

# thermofloor

## Overview

The process involved in installing the ThermoFloor panels is similar to that of hollow core slabs. The ThermoFloor elements are placed in position and propped before walking on, and before installation of steel, to ensure safety. The specified reinforcing steel is laid in position, a course of TH 21's are laid around the floor edge and adequately supported for the concrete installation. The specified concrete screed is then poured to complete the structure.

## Step 1

Protect the top surface of the walls directly below the intended floor. It is recommended that the top of the Thermohouse ICF wall blocks at ceiling level are taped or covered for protection from concrete spillage when pouring the wall structure as this will protect the top surface for connection of TH21's rising to the floor level pour (step 3).

## Step 2

Install the support planks for the ThermoFloor panels. It is recommended that the support planks are a minimum of 150mm x 75mm and the support acrows are placed at a maximum of 2M centres. It is necessary to have the support system verified by the supervising engineer. All supports must be double checked as being fit for purpose before continuing to work on the ThermoFloor panels.

Please note: If the ThermoFloor panels are being used as a suspended floor at ground floor level, ground conditions must be checked that they provide adequate support to the propping of the panels.

(Figure 1)

*This is a short overview of the floor construction. For further information, details and diagrams please consult the Thermohouse Technical Manual.*



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### Step 3

Lay a course of TH21 blocks on the top course outer layer. This top course of blockwork will require special attention to propping/casing since they are not locked to an internal face.

### Step 4

The ThermoFloor panels span from wall to opposite wall. The ThermoFloor panels are placed on the Internal edge of the ThermoWall blocks. As the ThermoFloor panels are laid, they connect with each other on their lateral edge which has a tongue and groove joint.

(Figure 2)

### Step 5

Steel rebar and link are connected to form beams. The steel beams are placed in the wall core that the lateral edge of the panel is resting on, as well as in between each panel. As the ThermoFloor panels can span up to 8m and support different loads, therefore the required steel reinforcement adjusts accordingly.

(Figure 3)

### Step 6

A layer of reinforcement mesh is placed on top of the floor panels and tied to the steel beams below.

( Figure 3)

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## Optional

Underfloor heating can be installed on top the Thermofloor panels before the concrete pour if required. The heating pipes can be pinned to the panels or tied to the reinforcement mesh.

## Step 7

Pour 90-100mm of concrete screed on top of the floor panels and the wall core. The concrete then ties the wall and floor together.

(Figure 4)

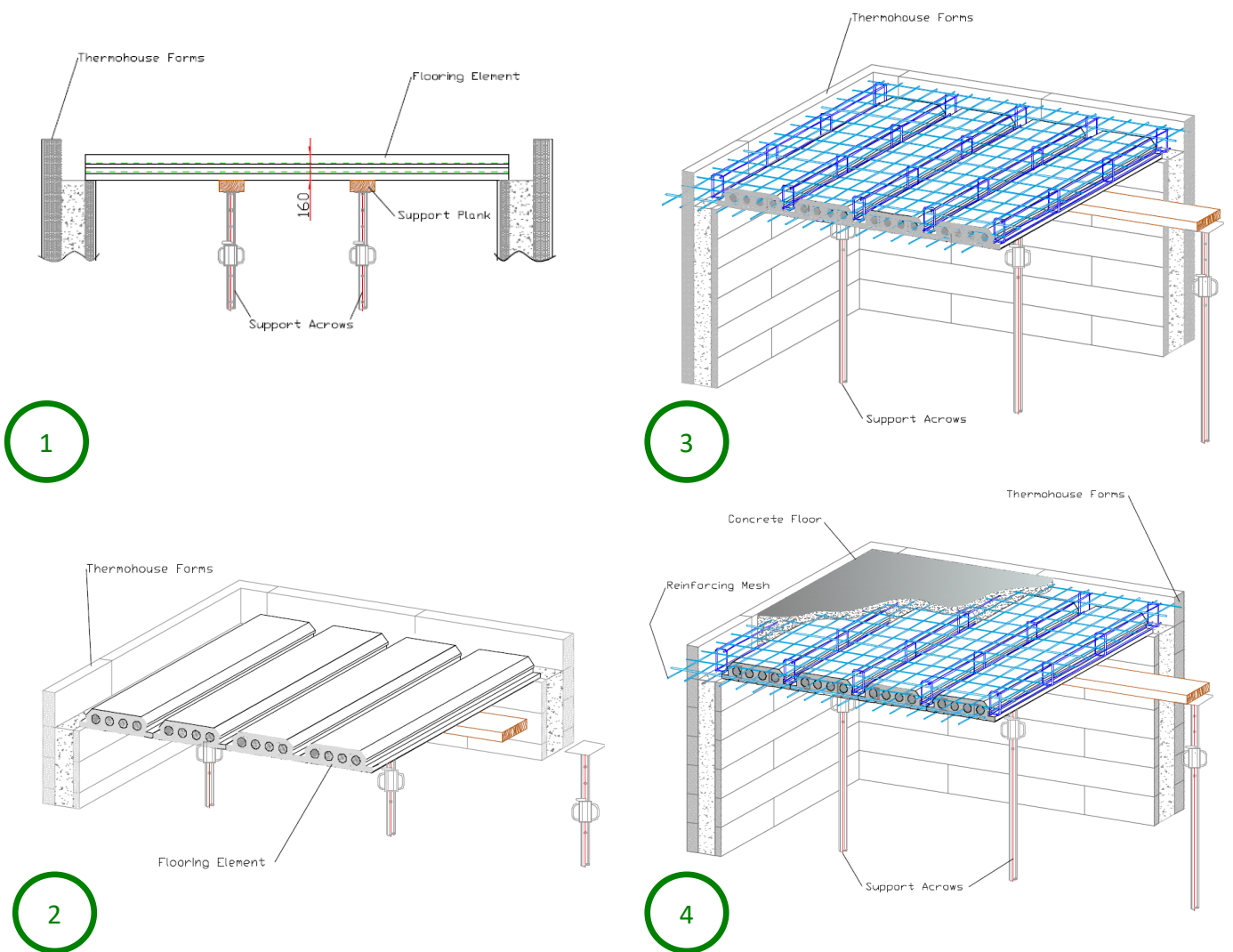
If required and once the concrete has cured, it is possible to remove some of the EPS in the ThermoFloor panel to insert services.

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Figures 1-4



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