

The logo for duo. features the word "duo." in a bold, lowercase, sans-serif font. The "o" is followed by a small orange dot.

by **fastwarm**®

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# DUAL PURPOSE OVERLAY PANELS

INSTALLATION GUIDE AND TECHNICAL INFORMATION

THICKNESS AVAILABLE

12MM

16MM

**The Fastwarm® Duo Panels are dual purpose, meaning that they can be used both underneath tiles and under floating floors such as Engineered and Laminate flooring. There are two different installation methods that must be adhered to for each flooring.**

The panels are constructed of EPS 400 superior grade polystyrene and have a 200 micron foil covering to ensure the best possible output.

Please read through this manual thoroughly and if you have any questions please contact our technical support team on 01268 744479.

The following guidance notes should be used along with the individual manufacturer's technical datasheets and documents for specific products selected.

Ensure the subfloor is suitably strong, stable and flat enough to receive this flooring system.



**Substrate preparation as per manufacturers guidance is always recommended as floor substrates and structures vary in requirements.**

This document cannot cover all possible scenarios. The preparation must make the subfloor suitable to these boards for either a flexible cementitious tile adhesive prior to tiling on top, or flat enough to lay the panels down prior to receiving a floating floor such as an engineered wood or Laminate boards.

## Suitable Timber Substrates include

- ✓ For a floating floor installation you will need to ensure the floor is flat and free from movement prior to laying the panels.
- ✓ For tiled or levelling compound installations you should install a structural plywood for new floors or for existing floors you may need to overlay these with a suitable thickness of plywood or cement boards, which should be fully screw down at 150mm intervals.

## Suitable Solid Substrates include

- ✓ Fully cured concrete that must be at least six weeks old and thoroughly dry.
- ✓ Solid screeds that have fully cured in relation to thickness as per manufacturers guidelines.
- ✓ For floating floor installation these should be flat, if they are not a suitable self levelling compound should be used before laying the panel on top.
- ✓ For tiled or levelling compound installations you will need to ensure the subfloor is suitably primed. For any substrates, such as power floated concrete, calcium sulphate screeds, or anything not listed above please seek manufacturers advice as to priming recommendations.

# INSTALLATION FLOATING FLOORS



This method is suitable for floor coverings such as engineered wood, laminate flooring or Heat Pak Dual Overlay when using Vinyl or Carpet. Please consult our technical department if unsure on 01268 744479.

## Step 1

Remove all contaminants, dirt, grease etc. from the substrate and make dust free.

## Step 2

If supplied with a pipe layout diagram make a note of how to position the boards.

## Step 3

Lay the boards across the floor with the grooves facing upwards, making sure the pipework runs are calculated correctly to reach manifold position.

## Step 4

You may be required to modify the heating panel to navigate around permanent fixtures. If you find you need to create a new channel then this can be done with a knife or router.

## Step 5

When creating additional bends ensure that the curve radius is such that it doesn't cause excessive bending or kinking.

## Step 6

It is recommended to use a foil tape between the panels to help hold the panels in place and to reduce any air flow between the subfloor and the floor finish.

## Step 7

While laying the boards and pipe it will be necessary to walk across them. Using crawl boards will reduce the impact this has in high foot traffic areas.

## Step 8

Ideally the pipe should be unrolled using a de-coiler or in the horizontal position to allow for ease of laying the pipe (This will stop the pipe trying to spring out of the boards at the end of the panels).

## Step 9

Allow the floorboards to acclimatise to the indoor room temperature for at least 24 hours as they may swell or shrink depending on the climate.

## Step 10

Lease install a suitable LOW-TOG or Perforated underlay on top of the Fastwarm® Duo panels before laying the engineered or laminate floor finish.

## Step 11

Ensure that when installing floorboards they are positioned at a 90° angle to the pipe direction.

## Step 12

Upon completion of the underfloor heating pipe circuits - ensure all pipe work is pressured tested (conforming to BS EN 1264). The mixing valve temperature should not be set above 55 degrees Celsius for floating floor or solid floor systems.

### Suitable Floor Finishes:

✓ ENGINEERED WOODEN FLOORS    ✓ LAMINATE FLOORING    ✓ HEAT PAK DUAL OVERLAY

Please ensure that the maximum temperature of the floor does not exceed manufacturers stated temperatures. Most manufacturers of engineered wood or laminate floors state that a maximum floor temperature of 27degrees Celsius must be maintained. In well insulated property if a room temperature of 21degrees is set the floor will not go above 27degrees before the room temperature is satisfied. However if a warmer room temperature is required or the insulative state of the property is poor a floor sensor may need to be installed in order to protect the wooden flooring.

# INSTALLATION BONDED FLOORS



NOTE: PLEASE Ensure that if applying tile adhesive or levelling compound on top of Fastwarm® Duo panels, you must cut through the spare foil covered channels to open the void. This will ensure the adhesive or levelling compound can fully fill the channel to prevent weak points across the floor.

## Step 1

Remove all contaminants, dirt, grease etc. from the substrate and make dust free.

## Step 2

If supplied with a pipe layout diagram make a note of how to position the boards.

## Step 3

Loose lay the boards across the floor and number the boards on the upper face to identify position of each board, making sure the pipework runs are calculated correctly to reach manifold position.

