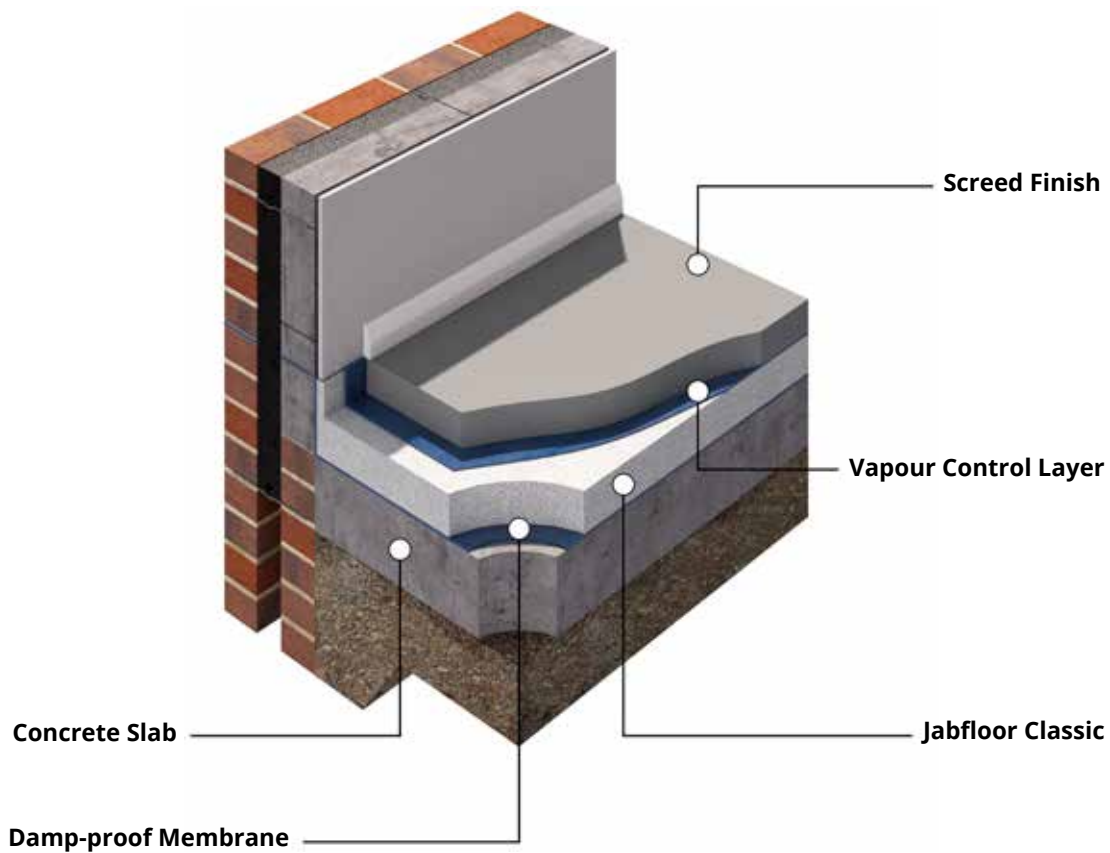


# JABLITE JABFLOOR



Jabfloor insulation can be used in all floor constructions for both domestic and commercial buildings. The application will determine the grade of Jabfloor required for your project. Jabfloor 70 is mainly used for domestic floors, whereas Jabfloor 100 is widely used for commercial floors where higher loadings are likely to be encountered.

Jabfloor is also available in higher grades up to Jabfloor 250 which may be required in certain specialist industrial and commercial applications.

Jabfloor can be placed above a concrete slab or a pre-cast concrete floor in ground-floor constructions and finished with a wearing layer of chipboard to relevant U-value requirements.

## **Easy to handle**

Jabfloor is manufactured from expanded polystyrene (EPS) which is lightweight and easy to handle on site.

## **Permanent**

Jabfloor is rot-proof and durable and will remain effective for the life of the building.

It also has the added advantage of being flood-proof.

## **Rapid construction**

No specialised trades or equipment are required.

## Versatile

Jabfloor can be used above or below the damp-proof membrane.

## Environment

Expanded polystyrene has been awarded an A+ rating by the BRE's Green Guide to Specifications

## Specification.

All-dry construction

The use of Jabfloor with a chipboard finish provides an all-dry method of construction, saving up to one week in site time compared to a wet screed.

## Type

Jabfloor is supplied as EPS 70,100, 150, 200 and 250E as defined in BS EN 13163. Flame retardant additive material is available to order (Jabfloor 70E – 200E).

