure connection between boards. This overlap must be used correctly to help form a sealed and stable layer.

The overlapping edge helps:

- Connect adjacent panels
- Reduce gaps between boards
- Prevent screed passing between panels
- Reduce the risk of panel uplift
- Reduce the risk of screed lifting the panels
- Improve stability during pipe installation and screeding
- Maintain alignment between boards

Do not simply butt the panels together where the overlap should be used.

Each panel should be checked as it is laid to ensure the overlap is fully seated and the castellations line up correctly.

11. RESTRAINING THE EPS-BACKED PANELS

The 10mm EPS backing board provides an integrated support layer, but the panels still need to remain flat and stable during installation and screeding.

The required restraint will depend on:

- Substrate type
- Substrate flatness
- Room size
- Panel layout
- Pipe layout
- Pipe tension
- Screed type
- Expected site traffic

- Whether flowing or traditional screed is being used

Where panels are stable and fully supported, they may be loose laid in accordance with the Tekwarm design and project requirements.

Additional restraint should be considered where there is a risk of movement or uplift.

Extra restraint may be required at:

- Perimeters
- Corners
- Doorways
- Manifold routes
- Pipe return bends
- Areas where pipe tension may lift the panel
- Cut panel sections
- Small infill pieces
- Thresholds
- Movement joint areas
- High-traffic access routes before screeding

Additional restraint may include:

- Suitable mechanical fixings
- Compatible tackifier spray
- Compatible adhesive support
- Other Tekwarm-approved restraint methods

Where mechanical fixings are used, check for buried services before drilling into the substrate.

Where tackifier spray or adhesive support is used, it must be compatible with the EPS backing board, receiving surface and screed system.

Do not use solvent-based adhesives or products that may attack EPS unless compatibility has been confirmed.

12. PANEL OVERLAPS AND SEALING BETWEEN BOARDS

The panels must be overlapped using the integrated overlapping edge.

This is important because the overlap helps create a seal between boards and reduces the risk of:

- Screed flowing beneath the panels
- Panel uplift during screeding
- Screed lifting the boards
- Voids beneath panels
- Movement during pipe installation
- Poor pipe alignment
- Inconsistent screed cover

Each panel should be checked as it is laid to ensure the overlap is fully seated and the castellations line up correctly.

Where panels have been cut and the standard overlap cannot be maintained, extra care must be taken to secure and seal the joint as appropriate for the floor build-up and screed type.

For flowing screeds, the panel overlap and sealing detail is especially important. If liquid screed gets beneath an unsecured panel, it may lift the board and compromise the floor build-up.

13. CUTTING AND DETAILING PANELS

Panels may need to be cut around walls, columns, services, thresholds, drainage points or other obstructions.

When cutting panels:

- Measure carefully before cutting
- Use suitable cutting tools
- Support the panel while cutting
- Keep cut edges neat
- Avoid tearing or crumbling the EPS backing
- Avoid leaving small loose pieces unsupported
- Secure cut sections properly
- Maintain the panel overlap wherever possible
- Avoid creating gaps where screed can pass beneath the panel
- Ensure the pipe route remains achievable
- Add restraint to small pieces where required

Small offcuts and perimeter strips should be restrained securely. Loose perimeter pieces are at high risk of lifting when pipe is installed or when screed is poured.

Where the standard overlap cannot be maintained due to cuts, take extra care to seal, restrain or support the joint as required by the project build-up.

Remove EPS debris and offcuts before installing pipework.

14. PIPE HANDLING AND STORAGE

Tekwarm UFH pipe should be handled carefully.

Before installation:

- Store pipe on a clean, dry surface.
- Keep pipe in its packaging until required.
- Protect pipe from sharp objects.
- Do not drag pipe across rough surfaces.
- Do not install damaged, kinked, crushed or heavily scratched pipe.
- Do not expose pipe to unnecessary heat or naked flames.
- Use a pipe decoiler to prevent twisting.

Pipe should be installed in continuous loops from the manifold and back to the manifold. Do not join pipework within the screed unless specifically approved by Tekwarm and the project design team.

Any damaged pipe should be replaced.

15. LAYING PIPEWORK INTO THE CASTELLATED PANELS

Start each loop at the manifold.

Connect the pipe to the correct manifold port or leave sufficient pipe length for connection, depending on the preferred installation method.

Lay the pipe in accordance with the Tekwarm UFH design drawing.

Pipe should be laid:

- ✓ At the specified pipe centres
- ✓ In the correct room or zone
- ✓ Without kinks
- ✓ Without twisting
- ✓ With smooth bends
- ✓ With adequate spacing from walls and fixed elements
- ✓ Without crossing other heating pipes unnecessarily
- ✓ With flow and return routes kept neat at the manifold
- ✓ Firmly located between the castellations
- ✓ Without forcing the panel to lift, rock or move

Push the pipe carefully into the castellated panel channels so that it is held securely.