## Step 4

Uplift the numbered boards and prime the underside of the boards with a neat coat Ultra Floor Prime-IT MSP bonding primer. This should be applied by brush or roller. Allow to thoroughly dry ensuring primed face does not come into contact with other boards, walls or subfloor until it is ready to be bedded.

## Step 5

Drying time will depend upon ambient conditions but is typically between 1 and 4 hours.

## Step 6

Whilst the primer on the boards is drying commence with priming of the substrate using UltraFloor Prime-IT MSP. The primer should be diluted 3 parts water to 1 part primer and allowed to fully dry.

## Step 7 (Tiled Floors)

Apply UltraTile Proflex S2 adhesive to the subfloor using a notched trowel to give a minimum 3mm adhesive bed. Laying the boards as you go (The depth of the adhesive bed may need to increase if the substrate is not sufficiently level. Additional levelling compound may be needed if areas are any deeper than 2-3mm).

## Step 7 (Levelled Floors)

Apply Fastwarm FastFlex adhesive to the Subfloor with an 8mm to 10mm square notch trowel using the back butter method. (The depth of the adhesive bed may need to increase if the substrate is not sufficiently level. Additional levelling compound may be needed if areas are any deeper than 2-3mm).

## Step 8

Bed the boards, primed side down, into the adhesive and ensure compression of adhesive ridges, ensure full compression of the adhesive to give a void free full adhesive bed.

## Step 9

Allow adhesive cure for approximately 4 hours (depending on temperature) to ensure the adhesive has gone through its initial set before carrying out any further works.

## Step 10

It is recommended to use a mesh tape between the panels to help bridge panel joints and aid with movement into the floor finish.

## Step 11

Additional use of Fastwarm Fixing pack (screws and washers) is recommended over timber substrates where needed, fixed at every 300mm.

## Step 12

Ensure your floor is free from any debris before installing the pipe. It is important to check in all the grooves as the pipes could be damaged during installation if there are any obstructions.

# INSTALLATION

## BONDED FLOORS Cont.



### Step 13

Pipe work may be fitted into the boards once they are all secure. Where possible this is best left for 24 hours. It is recommended that the pipe system is checked for leaks and correct water pressures prior to tiling over.

### Step 14

While laying the boards and pipe it will be necessary to walk across them. Using crawl boards will reduce the impact this has in high foot traffic areas.

### Step 15

Ideally the pipe should be unrolled using a de-coiler or in the horizontal position to allow for ease of laying the pipe (This will stop the pipe trying to spring out of the boards at the end of the panels).

### Step 16

Prime the upper face of the boards with a neat coating of Ultra Prime-IT MSP bonding primer. This should be applied by brush or roller in a thin film. Allow to thoroughly dry to a clear green film, (approx 1-4 hours).

### You now have 2 options

You can either tile directly on top of the panels using a Class II adhesive or install a latex levelling compound prior to laying the tile adhesive/ floor covering.

Tiling directly on top can save on total floor build up height but using a levelling compound will ensure that the pipework is not damaged during the tiling process, however either way works.

## USING A LEVELLING COMPOUND

### Step 1

Apply Fastwarm FastFlow Levelling compound over entire floor area, making sure all voids and gaps are completely filled, the levelling compound should encapsulate the whole floor and cover the board with a 5mm layer on top (if tiling). If fitting Vinyl this must be a minimum depth of 10mm.

### Step 2

Allow to cure for a minimum of 24 hours prior to carrying out any tiling. Cold and/ or humid atmospheres will delay the curing of FastFlow Levelling so allowances should be made accordingly. Check product specification for more details.

### Step 3

Prime the cured Floor Prime-IT MSP diluted with 3 parts water to 1 part primer. Allow to thoroughly dry.

### Step 4

Fix the tiles using Fastwarm FastFlex adhesive. Ensure full compression of the adhesive to give a void free full adhesive bed. Allow the adhesive to cure for a minimum of 4 hours (depending on temperature) to ensure the adhesive has gone through its initial set before carrying out any further works.

### Step 5

Grout the tiles using Flexible Joint grout. Allow to fully cure before any foot traffic resumes in this area.

### Step 6

Drying time will depend upon ambient conditions but is typically between 1 and 4 hours.

# USING TILE ADHESIVE ON SOLID FLOOR PANELS DIRECTLY



## Step 1

Fix the tiles using UltraTile ProFlex S2 adhesive. Ensure that every pipe channel and void surrounding the pipe is fully encapsulated with tile adhesive.

## Step 2

When laying the tiles ensure full compression of the adhesive to give a void free full adhesive bed. Allow the adhesive to cure for a minimum of 24 hours (temperature dependent) before grouting.

## Step 3

Grout the tiles using Flexible Joint grout. Allow to fully cure before any foot traffic resumes in this area.

## Important

**The Underfloor heating system should NOT be brought into service for at least 14 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 temperature).

If you are in any doubt about any part of the installation process, then call us for advice on 01268 744479.

## Thickness of levelling compound required

FLOOR FINISH	MINIMUM THICKNESS (mm)
Tiles / Natural Stone	6mm
Vinyl (Amtico, Karndean etc...)	10mm
Engineered wood or Laminate (Bonded down)	10mm
Carpet (Keep TOG value below 2.5 inc underlay)	10mm
Other	Speak to Fastwarm® Technical on 01268 744479