## Approvals

Jabfloor 70, 100 and 150 has been assessed and approved by the British Board of Agreement for use in ground-supported and suspended concrete floors in new and existing domestic and non-domestic buildings with concrete, screed or timber finishes; Certificate number 87/1796

## Dimensions

**Standard size:** 2400 x 1200mm.

**Standard thicknesses:** 25, 40, 50, 60, 75, 100 and 120. (Other thicknesses available to order).

## Fire

Solid ground floors are not required to provide fire resistance. When properly installed, the EPS insulation is fully protected by the chipboard and will have no adverse effect on the fire performance of the floor. Euroclass E, flame retardant material, is available to order.

## U-values

The rate of heat loss through a ground floor varies with its size and shape. The thickness of insulation required to meet a given U-value will similarly depend on the size and shape of the floor. Approved Documents L1A, L1B, L2A and L2B guide you to BS EN ISO 13370 as the method for determining floor U-values based on the floor perimeter and floor area where:

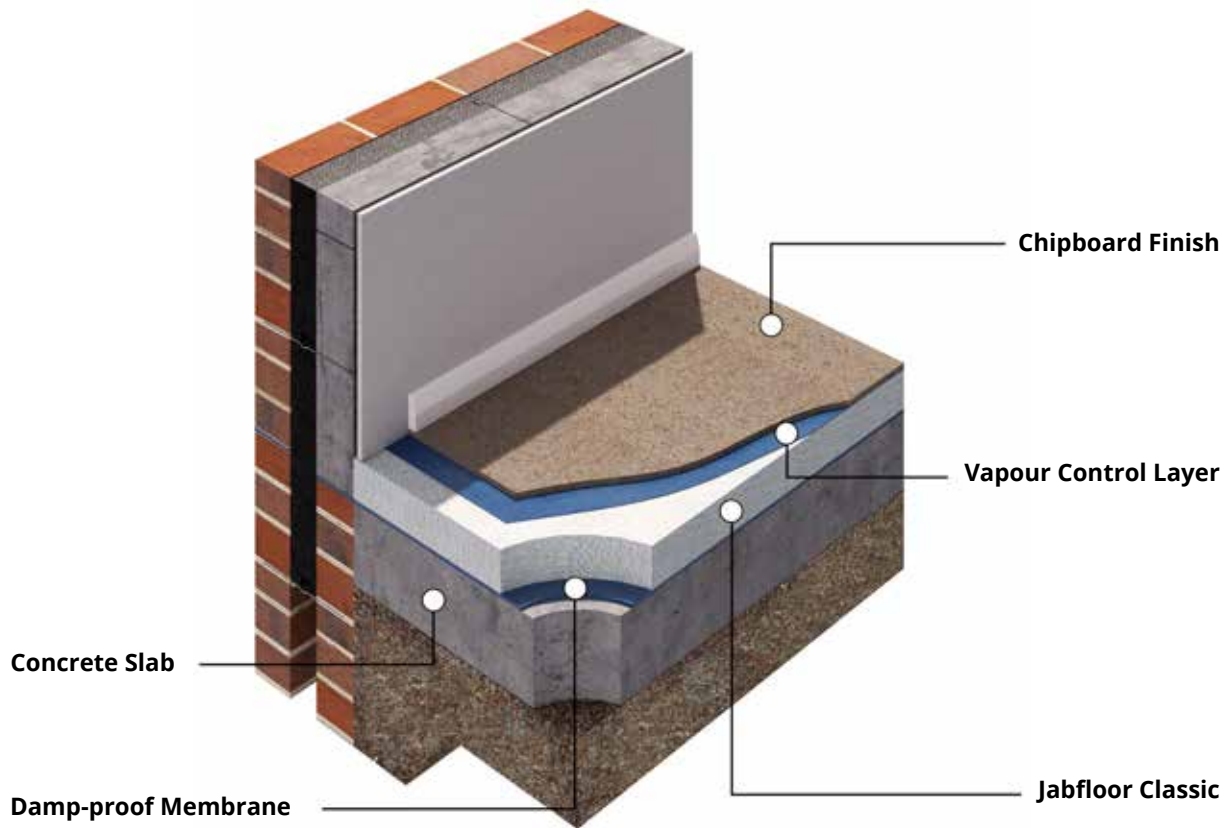
"P" is length of exposed perimeter in metres and "A" is floor area in square metres.

The measurement of both the floor area and perimeter should be made on the internal finished surface of the walls enclosing the heated space; unheated areas such as garages, porches and storage spaces need not be included. For buildings such as terraces or blocks of flats and apartments, the measurement should be taken over the total gross ground-floor area.

