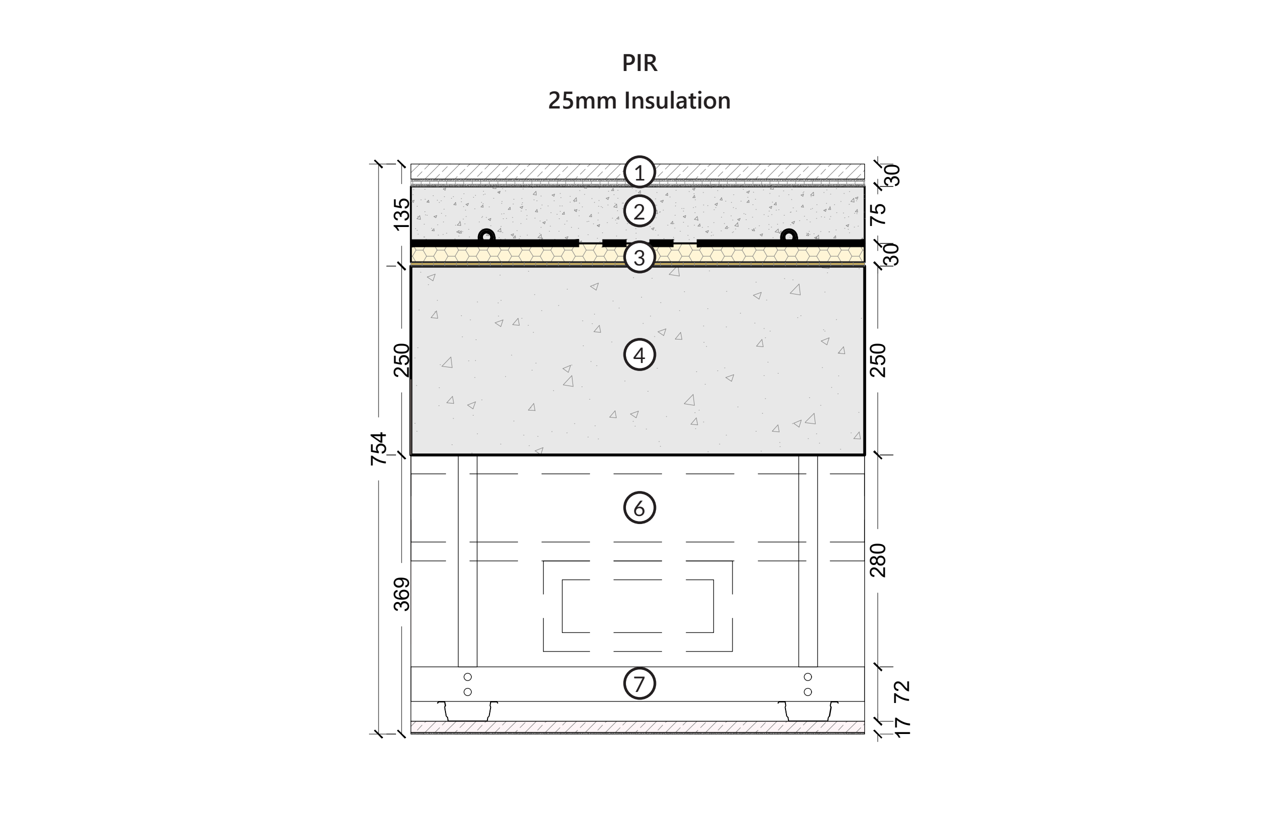
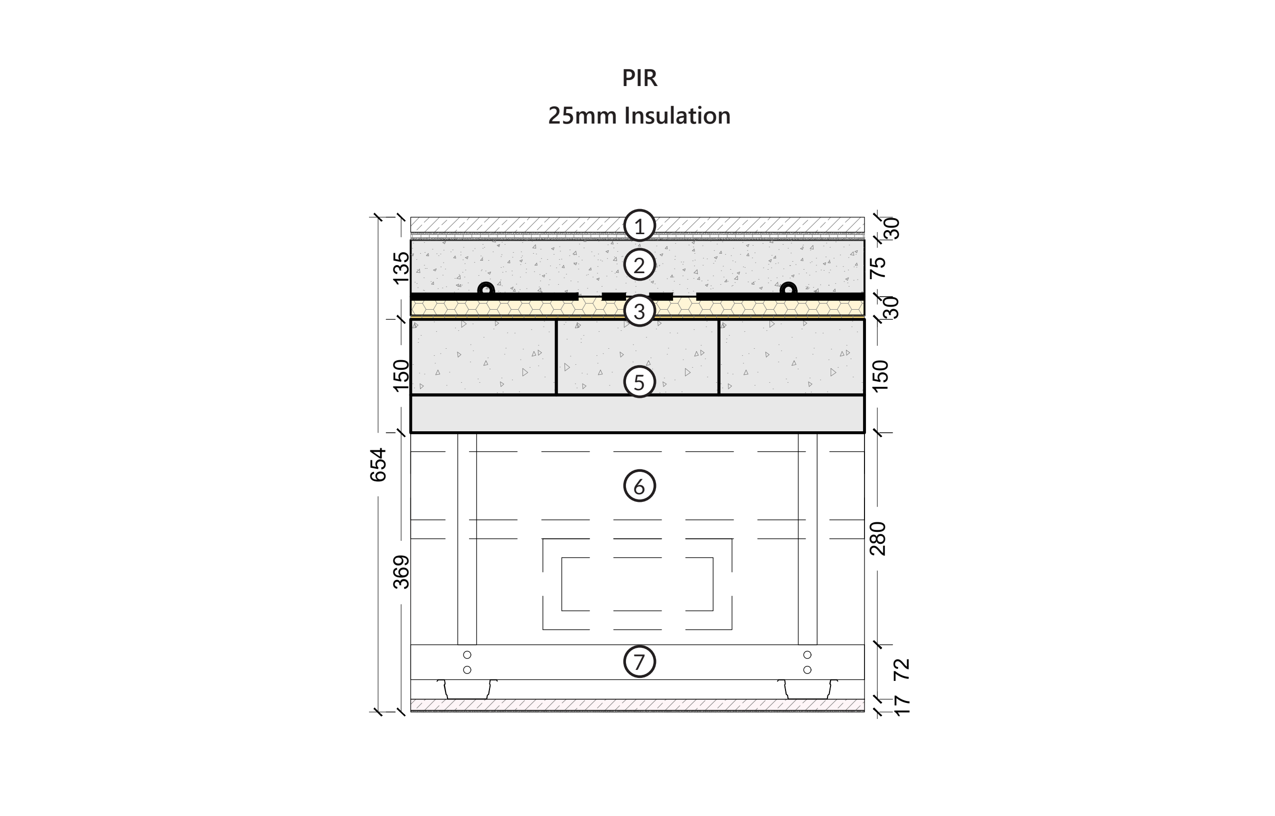
### Typical Residential RC Concrete Floors