The pipe should sit properly between the castellations and should not spring out, twist, pull the panel up or distort the board connection.

Where pipe tension causes panel movement, stop and provide additional restraint before continuing.

Pay particular attention to:

- Corners
- Loop returns
- Manifold areas
- Perimeter runs
- Doorways
- Cut panel sections
- Areas where tight pipe bends are required

The pipe must not be forced into bends tighter than the recommended bend radius. If a pipe kinks, the affected section should be replaced or technical advice sought.

16. MAINTAINING PIPE SPACING

The castellated panel system is designed to help maintain consistent pipe centres.

Do not alter pipe centres without approval. Changing pipe spacing can affect:

- Heat output
- Floor surface temperature
- System balancing
- Comfort levels
- Flow rates
- Loop pressure loss
- Boiler or heat pump efficiency

The pipe should be checked as installation progresses to ensure it follows the correct spacing and layout.

Pay particular attention to:

- Perimeters
- Doorways
- Manifold routes
- Bay edges
- Areas with obstacles
- Rooms with irregular shapes
- Loop returns
- Areas where panels have been cut

Where pipe spacing needs to change due to site conditions, seek approval before proceeding.

17. PIPE SPACING AND NO-PIPE ZONES

Pipe spacing must follow the Tekwarm design.

Pipe should not normally be installed within areas where fixings may later penetrate the floor, unless clearly identified and protected.

No-pipe zones may include:

- ✓ Kitchen islands
- ✓ Fixed cupboards
- ✓ Shower trays
- ✓ Baths
- ✓ Toilets
- ✓ Stair bases
- ✓ Floor-mounted partitions
- ✓ Service penetrations
- ✓ Areas requiring future floor fixings

Mark or photograph pipe positions before screeding. This is especially useful around kitchens, islands, thresholds, stair bases, partitions and service zones.

A photographic record should be retained with the project handover information.

18. DOORWAYS, THRESHOLDS AND MOVEMENT JOINTS

Take care when routing pipework through doorways and across movement joint locations.

Where pipe passes through a movement joint, doorway or screed bay joint, it should be protected using suitable conduit or sleeve.

The sleeve should allow movement between screed bays and reduce the risk of stress being transferred directly into the pipe.

Avoid placing tight pipe bends directly within doorways or movement joints.

Do not run multiple loops tightly through the same narrow point unless this has been considered within the design.

Where the screed contractor has specified movement joint locations, these must be reviewed before pipe installation.

Castellated panels should not bridge movement joints unless specifically approved. Panels should be cut and detailed so the movement joint can function correctly.

19. MANIFOLD CONNECTIONS

Once each loop has been installed, return the pipe to the correct manifold connection.

Cut the pipe cleanly and square using a suitable pipe cutter.

Connect each loop to the correct manifold port using the appropriate Tekwarm manifold connection set.

Ensure:

- ✓ Pipe ends are clean and undamaged
- ✓ Connections are fully inserted
- ✓ Compression fittings are tightened correctly
- ✓ Flow and return are connected to the correct bars
- ✓ Each loop is clearly labelled
- ✓ Loop references match the Tekwarm design drawing
- ✓ Pipework below the manifold is neat and protected
- ✓ Pipe bends into the manifold are smooth and not stressed

Do not overtighten manifold connections. Follow the manifold fitting guidance.

Each loop should be clearly labelled with the room name or circuit number.

20. FILLING THE SYSTEM

Before pressure testing, the system must be filled with water and air must be removed from each circuit.

Typical filling procedure:

- Close the manifold isolation valves from the primary heating system.
- Connect a water supply to the manifold fill point.
- Connect a hose from the drain point to a suitable drain.
- Open one UFH loop at a time.
- Flush water through the loop until air is removed and water runs clear.
- Close the completed loop.
- Repeat for each loop.
- Once all loops are filled and vented, open all loops ready for pressure testing.

The system must be fully vented. Air left in the pipework can affect the pressure test and later system performance.

Pressure testing should be carried out hydraulically using water unless otherwise stated by the project specification or Tekwarm guidance.

21. PRESSURE TESTING BEFORE SCREEDING

The Tekwarm UFH system must be pressure tested before screed is installed.

Pressure testing confirms the integrity of the pipework and manifold connections before they are covered.

A typical pressure testing process is:

- Ensure all pipe loops are connected to the manifold.
- Ensure all loop valves are open.
- Ensure the manifold is isolated from the primary heating system.
- Connect a suitable hydraulic pressure test pump.
- Fill and fully vent all loops.
- Increase the pressure gradually.
- Check all manifold connections and visible pipework.
- Maintain the required test pressure for the required test period.
- Record the test pressure, duration, date and installer details.
- Inspect for any pressure loss or visible leaks.
- Do not screed until the system has passed the pressure test.