U-values are based on the following k-values:

- Jabfloor 70 0.038W/mK
- Jabfloor 100 0.036W/mK
- Jabfloor 150 0.035W/mK
- Jabfloor 200 0.034W/mK
- Jabfloor 250 0.034W/mK

# BELOW CHIPBOARD FINISH



## U-value Tables

U-value: 0.25 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	110	105	100	100
0.90	105	100	100	100
0.80	100	100	100	90
0.70	100	100	90	90
0.60	90	90	85	85
0.50	85	80	80	75
0.40	75	75	70	70
0.30	60	60	55	55
0.25	50	50	50	50
0.20	40	40	40	40
0.15	25	25	25	25

### Key

standard thickness    
  two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

U-value: 0.22 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	130	125	120	115
0.90	125	120	115	110
0.80	120	115	115	110
0.70	120	110	110	105
0.60	110	105	105	100
0.50	105	100	100	100
0.40	100	90	85	85
0.30	85	75	75	70
0.25	65	65	60	50
0.20	50	50	50	40
0.15	25	25	25	25

U-value: 0.20 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	150	135	135	130
0.90	140	135	130	125
0.80	140	130	130	125
0.70	135	125	125	120
0.60	130	120	120	115
0.50	120	115	110	110
0.40	110	105	100	100
0.30	100	90	90	85
0.25	85	80	75	75
0.20	65	60	60	60
0.15	40	45	40	45

U-value: 0.18 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	170	160	150	145
0.90	160	160	150	145
0.80	160	150	145	140
0.70	160	145	140	140
0.60	150	140	135	135
0.50	140	135	130	125
0.40	130	125	120	115
0.30	115	110	105	100
0.25	100	100	100	90
0.20	85	80	75	75
0.15	55	55	50	50

### Key



standard thickness    
 two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

U-value: 0.15 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	210	195	190	190
0.90	200	190	190	180
0.80	200	190	190	180
0.70	195	190	180	175
0.60	190	180	175	170
0.50	180	170	170	160
0.40	170	160	160	150
0.30	150	140	140	135
0.25	140	130	130	125
0.20	120	115	110	110
0.15	90	85	85	80

U-value: 0.10 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	320	320	300	300
0.90	320	300	300	300
0.80	320	300	300	300
0.70	320	300	300	300
0.60	320	300	300	275
0.50	300	300	275	270
0.40	300	275	270	270
0.30	270	260	250	240
0.25	250	240	230	225
0.20	230	220	210	210
0.15	200	190	195	180

### Key

 standard thickness     two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

## Installation

### Concrete slab

The concrete slab should have a level, evenly-tamped surface; a floated or screeded finish is not necessary. The slab should be left as long as possible after laying to allow it to dry out.

### Damp-proof membrane

Jabfloor should not be regarded as a damp-proof membrane (DPM), and a suitable DPM must be used to protect floors in contact with the ground. The membrane may be positioned either above or below the concrete slab; (See figures 6.2 and 6.3). Liquid membranes are positioned above the concrete slab.

If a liquid DPM is used, care should be taken that it is compatible with Jabfloor, and that it is completely dry before the insulation is laid.

Where the DPM is positioned below the concrete slab, a vapour-control layer, of minimum 1000g polythene or equivalent, should be laid over the Jabfloor. All edges should be overlapped a minimum 150mm and taped, and the material should be turned up 100mm at the perimeter and fixed behind the skirting.

### **Services**

Providing the work is carried out in accordance with the relevant Byelaws or Regulations, electrical conduits, gas and water pipes can be accommodated within the thickness of the concrete slab.

If this is not possible, it is permissible to accommodate the services within the thickness of the insulation providing the pipes etc. are securely fixed to the slab. Jabfloor should not be allowed to come into direct contact with PVC-sheathed cable, nor closer than 12mm to hot-water pipes; pipes should be haunched with a sand/cement mix or lagged using a proprietary material intended for this purpose.

Where subsequent access is required to the services, a removable panel should be provided by cutting out an appropriate area of chipboard finish and supporting it on the battens. The battens should be of preservative-treated timber, securely attached to the concrete slab using masonry nails or screws and plugs, and the chipboard screwed to the batten.

### **Jabfloor**

Jabfloor should be loose-laid over the prepared surface; all joints should be tightly butted. The boards should be cut with a sharp knife to fit accurately around services, and taped as necessary.

### **Partitions etc.**

Where masonry partitions or other heavy structures are to be built directly onto the chipboard floor, the insulation should be interrupted and a solid batten provided along the line of the partition, beneath the chipboard, to provide support. The batten should be of preservative-treated timber, securely attached to the concrete slab using masonry nails or screws and plugs.

### **Doorways**

The chipboard should be positively supported at external doorways by the use of a solid batten spanning at least the width of the door. The batten should be of preservative-treated timber, securely attached to the concrete slab using masonry nails or screws and plugs.