Airborne Sound is 45 Decibels or Above / Impact Sound is 62 Decibels or Below




### Typical Residential Block & Beam Floors

Airborne Sound is 45 Decibels or Above / Impact Sound is 62 Decibels or Below






# Residential Floor Build-up

## Typical Residential Floor Build-up

### 01 - Floor Finish Zone (30mm)

Timber or Tiles: Maximum 20mm Board/Tile with 10mm Adhesive & Dimtra Matt

*Solid wood flooring is not recommended for installations over UFH. Always check with manufacturer to ensure the selected Solid or Engineered Wood Flooring is approved for use over UFH. Check to see if a decoupling membrane is required as this will add 3mm within the floor finish zone.*

Carpet: Typically, 10mm Underlay / 10mm Carpet

*Combined TOG value of the carpet and underlay should not exceed 2.5 tog.*

*Underlay Layer - When installing certain flooring as floating installation, a suitable polythene slip membrane beneath is essential. Check with manufacturer of flooring.*

### 02 - Screed/UFH (60mm to 85mm Zone)

Unbonded Sand & Cement Screed - Minimum: 85mm

75mm (65mm K-Screed – potentially more expensive)
10mm structural slab building tolerances

DMP – 500 Gauge Polythene Layer
*It is recommended to include a moisture suppressant layer within the subfloor. This layer must be incorporated beneath the heat source and fully supported from beneath.*

### 03 - Insulation / Acoustic Layer (30mm)

25mm Insulation (Cellecta XFloor 250 or Similar)
5mm Acoustic Layer (Yelofon HD5 or Similar)

*Acoustic Performance - Airborne - 54dB D + C nT,w tr / Impact - 54dB LnT,w (Building Regulations + 5dB)*

### 04 - Concrete (250mm)

Range from 225mm to 275mm
*(Confirm with Structural Engineer)*

### 05 - Concrete Block & Beam (150mm)

150mm Block & Beam System
*(Length, Size & Strength to be confirmed with SE)*

### 06 - Service Void

*350mm required for Attenuator/Fan Coil Units*
*325mm - MVHR, Electrical, Water, SVP & RWP if 45 degrees bend required.*
*Stacked services can reduce zone to 280mm*

### 07 - Plasterboard (90mm)

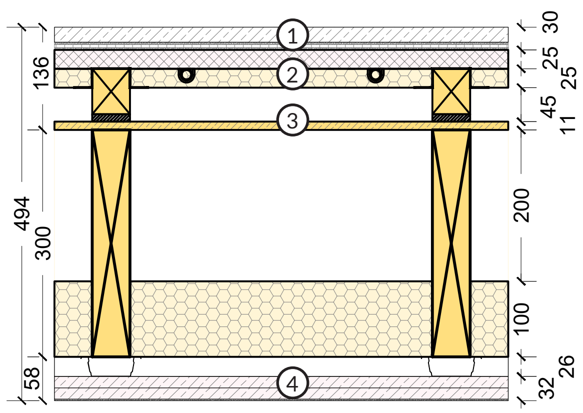
*Standard British Gypsum CasoLine MF System consists: (Approximate 90mm)*

46mm Gypframe MF7 Primary Support Channel
26mm Gypframe MF5 Ceiling Section
1x12.5mm Plasterboard
2mm Plaster Skim

### Typical Residential Timber Floors

Airborne Sound is 45 Decibels or Above / Impact Sound is 62 Decibels or Below

25mm PIR Insulation
100mm Mineral Wool



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### 02 - Acoustic System (60mm to 85mm Zone)

25mmHideck Structural 25 Board

25mm Cellecta XFLO JB-FF with UFH

70/75mm Deckfon Batten 70

### 03 - Timber Structure (60mm to 85mm Zone)

11mm OSB 3 Board

300mm Structural Timber Joist to SE Specification

*Between Joists - 450mm Centers*

100mm Rockwool Flexi Insulation

200mm Service Void

*If a larger void is required - use larger joists*

### 04 - Plasterboard

MF5 Plasterboard Ceiling Section

2x15mm Gyproc Wallboard

*2mm Plaster Skim*

## Cost Comparison

**Block & Beam - Insulation Above Slab**

- PIR Insulation - £291.20 per m2

**Block & Beam - Insulation Above Slab**

- PIR Insulation - £193.39 per m2

**Timber - Insulation Between Joists**

- PIR & Mineral Insulation - £216.36 per m2