The Tekwarm UFH system should be hydraulically pressure tested before screeding. Unless project-specific guidance states otherwise, the system should be tested to 4 bar and checked for pressure stability and visible leaks. The system should remain under suitable pressure during screed installation, in line with Tekwarm and screed manufacturer guidance.

Where there is a risk of freezing, do not leave the system filled with untreated water unless suitable frost protection measures are in place.

Do not proceed with screeding if the pressure test has failed or if unexplained pressure loss is observed.

22. PRESSURE TEST RECORD

A pressure test record should be completed before screeding.

Recommended information to record:

- ✓ Project name
- ✓ Plot / area / room reference
- ✓ Installer name
- ✓ Date of test
- ✓ Manifold reference
- ✓ Number of loops tested
- ✓ Pipe diameter
- ✓ Test pressure
- ✓ Test duration
- ✓ Start pressure
- ✓ End pressure
- ✓ Ambient temperature
- ✓ Any pressure loss
- ✓ Confirmation of visual inspection
- ✓ Installer signature
- ✓ Client / site representative signature where required

A copy of the pressure test record should be retained as part of the project handover file.

23. PRE-SCREED INSPECTION CHECKLIST

Before screed is installed, check:

- ☐ Substrate prepared and suitable
- ☐ Receiving surface clean, dry and level
- ☐ Panels laid flat
- ☐ EPS backing fully supported
- ☐ No rocking or unsupported panels
- ☐ Panel overlaps fully engaged
- ☐ No gaps likely to allow screed beneath panels
- ☐ Perimeter pieces secured
- ☐ Cut panels secured
- ☐ Extra restraint used at edges where required
- ☐ Edge strip installed to all perimeters
- ☐ Pipework installed to design
- ☐ Pipe centres checked
- ☐ Pipe fully seated within castellated panels
- ☐ No pipework causing panel uplift or movement
- ☐ No kinks or damaged pipe
- ☐ Loops connected to manifold
- ☐ Loops labelled correctly
- ☐ Movement joints reviewed
- ☐ Pipe sleeves installed where required
- ☐ Manifold secure and protected

- ☐ System filled and vented
- ☐ Pressure test completed and recorded
- ☐ System left under pressure for screeding
- ☐ Photos taken of pipe layout
- ☐ Screed contractor briefed

The screed contractor should be made aware that UFH pipework and EPS-backed castellated panels are installed and should take care to avoid damaging or displacing the system during screed placement.

24. SCREEDING OVER THE TEKWARM EPS-BACKED CASTELLATED PANEL SYSTEM

Screeding should only begin once the UFH system has passed the pressure test and the panels have been checked for stability.

The screed should be installed by a competent screeding contractor in accordance with:

- Screed manufacturer's instructions
- Project specification
- UFH design requirements
- Relevant British Standards
- Required drying and commissioning procedures

The UFH system should generally remain under suitable pressure during screeding. This helps identify accidental damage during installation and keeps the pipework stable.

Care should be taken to fully encapsulate the pipework and castellated panels with screed and avoid voids around the pipe.

Good screed placement is important for:

- Heat transfer
- Floor strength
- Pipe protection
- Long-term system performance
- Reduction of voids around the pipework
- Avoidance of floating or lifting panels
- Consistent cover above pipework

For flowing screeds, it is particularly important that the panel overlaps are properly engaged and that the panels are sufficiently stable and restrained. Liquid screeds can apply uplift forces if they pass beneath unsecured panels.

Do not allow screed to flow beneath the EPS-backed castellated panels. This can lead to panel uplift, voids, inconsistent cover and potential floor performance issues.

The screed design must allow for the panel and EPS backing board thickness, pipe diameter, minimum screed cover and expected loading.

Do not use the UFH system to force-dry the screed unless the screed has cured sufficiently and the correct commissioning process has been followed.

25. AFTER SCREEDING

Screeding should only begin once the UFH system has passed the pressure test and the panels have been checked for stability.

The screed should be installed by a competent screeding contractor in accordance with:

- Screed manufacturer's instructions
- Project specification
- UFH design requirements
- Relevant British Standards
- Required drying and commissioning procedures

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- ✓ Floor strength
- ✓ Pipe protection
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- ✓ Reduction of voids around the pipework
- ✓ Avoidance of floating or lifting panels

For flowing screeds, it is particularly important that the panel overlaps are properly engaged and that the panels are sufficiently bonded and restrained. Liquid screeds can apply uplift forces if they pass beneath unsecured panels.

Do not allow screed to flow beneath the castellated panels. This can lead to panel uplift, voids, inconsistent cover and potential floor performance issues.

Do not use the UFH system to force-dry the screed unless the screed has cured sufficiently and the correct commissioning process has been followed.