At internal doorways, if the tongued-and-grooved joint of the chipboard is lost, a batten should be used to provide support as described above for external doorways.

### **Chipboard finish**

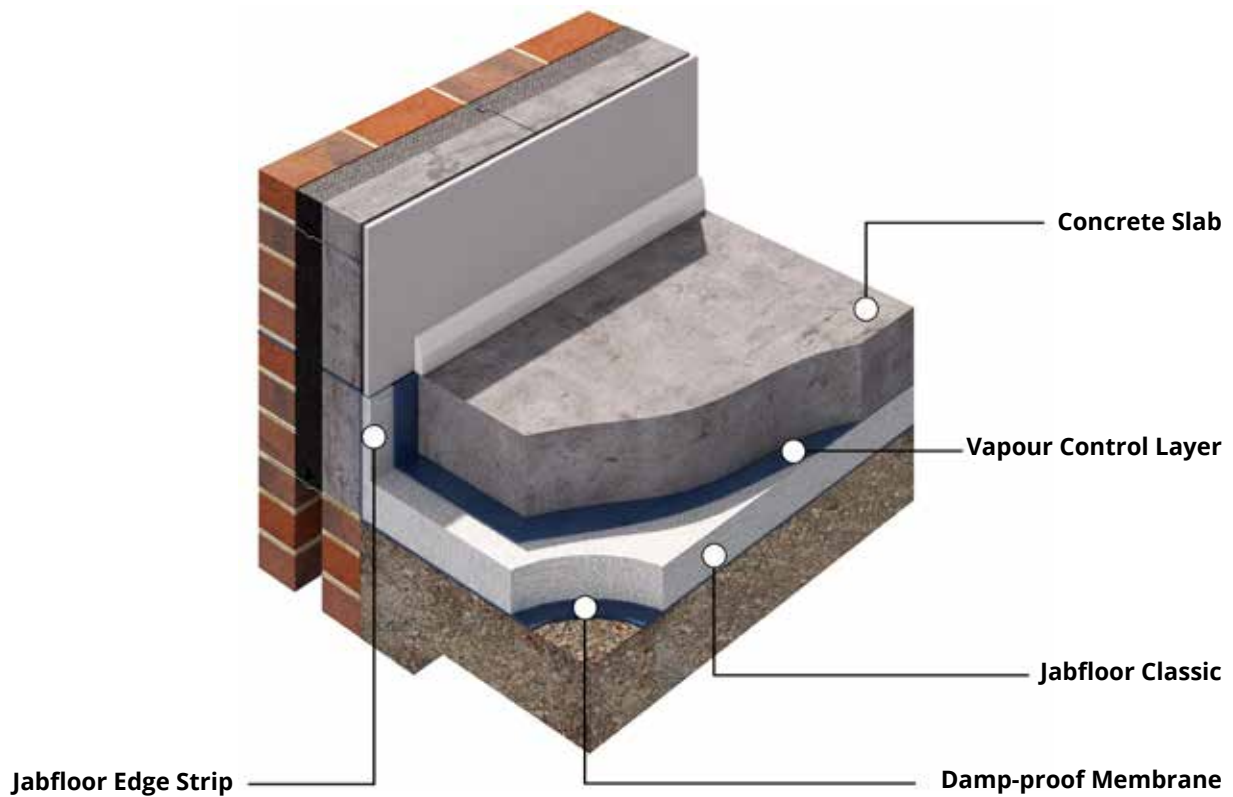
The chipboard should be Type P5 minimum 18mm-thick, with tongued-and-grooved edges, as described in BS EN 312. It is important that the recommendations given in BS EN 312 are followed regarding protection of the chipboard from water spillage in bathrooms, kitchens and utility areas.

Laying should proceed from one corner of the room ensuring that a 10-12mm gap is provided at the perimeter to allow for expansion. Temporary wedges should be placed in expansion gaps during laying to allow the chipboard joints to be tightened; the wedges must be removed after the adhesive has dried.

The boards should be laid with staggered cross joints, and all edges should be glued as laying proceeds using a PVA-based woodworking adhesive. In corridors, or wherever there are long uninterrupted runs of flooring, the inclusion of a 20mm expansion gap at 10m centres is required in addition to the 10-12mm perimeter gap.

A suitable solid timber batten should be installed beneath the expansion joint to provide support. The batten should be of preservative-treated timber, securely attached to the concrete slab using masonry nails or screws and plugs.

