LOW PROFILE

EGGCRATE

INSTALLATION GUIDE

Introduction

Fastwarm Low Profile egg crate panels utilise a sticky backing with a peel off plastic sheet adding to the ease of installation. These panels are designed to overlap with the adjacent panels forming a stable pipe fixing system. The Fastwarm Low Profile egg crate allow levelling compound to fully bond to the panel as well as the structural substrate floor.

Insulation

Provided by others- In accordance with Part 'L' of the current Building Regulations, a suitable layer of insulation material should be included within the floor construction. It is the responsibility of the Architect or Builder to ensure compliance. However; in all instances insulation must be installed beneath the underfloor heating system in order to ensure that any downward heat loss does not eKceed lOW/m', in accordance with BS EN 1264.

PIPE OPTIONS
Fastwarm 12mm Pex/AL/Pex

BOARD DIMENSIONS
1050mm x 650mm x 16mm (L x W x D)

IMPORTANT!

The Underfloor heating system should NOT be brought into service for at least 21 days.
After this time the water temperature should be brought up gradually by 5°C per day to the maximum working temperature (normally 45°C, internal pipe temp). If you are in any doubt about any part of the installation process, then call us for advice on 01268 744479.

INSTALLATION GUIDE

EGGCRATE

fastwarm®

Step 1	Where possible fit additional insulation beneath subfloor. If a timber subfloor this can be fitted between the joists, if concrete subfloor you can use Fastwarm Tile Backer Insulation boards. For further advice speak to our technical team on 01268 744479
Step 2	Ensure the subfloor is flat and level and has appropriate Damp Proofing below before installation this product. If it has no DPM then apply a liquid DPM to the floor. If the floor is not flat or level, then level the floor first to get it within a 2-3mm tolerance. If the floor is 5-10mm out from one side of the room to the other, the area of the room where the pipes will be sitting lower in the floor will always be cooler than the other areas. So for an even heat please level the floor first. If levelling onto a timber subfloor, ensure you have filled any gaps in the floorboards and around the perimeter of the room to prevent the levelling.
Step 3	Ensure the floor is clean and dust free, then fix the foam edging insulation around the perimeter and seal any holes that may allow levelling compound to leak into.
Step 4	Prime the subfloor with the Ultra Prime IT MSP, please follow the manufacturing guidelines for dilution amounts depending on the subfloor type.
Step 5	Once primer has dried start by laying the egg crate panels onto the floor peeling off the plastic sheet as you go so that they stick firmly to the floor. Please ensure that the panels overlap one another on the appropriate sides. You will notice on the panel, two of the sides have smaller nodules, these are designed to go underneath the next adjacent panels and push together.
Step 6	Once the panels have been laid, install the underfloor heating pipework, Fastwarm12mm pipe should be laid at 150mm centres (unless designed otherwise), and connect to the manifold.
Step 7	At this stage you have the option to fit a floor sensor, these should be fitted if you are having a temperature sensitive floor finish such as Vinyl, Engineered wood or laminate, but are not required for tiles.
Step 8	Fill the pipework and pressure test to ensure that there are no leaks in the system.
Step 9	Leave under pressure at 4 bar whilst you pour the levelling compound on top. The levelling compound should be installed at a total thickness of 20mm (this includes the panel and the UFH pipework within this) meaning that it will sit at least 4mm higher than the panel, making it a suitable surface for tiling. For vinyl and carpet, you should allow for 24mm depth of levelling compound for additional spread of heat.
Step 10	Remove the pressure from the system when the levelling compound has hardened.
Step 11	Allow 2 weeks after the floor covering has been laid before turning the heating system on, please refer to Fastwarm installation steps.

INSTALLATION GUIDE

EGGCRATE

FLUSHING THE SYSTEM

1. Once all of the circuits have been completed, and all connections are tight, connect a suitable hose to the upper and lower drain valve on the right hand side of the flow and return manifold.
2. Connect the lower drain valve to the cold water fill. Ensure both the red and blue isolators are closed and all flow meters and the white lock shields are closed. Working from the left, open up the flow meter and corresponding lock shield valve for the first circuit. With all of the remaining circuits closed, open up both drain valves. You are now ready to flush out the first loop. Visually check the water coming out of the hose into a suitable drain. Ensure the water flows freely without any bubbles.
3. Repeat the process on the remaining circuits. **IMPORTANT!** When each loop has been flushed correctly, ensure that both the lock shield and the flow meter are closed. When flushing the underfloor heating system, only 1 loop at a time should be open.

PRESSURISE THE SYSTEM

Once all of the loops are flushed and air has been removed, the system must be pressurised to a minimum of 6 bar; using a suitable pressure tester such as a Rothenburger. Open all of the circuit lock shields, along with their subsequent flow valves, and close off the upper drain valve on the right hand side of the manifold. Connect the pressure tester to the lower valve, and raise the pressure to minimum of 6 bar.

TESTING PERIOD

We recommend holding the system at 6 bar pressure for 1 hour. The pressure gauge may drop even though there are no leaks This is due to the temperature change of the water. Generally in 1 hour you will recognise a leak. **IMPORTANT** make sure a suitably responsible person witnesses the pressure test, and signs to say the test was successful. Make sure you carry out a thorough visual inspection of all the pipework before you leave site.

FLOOR COVERINGS

Levelled floors can be covered with a multitude of finishes. Please ensure that the subfloor is prep to flooring manufactures guidelines.

Ceramic tiles, Slate, Stone etc

Tile/Stone finished floor coverings can be laid directly on to the levelling compound. The floor must first be primed using Prime IT MSP. The tiles can then be secured on top using a suitable flexible tile adhesive.

Engineered Laminate

Engineered hardwood floors can be applied direct to the levelled floor, Care needs to be taken when selecting the thickness of the engineered wood floor. as the thicker the board, the lower the available heat output. Best practice would see a low tog underlay fitted to levelled floor before wood floors are laid. Maximum 1 tog dependent of depth of wood floor finish.

Carpet & Underlay

Fastwarm recommend when laying a Carpet that both underlay and carpet combined does not exceed 2.5 tog. Please ensure when using these floor coverings a 24mm bed of leveller is used this will equate to 8mm above the egg crate, Using one of these two methods will improve the efficiency of the underfloor heating system.

Linoleum & Vinyl

When applying a lino and vinyl finish to subfloor, a completely flat surface is required. Please ensure when using these floor coverings a 24mm bed of leveller is used this will equate to 8mm above the egg crate, Using one of these two methods will improve the efficiency of the underfloor heating system.

Please confirm with the floor covering manufacturer that it is suitable for underfloor heating. BS EN 1264 advises that, in occupied areas the floor temperature MUST not exceed 29°C, however; it also states that, when using timber floor coverings then ensure that this surface temperature does not exceed 27°C.