26. FLOOR FINISH CONSIDERATIONS

Before installing floor finishes, check:

- ✓ Screed moisture content
- ✓ Screed surface condition
- ✓ Required drying times
- ✓ UFH commissioning records
- ✓ Floor finish manufacturer's requirements
- ✓ Adhesive compatibility
- ✓ Maximum floor surface temperature

- ✓ Need for primers, smoothing compounds or DPMs
- ✓ Presence of laitance on flowing screeds
- ✓ Requirement for sanding or mechanical preparation

Resilient floor finishes, timber, laminate, vinyl, carpet and tiles all have different requirements.

The floor finish installer must confirm that the screed is dry and suitable before installing the final covering.

27. COMMON INSTALLATION MISTAKES TO AVOID

Avoid the following:

- Installing over an uneven or contaminated substrate
- Failing to clean the surface before laying panels
- Ignoring finished floor level build-up
- Failing to support the EPS backing board fully
- Allowing panels to rock or bridge over voids
- Crushing or damaging the EPS backing
- Failing to install edge expansion strip
- Laying castellated panels without using the overlap
- Leaving gaps between panels
- Allowing screed to pass beneath the panels
- Not adding extra restraint at edges, corners or pipe returns
- Using incompatible adhesives or tackifiers that may attack EPS
- Leaving perimeter or cut panel sections loose
- Changing pipe centres without approval
- Kinking the pipe
- Forcing pipe into tight bends
- Allowing pipe tension to lift or move the panel
- Installing pipe below fixed furniture without design approval
- Failing to sleeve pipe at movement joints
- Leaving loops unlabelled
- Not filling and venting properly
- Failing to pressure test before screeding
- Not leaving the system under pressure during screeding
- Using the UFH system to dry the screed too early
- Allowing other trades to damage exposed pipework or panels

The EPS backing board needs proper support. If the board is wobbling before screed, it is not “settling in” — it is waving a red flag.

28. TEKWARM EPS-BACKED CASTELLATED PANEL INSTALLATION SEQUENCE

1. Review the Tekwarm UFH design.
2. Confirm manifold position.
3. Check the total floor build-up, including the 10mm EPS backing board.
4. Check the substrate is clean, dry, level and suitable.

5. Confirm the substrate will fully support the EPS-backed panels.
6. Install edge expansion strip.
7. Mount and secure the manifold.
8. Set out pipe routes and no-pipe zones.
9. Dry-lay initial panels where required to confirm orientation.
10. Lay Tekwarm EPS-backed castellated panels in the correct orientation.
11. Engage the overlapping edges fully between panels.
12. Check panels are flat, stable and fully supported.
13. Add localised restraint at edges, corners and pipe return areas where required.
14. Secure small cut pieces or perimeter sections.
15. Lay pipework from the manifold.
16. Press pipe securely into the castellated panel channels.
17. Check that pipe tension is not lifting or moving panels.
18. Sleeve pipe at movement joints and thresholds where required.
19. Return pipe loops to the manifold.
20. Cut, connect and label each loop.
21. Fill and flush each loop individually.
22. Vent all air from the system.
23. Hydraulically pressure test the system.
24. Record the test results.
25. Leave the system under suitable pressure.
26. Photograph the completed pipe layout.
27. Proceed with screeding once approved.

29. INSTALLER HANDOVER CHECKLIST

The installer should provide the following information at handover:

- ✓ UFH design drawing
- ✓ Manifold schedule
- ✓ Pipe layout photographs
- ✓ Loop identification records
- ✓ Pressure test certificate
- ✓ Confirmation that receiving surface was clean and dry
- ✓ Confirmation that self-adhesive panels were bonded correctly
- ✓ Confirmation that panel overlaps were engaged
- ✓ Confirmation of additional edge restraint where required
- ✓ Commissioning guidance
- ✓ Screed installation date
- ✓ Screed type and depth if known
- ✓ Any deviations from design
- ✓ Any areas requiring special attention

30. DISCLAIMER

This guide is provided as general installation guidance for Tekwarm Castellated Panel UFH systems with self-adhesive backing. It does not replace project-specific design, manufacturer instructions, screed supplier guidance, structural advice or statutory requirements.



All installations must be carried out by competent persons and in accordance with the Tekwarm design, relevant British Standards, Building Regulations, screed manufacturer guidance and floor finish manufacturer requirements.

Where site conditions differ from the design or specification, works should stop and advice should be sought before proceeding.

Tekwarm / TekGroup accepts no responsibility for failures caused by incorrect installation, unsuitable substrates, unapproved design changes, poor adhesion due to unsuitable receiving surfaces, incorrect panel restraint, panel uplift, screed passing beneath panels, incorrect screed installation, premature heating, inadequate drying, incompatible floor finishes or failure to follow relevant manufacturer guidance.