# BELOW GROUND SUPPORTED SLAB



U-value: 0.25 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	115	105	105	100
0.90	110	105	100	100
0.80	105	100	100	100
0.70	105	100	100	90
0.60	100	90	90	85
0.50	90	85	85	80
0.40	80	75	75	75
0.30	65	60	60	60
0.25	55	50	50	50
0.20	40	40	40	40
0.15	25	25	25	25

## Key

standard thickness    
  two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

U-value: 0.22 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	135	125	120	120
0.90	135	125	120	115
0.80	135	120	115	115
0.70	135	115	115	110
0.60	115	110	110	105
0.50	110	105	100	100
0.40	100	100	90	90
0.30	85	80	80	75
0.25	85	70	65	65
0.20	85	50	50	50
0.15	40	40	25	25

U-value: 0.20 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	150	140	140	135
0.90	145	140	135	130
0.80	145	135	130	130
0.70	140	130	130	125
0.60	135	125	125	120
0.50	125	120	115	115
0.40	115	110	105	105
0.30	100	100	100	90
0.25	90	85	80	80
0.20	70	65	65	60
0.15	40	40	40	40

U-value: 0.18 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	170	160	160	150
0.90	170	160	160	150
0.80	170	160	150	145
0.70	160	150	145	145
0.60	160	145	140	140
0.50	145	140	135	130
0.40	135	125	125	120
0.30	120	115	110	105
0.25	105	100	100	100
0.20	90	85	80	80
0.15	60	55	55	55

### Key

standard thickness    
 two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm



U-value: 0.15 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	210	200	195	190
0.90	210	195	190	190
0.80	210	195	190	180
0.70	200	190	190	180
0.60	195	190	180	175
0.50	190	175	170	170
0.40	175	170	160	160
0.30	160	145	145	140
0.25	145	135	135	130
0.20	125	120	115	115
0.15	100	90	85	85

U-value: 0.10 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	350	320	300	300
0.90	350	320	300	300
0.80	320	300	300	300
0.70	320	300	300	300
0.60	320	300	300	275
0.50	320	300	300	270
0.40	300	275	270	260
0.30	270	260	250	250
0.25	260	250	240	230
0.20	240	220	220	210
0.15	210	195	190	190

### Key

standard thickness    
 two layers of standard thickness    
 three layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

## Installation

### Damp-proof membrane

Jabfloor should not be regarded as a damp-proof membrane (DPM). A suitable DPM must be provided, positioned either above or below the Jabfloor, or on top of the concrete slab.

Liquid membranes are positioned above the slab. The hardcore should be blinded before receiving either the Jabfloor or the DPM. If a liquid DPM is used, care should be taken that it is compatible with the Jabfloor and that it is completely dry before the insulation is laid.

