

Thermio+ Screed Floor Preparation

****IT IS EXTREMELY IMPORTANT TO ENSURE THAT THE PREPARATION IS CARRIED OUT COMPETENTLY AS THIS WILL ALLOW AN EASY AND WELL FINISHED SCREED INSTALLATION****

PREPARATION

Sub-Floor Preparation

Floor preparation is the single most important factor for ensuring a smooth finish to your floor area. Make sure there are no bumps, dips, inclines or uneven surfaces to the surface of the sub-floor, we cannot ensure a smooth end result if the work surface is not properly prepared.

- Scrape off any debris or mortar splashes from the sub-floor. (see fig.1)
- Brush the sub floor, leaving a flat clean surface, on which to place the insulation. (see fig.2)
- Remove all dust and debris ensuring any items which may puncture the surface membrane or resilient layers have been removed to leave a substrate free from contamination.



fig. 1



fig. 2

Where applicable a suitable damp proof membrane must be present below or above the sub-floor base before laying insulation.

- Note:
- (i) Damp substrates such as concrete bases can result in considerable delays/extension of screed drying time.
 - (ii) High sub-base moisture content (>75%) will necessitate the use of the appropriate damp proof membrane.

Installing Insulation

To provide a suitable grounding for fixing the underfloor heating pipes, the recommended insulation to be installed should be a rigid flooring grade board and have a minimum compressive strength of 180kPa (typically Extruded Polystyrene XPS or Polyisocyanurate PIR boards - generally not Polyurethane PUR). This is highly important when using a pouring screed with underfloor heating.

If applicable, all services, waste pipes etc. should be installed prior to laying insulation. In this instance, the insulation should be laid in two layers, with the depth of the first (bottom) layer of insulation being equal to or greater than the diameter of the service pipes - this will allow a level surface to accept the second layer of insulation (see fig.3). Fill any voids around the service pipes with sand and level off with the first layer of insulation. The second layer of insulation is laid over at 90° ensuring a level surface and preventing any rocking (see fig.4). All insulation should be laid with tight butt joints and in brick bond pattern.



fig. 3

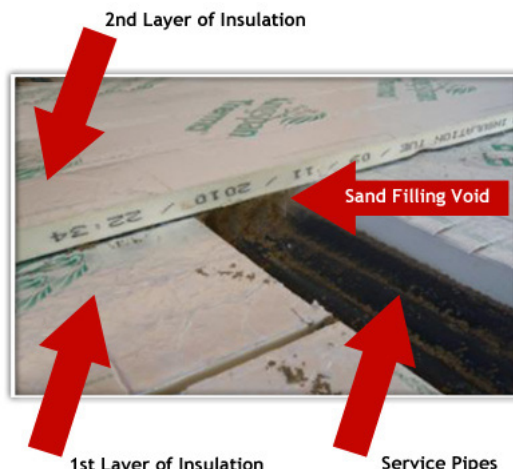


fig. 4

Shuttering & Control Joints

Any areas in the floor which are not to receive the Thermio+ screed (i.e. fireplace, wet room shower areas, ramps, matwells etc) must be shuttered - this can be done using timber. Please ensure that the height of the shutter is minimum 100mm. In addition, control joints must be installed in the following areas, failure to do so could lead to reflected cracking (see fig.5):

- Door thresholds
- Any area where the aspect ratio is greater than 1:6 (i.e. corridors)
- Any bay size greater than 300m²
- Any bay length greater than 20m
- Where a structural joint is present in the sub-base

