

# Floor Insulation

# Installation Guide - Above Ground Slab

### **Damp Proofing**

The concrete must be level and even. A tamped concrete surface is suitable for placing floor insulation.

The DPM is laid over the concrete slab with all joints lapped and sealed. The membrane is lapped over the DPC to create a continuous water barrier.

#### **EPS Insulation**

The EPS insulation is laid over the DPM, tightly butting each board together, ensuring there are no gaps.

The boards are easily cut with a fine toothed saw to fit the space required.

The vapour control layer (minimum 500g polythene sheet) is placed over the insulation boards with all joints lapped and sealed. The membrane should be dressed vertically over the floor edge insulation.



#### **Chipboard Finish**

Installation and choice of timber flooring should be in accordance with BS EN 312.

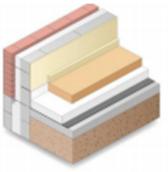
The chipboard or other wood particle boards with tongued and grooved edges are loose laid over the VCL. They should be laid with joints staggered and all edges glued.

A 12mm gap must be provided around the perimeter of the floor to allow the timber boarding to expand after installation. Where boards exceed a 10m run additional 20mm expansion gaps should be provided, timber battens should be placed to support the board edges at expansion gaps.

## Pipes and Services

Underfloor heating pipes may be clipped directly onto the insulation. Other hot water pipes should be isolated from the insulation by 12mm as they may exceed the maximum working temperature of the insulation at 80°C.

PVC sheathed electric cables should not be allowed direct contact with the EPS. They may be placed over the VCL membrane or installed in PVC conduit.



#### Screed Finish

The sand and cement screed should be installed at least 65mm thick in domestic floors and 75mm in nondomestic.

When placing pipes over the insulation a minimum screed cover of 25mm must be provided over the pipes to prevent local cracking.

Full details on the installation and design of concrete floor screeds can be found in BS 8204.

Underfloor heating pipes may be clipped directly onto the insulation. Other hot water pipes should be isolated from the insulation by 12mm as they may exceed the maximum working temperature of the insulation at 80°C.

A minimum 30mm thick EPS sheet is installed vertically to all external edges of the floor. This must overlap the wall insulation by at least 150mm to prevent cold bridging.

The vapour control layer (minimum 500g polythene sheet) is placed over the insulation boards with all joints lapped and sealed. The membrane should be dressed vertically over the floor edge insulation.

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