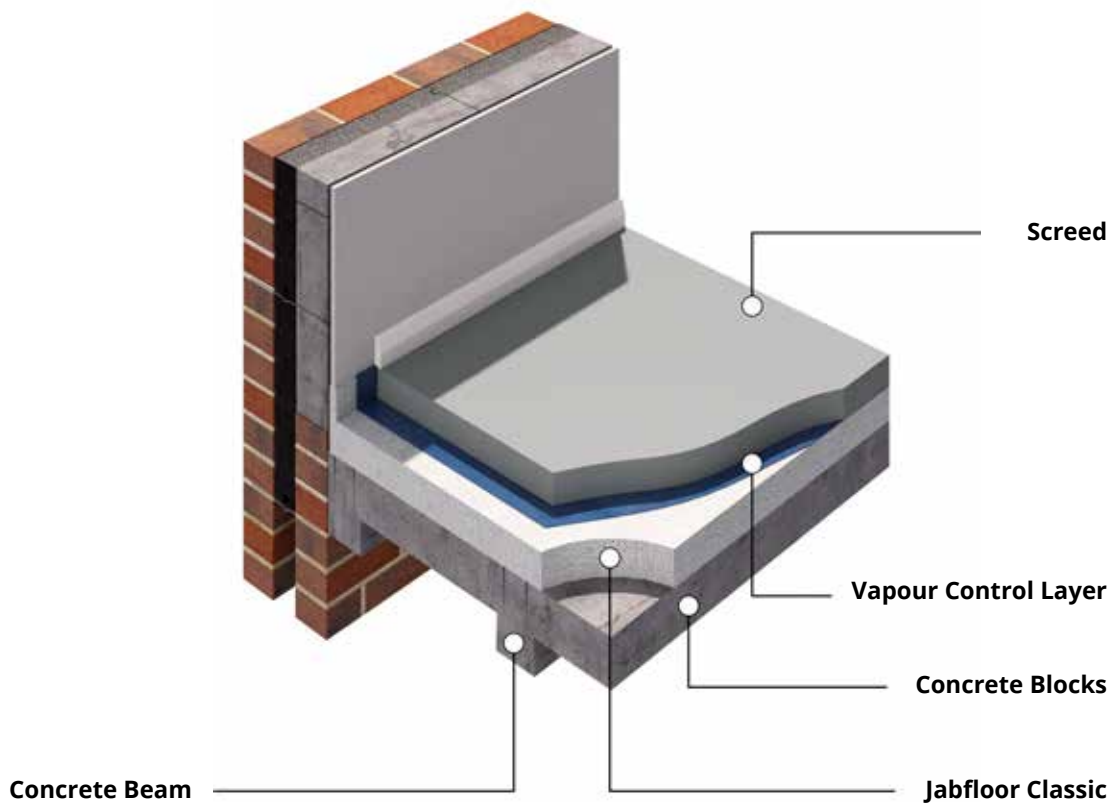
### Jabfloor

Jabfloor should be loose-laid over the prepared surface; all joints should be tightly butted. If the concrete slab is to be poured directly onto the Jabfloor, the joints should be covered with 75mm-wide adhesive tape to prevent the ingress of concrete or grout between the boards. Vertical upstands of Jabfloor edge strip should be used around perimeter to prevent cold bridging, as detailed in BRE Report 262.

### Concrete slab

The concrete slab is laid to the required thickness and either tamped or power-floated to provide the required finish. During these operations, the surface of Jabfloor or the DPM should be protected from impact damage or excessive trafficking by the use of spreader boards.

# BELOW SCREED FINISH



U-value: 0.25 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	105	100	100	100
0.90	105	100	100	100
0.80	100	100	90	90
0.70	100	90	90	85
0.60	90	85	85	80
0.50	85	80	75	75
0.40	75	70	70	65
0.30	60	55	55	55
0.25	50	50	50	40
0.20	40	40	25	25
0.15	25	25	25	25

## Key

standard thickness    
  two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

<b>U-value: 0.22 W/m<sup>2</sup>K</b>				
<b>P/A Ratio</b>	<b>Jabfloor 70</b>	<b>Jabfloor 100</b>	<b>Jabfloor 150</b>	<b>Jabfloor 200 &amp; 250</b>
1.00	125	120	115	115
0.90	125	115	115	110
0.80	120	115	110	110
0.70	115	110	105	105
0.60	110	105	100	100
0.50	105	100	100	90
0.40	100	90	85	85
0.30	80	75	70	70
0.25	65	60	60	60
0.20	50	50	50	40
0.15	25	40	25	25

<b>U-value: 0.20 W/m<sup>2</sup>K</b>				
<b>P/A Ratio</b>	<b>Jabfloor 70</b>	<b>Jabfloor 100</b>	<b>Jabfloor 150</b>	<b>Jabfloor 200 &amp; 250</b>
1.00	145	135	130	125
0.90	140	130	130	125
0.80	135	130	125	120
0.70	135	125	120	120
0.60	130	120	115	115
0.50	120	115	110	105
0.40	110	100	100	100
0.30	100	90	85	85
0.25	80	75	75	75
0.20	65	60	55	55
0.15	40	40	40	40

<b>U-value: 0.18 W/m<sup>2</sup>K</b>				
<b>P/A Ratio</b>	<b>Jabfloor 70</b>	<b>Jabfloor 100</b>	<b>Jabfloor 150</b>	<b>Jabfloor 200 &amp; 250</b>
1.00	170	160	150	145
0.90	160	150	145	145
0.80	160	150	145	140
0.70	160	145	140	135
0.60	150	140	135	130
0.50	140	130	130	125
0.40	130	120	120	115
0.30	115	105	105	100
0.25	100	100	90	90
0.20	80	75	75	75
0.15	55	50	50	50

**Key**

standard thickness    
 two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

U-value: 0.15 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	210	190	190	180
0.90	200	190	190	180
0.80	195	190	180	175
0.70	195	180	175	170
0.60	190	175	170	170
0.50	180	170	170	160
0.40	170	160	170	150
0.30	150	140	135	135
0.25	140	130	125	125
0.20	120	115	110	105
0.15	90	85	80	80

U-value: 0.10 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	320	300	300	300
0.90	320	300	300	300
0.80	320	300	300	300
0.70	320	300	300	275
0.60	320	300	300	270
0.50	300	300	270	270
0.40	300	270	260	260
0.30	270	250	250	240
0.25	250	240	230	225
0.20	230	220	210	210
0.15	200	190	190	180

### Key

standard thickness    
 two layers of standard thickness    
 three layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

## Installation

### Concrete slab

The concrete slab should have a level, evenly-tamped surface; a floated or screeded finish is not necessary. The slab should be left as long as possible after laying to allow it to dry out.

### Damp-proof membrane

Jabfloor should not be regarded as a damp-proof membrane (DPM), and a suitable DPM must be used to protect floors in contact with the ground. The membrane may be positioned either above or below the concrete slab; liquid membranes are positioned above the concrete slab. If a liquid DPM is used, care should be taken that it is compatible with Jabfloor, and that it is completely dry before the insulation is laid.