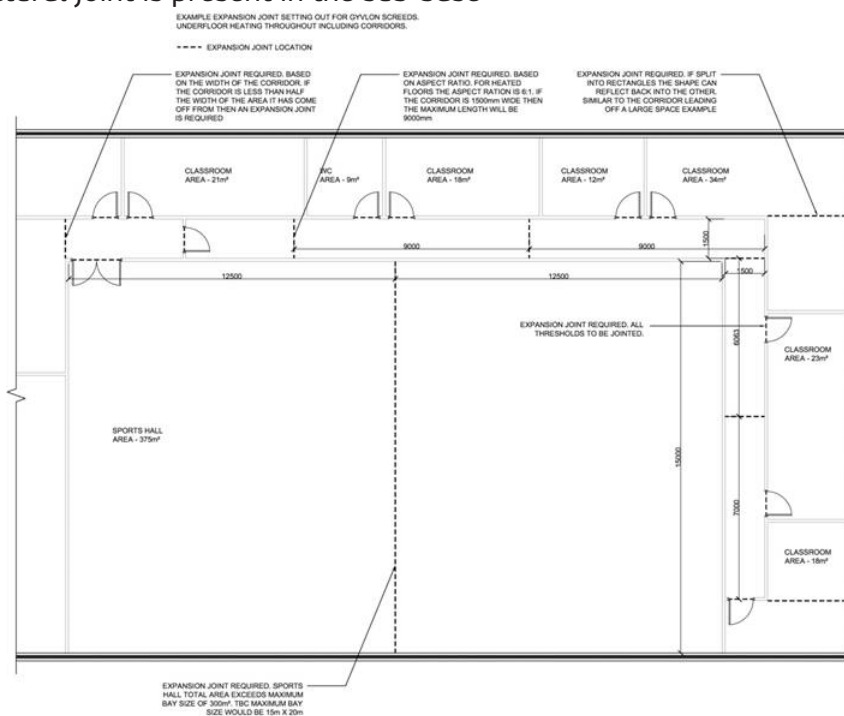


fig. 5

Installing Separating Membrane

A minimum 500 gauge membrane cover the insulation making sure to lap up the perimeter walls a minimum of 150mm - this must be securely tacked or taped in place. Take care to fold the membrane tight into in the corners leaving no holes and fix in position. Push membrane into the floor/wall seam so it forms a tight right angle. Any joints must be overlapped a minimum of 100mm and fully taped as in fig. 6 (do not use foil tape). The membrane should also lap up any vertical penetrations or surfaces in the floor area (i.e. waste pipes, service pipes, stairs, shuttered areas etc.) The membrane must be installed taut without any creases or folds. A thicker folded membrane should not be used as the underfloor heating pipe staples will not penetrate the membrane, the folds in the membrane can induce cracking as they stand proud and will not lay flat. A final check that all joints/gaps are taped and sealed to prevent any ingress of screed below the membrane. In addition, all air pockets or voids must be removed. For Thermio+ screed the membrane layer has to be sealed completely water tight, especially when using foil faced insulation as this will prevent gassing.



fig. 6

Installing Perimeter Insulation/Expansion Strip

Perimeter insulation (8-10mm thick) is installed around the perimeter of each area to receive Thermio+ screed. In addition, any vertical penetrations or surfaces in the floor area should also receive perimeter insulation. This provides suitable expansion for the screed and also prevents any cold bridging. The edge insulation should be installed flat against the wall/vertical surface, with the bottom edge flush with the floor/wall seam. There is an adhesive strip on the back of the insulation roll which can be used to stick insulation to the membrane. Make sure that the strip is pushed into corners and lays flat against the walls so as to get a perfect joint on the floor/wall seam with no holes or unsightly gaps - any joints should be taped (see fig.7). The perimeter insulation roll comes fitted with a polythene skirt; this must tucked in neatly to the floor/wall seam and taped securely down (see fig.8).



fig. 7



fig. 8

Underfloor Heating Installation

The underfloor heating pipework is now installed as per our instruction and installation drawings. The pipework is fixed down using self-adhesive fixing rails and plastic staples. We will provide sufficient fixings to allow the pipework to be clipped every 400mm. Once the pipework has been installed, the system should be filled with a water/inhibitor mix and pressure tested to 3-4 bar. This system must maintain pressure for a minimum of 24 hours before any screed is poured (see fig.9)



fig. 9

Prior To Commencement Of Screeding

The building should be weather tight prior to commencement. The roof should be covered and all external doors and windows in place. Alternatively all openings are to be made weather proof with clear polythene. Remove all dust and debris from the floor surface and leave free from contamination. Otherwise loose debris pieces will rise to the top of the finished floor during pouring, resulting in a sub-standard finish.

IMPORTANT: THE FLOOR MUST BE DRY AND NO WATER SHOULD BE PRESENT PRIOR TO SCREEDING

General Information

When undertaking any floor preparation works it is important to use the correct materials to achieve the desired finish, using materials that are not designed for can lead to problems.

The following materials as used in the above pictures:

- 500 gauge membrane
- Perimeter edging strip
- Flooring Sealing tapes (non-foil)

All the products used can be supplied by Optimum UFH Ltd if you require additional help please feel free to contact us on the number listed on this information sheet where one of our team will talk you through the process.

We can also provide a quotation for carrying out the above floor preparation. Please contact our office for further details.



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