

CASE STUDY

Tekwarm Micro Low Profile UFH System

Combined with Tekcem 550 Fibre Levelling Screed

Huddersfield retrofit project | Timber substrate | Two-day installation | Commissioned within the week



Project snapshot

Location: Huddersfield

Application: Low profile water UFH retrofit

Substrate: Timber

System: Tekwarm Micro

Screed: Tekcem 550 Fibre

Programme: Installed over 2 days

Turnaround: Commissioned within the week

A fast-track retrofit solution designed to add efficient underfloor heating without a heavy floor build-up. The Tekwarm Micro mat created a secure, low profile pipework carrier over the timber substrate, while Tekcem 550 Fibre provided the fibre-reinforced levelling layer required to encapsulate the system and deliver a smooth, robust surface ready for final floor finishes.

The brief

The client required a low profile underfloor heating build-up for a residential project in Huddersfield. The existing floor construction meant the system needed to perform over a timber substrate, keep the floor height under control and provide a quick response heating solution for the newly refurbished living space.

Programme was also critical. The installation needed to be completed quickly, with minimal disruption and a clear route to commissioning within the same week. In plain English: no drawn-out site saga, no unnecessary floor height drama.

Low profile build-up

The heating system needed to sit within a slim floor construction while still allowing suitable screed encapsulation above the pipework.

Timber substrate

The substrate required a system that could be securely installed and then receive a compatible levelling screed layer.

Fast turnaround

The whole package had to support a rapid installation programme and allow commissioning within the week.

The system specified

Tekwarm Micro was selected as the underfloor heating platform because it combines a low profile castellated mat with close pipe spacing options and a fast response floor build-up. The mat provides pipe retention, installation consistency and an open base that helps the levelling screed engage through the system rather than simply sitting on top of it.

Tekcem 550 Fibre was used as the levelling screed to encapsulate the pipework and provide a smooth, durable surface. The fibre reinforcement makes it suitable for thin section levelling applications where dimensional stability and surface integrity matter.

Tekwarm Micro - key technical points

- Low profile UFH mat system
- Suitable for 10 mm and 12 mm pipework
- Pipe spacing options: 50, 100, 150 and 200 mm
- Effective panel size: 1115 x 715 mm
- Effective area: approx. 0.79 m² per mat
- Open base design to support bond through the system

Tekcem 550 Fibre - role in the build-up

- Fibre-reinforced levelling screed
- Used to encapsulate the UFH pipework
- Creates a smooth surface for floor finish preparation
- Suited to fast-track renovation environments
- Supports a robust, low mass heating build-up

Installation approach

The installation followed a practical two-stage process: secure the Tekwarm Micro system over the prepared timber substrate, install the pipework to the designed layout, then apply Tekcem 550 Fibre to encapsulate the pipework and produce the finished levelling layer.

1. Substrate review and preparation

The timber substrate was reviewed for suitability, cleanliness, stability and fixing before the UFH system was installed. A low profile system is only as good as what it is bonded or fixed to - the floor below still has to do its job.

2. Tekwarm Micro mat installation

The Micro mats were installed to create the pipework carrier across the heated floor area, with the layout arranged around the kitchen, living space and service points.

3. Pipework layout and connection

Pipework was installed in the Micro mat to the designed pattern, giving consistent spacing and coverage across the heated zones.

4. Tekcem 550 Fibre application

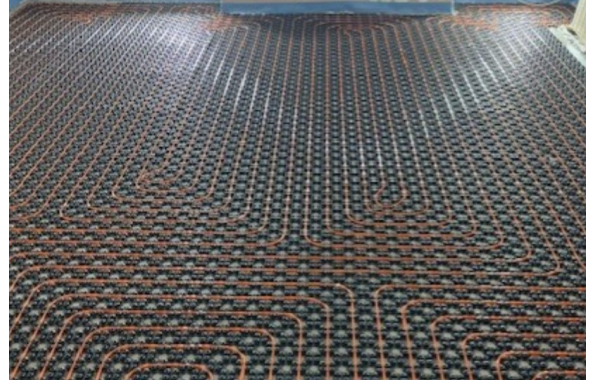
Tekcem 550 Fibre was mixed and applied over the system, flowing around the castellations and pipework to form a level, fibre-reinforced screed layer.

5. Early commissioning route

The completed system was protected, allowed to cure and then commissioned within the week, giving the project a genuine fast turnaround route from install to operational heating.

Installation gallery

The images below show the Tekwarm Micro mat and pipework installation, followed by the Tekcem 550 Fibre levelling screed being applied and finished across the refurbished floor area.



Outcome

The finished floor shows the benefit of a joined-up low profile UFH specification. Tekwarm Micro provided the pipework platform and fast response heating layer, while Tekcem 550 Fibre created the level, smooth surface over the system. The scheme was installed over two days and commissioned within the week, giving the client a rapid route from exposed timber substrate to an operational underfloor heating system.



Why this matters

Low floor height

Useful where existing floor levels, thresholds and doors limit the available build-up.

Fast response

A low mass heating layer responds quicker than traditional deep screed systems.

Designed coverage

Pipe spacing options allow the system to be configured around room layout and heat output requirements.

Clean finish

Tekcem 550 Fibre creates a level surface for floor finish preparation.

Retrofit friendly

Suited to refurbishment projects where disruption and programme need to be controlled.

Joined-up supply

UFH system and levelling screed specified as one coordinated floor solution.

Technical note

Final heating outputs, manifold settings and controls should be confirmed by the UFH system designer. Substrate suitability, fixing, priming and floor finish preparation should be checked against Tekwarm and Tekcem technical guidance.

For Tekwarm Micro UFH specifications, design support and levelling screed advice, contact TekGroup: 01709 261 007 | pricing@thetekgroup.co.uk