### Services

Providing the work is carried out in accordance with the relevant Byelaws or Regulations, electrical conduits, gas and water pipes can be accommodated within the thickness of the concrete slab. If this is not possible, it is permissible to accommodate the services within the thickness of the insulation providing pipes etc. are securely fixed to the slab. Jabfloor should not be allowed to come into direct contact with PVC-sheathed cable, nor closer than 12mm to hot-water pipes; pipes should be haunched with a sand/cement mix or lagged using a proprietary material intended for this purpose.

### Jabfloor

Jabfloor should be loose-laid over the prepared surface; all joints should be tightly butted and taped with 75mm-wide adhesive tape to prevent the ingress of screed between the boards. The boards should be cut with a sharp knife to fit accurately around services, and taped as necessary.

### Screeding

The recommendations of the appropriate parts of BS 8204 should always be followed. Sand/cement screeds should be at least 65mm-thick for domestic applications and 75mm-thick for non-domestic applications. In order to minimise cracking or curling, the screed should be laid so that jointless areas do not exceed 15m<sup>2</sup> and with the ratio of length to width not exceeding 1.5:1.

If these limits cannot be observed, the use of light-gauge galvanised-metal reinforcement, placed centrally in the screed, will help to distribute shrinkage cracks evenly. During the screeding operations, the surface of the insulation should be protected from impact damage or excessive trafficking by the use of spreader boards.

# PRECAST SUSPENDED CONCRETE FLOOR



U-value: 0.25 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	85	80	75	75
0.90	80	75	75	75
0.80	80	75	75	70
0.70	75	70	70	70
0.60	70	65	65	65
0.50	65	60	60	60
0.40	60	55	55	50
0.30	50	40	40	40
0.25	40	40	40	40
0.20	25	25	25	25
0.15	-	-	-	-

## Key

standard thickness    
  two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

<b>U-value: 0.22 W/m<sup>2</sup>K</b>				
<b>P/A Ratio</b>	<b>Jabfloor 70</b>	<b>Jabfloor 100</b>	<b>Jabfloor 150</b>	<b>Jabfloor 200 &amp; 250</b>
1.00	105	100	100	100
0.90	100	100	100	90
0.80	100	100	90	90
0.70	100	90	90	85
0.60	90	85	85	80
0.50	85	80	80	75
0.40	80	75	70	70
0.30	65	60	60	60
0.25	55	50	50	50
0.20	40	40	40	40
0.15	25	25	25	25

<b>U-value: 0.20 W/m<sup>2</sup>K</b>				
<b>P/A Ratio</b>	<b>Jabfloor 70</b>	<b>Jabfloor 100</b>	<b>Jabfloor 150</b>	<b>Jabfloor 200 &amp; 250</b>
1.00	120	115	110	105
0.90	120	110	110	105
0.80	115	110	105	105
0.70	110	105	105	100
0.60	110	100	100	100
0.50	100	100	100	90
0.40	100	90	85	85
0.30	80	75	75	75
0.25	70	65	65	65
0.20	55	55	50	50
0.15	40	40	40	40

<b>U-value: 0.18 W/m<sup>2</sup>K</b>				
<b>P/A Ratio</b>	<b>Jabfloor 70</b>	<b>Jabfloor 100</b>	<b>Jabfloor 150</b>	<b>Jabfloor 200 &amp; 250</b>
1.00	140	130	130	125
0.90	140	130	125	125
0.80	135	130	125	120
0.70	130	125	120	120
0.60	130	120	120	115
0.50	120	115	115	110
0.40	115	105	105	100
0.30	100	100	100	90
0.25	90	85	85	80
0.20	75	70	70	70
0.15	55	50	50	50

**Key**

standard thickness    
 two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm



U-value: 0.15 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	180	170	170	160
0.90	180	170	170	160
0.80	175	170	160	160
0.70	170	160	160	160
0.60	170	160	160	150
0.50	160	160	150	145
0.40	160	145	140	140
0.30	140	135	130	125
0.25	130	125	120	115
0.20	115	110	105	105
0.15	100	85	85	85

U-value: 0.10 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	300	300	275	270
0.90	300	300	270	270
0.80	300	275	270	260
0.70	300	275	270	260
0.60	300	270	260	260
0.50	300	270	260	250
0.40	270	260	250	240
0.30	260	250	240	230
0.25	250	240	230	220
0.20	240	220	220	210
0.15	210	200	195	190

### Key

standard thickness    
 two layers of standard thickness    
 three layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

## U-value Tables - Beam & Block Floor, Concrete Block

U-value: 0.25 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	100	100	90	90
0.90	100	90	90	85
0.80	100	90	85	85
0.70	100	85	85	80
0.60	90	85	80	80
0.50	85	80	75	75
0.40	75	70	70	65
0.30	65	60	55	55
0.25	55	50	50	50
0.20	40	40	40	40
0.15	25	25	25	25

U-value: 0.22 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	120	115	110	105
0.90	120	110	110	105
0.80	115	110	105	105
0.70	110	105	105	100
0.60	110	100	100	100
0.50	105	100	100	90
0.40	100	90	85	85
0.30	85	80	75	75
0.25	75	70	65	65
0.20	60	55	55	50
0.15	40	40	40	30

U-value: 0.20 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	135	130	125	120
0.90	135	125	125	120
0.80	130	125	120	120
0.70	130	120	120	115
0.60	125	120	115	110
0.50	120	110	110	105
0.40	110	105	100	100
0.30	100	100	90	90
0.25	90	85	80	80
0.20	75	70	70	65
0.15	55	50	50	50

### Key

standard thickness    
  two layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

U-value: 0.18 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	160	145	145	140
0.90	160	145	140	140
0.80	150	145	140	135
0.70	150	140	135	135
0.60	145	135	135	130
0.50	140	130	130	125
0.40	130	125	120	115
0.30	120	110	110	105
0.25	110	105	100	100
0.20	100	90	85	85
0.15	75	70	65	65

U-value: 0.15 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	195	190	180	175
0.90	195	190	180	175
0.80	190	180	175	170
0.70	190	180	175	170
0.60	190	175	170	170
0.50	180	170	170	160
0.40	170	160	160	160
0.30	160	150	145	140
0.25	150	140	135	135
0.20	135	125	125	120
0.15	115	105	105	100

U-value: 0.10 W/m <sup>2</sup> K				
P/A Ratio	Jabfloor 70	Jabfloor 100	Jabfloor 150	Jabfloor 200 & 250
1.00	320	300	300	300
0.90	320	300	300	300
0.80	320	300	300	275
0.70	320	300	300	275
0.60	300	300	275	270
0.50	300	300	270	270
0.40	300	270	270	260
0.30	275	260	260	250
0.25	270	250	250	240
0.20	250	240	230	225
0.15	230	220	210	210

### Key

standard thickness    
 two layers of standard thickness    
 three layers of standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

## Installation

The surface to receive the Jabfloor should be level and even, providing a fully supporting surface. Level discrepancies are common with beam and block and hollow core plank floors, therefore a levelling screed or compound should be used to remove level variations. Dry sand is not recommended as a levelling medium.

### Damp proof membrane

Damp proof membranes are not required over suspended concrete floors, however there may be a requirement for a protective barrier against Radon, other gases or ground contaminants. This membrane may be placed above or below the Jabfloor.

If a liquid membrane is used this will be applied to the concrete floor surface. Care should be taken to ensure it is compatible with Jabfloor EPS and that it is completely dry before the insulation is laid.

### Services

It is permissible to accommodate services within the thickness of the insulation provided pipes etc are securely fixed to the concrete floor. Jabfloor should not be allowed to come into direct contact with PVC-sheathed cables, nor closer than 12mm to hot water pipes. Cables can be secured to ensure contact does not occur, placed in conduit or covered with any material such as polythene DPM or building paper. Pipes should be independently lagged.

### Jabfloor

Jabfloor should be loose laid over the prepared surface; all joints should be tightly butted. The boards should be cut with a sharp knife to fit accurately around services.

### Screeding

When applying a screed finish the joints of the Jabfloor boards should be taped with 75mm-wide adhesive tape to prevent ingress of screed between the boards. The recommendations of the appropriate parts of BS 8204 should always be followed.

Sand/cement screeds should be at least 65mm-thick for domestic applications and 75mm-thick for non-domestic applications. In order to minimise cracking or curling, the screed should be laid so that jointless areas do not exceed 15m<sup>2</sup> and with the ratio of length to width not exceeding 1.5:1.

If these limits cannot be observed, the use of a light-gauge galvanised metal reinforcement, placed centrally in the screed, will help to distribute shrinkage cracks evenly.

During screeding operations, the surface of the Jabfloor should be protected from impact damage or excessive trafficking by the use of spreader boards. A 30mm thick perimeter edge strip of insulation should be provided for the depth of the screed to reduce cold bridging as recommended in BRE Report 262.

### Chipboard

The chipboard should be Type P5 with tongued and grooved edges as described in BS 7916. A minimum thickness of 18mm is required for domestic applications and 22mm for non-domestic applications.

It is important that the recommendations given in BS 7916 are followed regarding protection of the chipboard from water spillage in bathrooms, kitchens and utility areas.

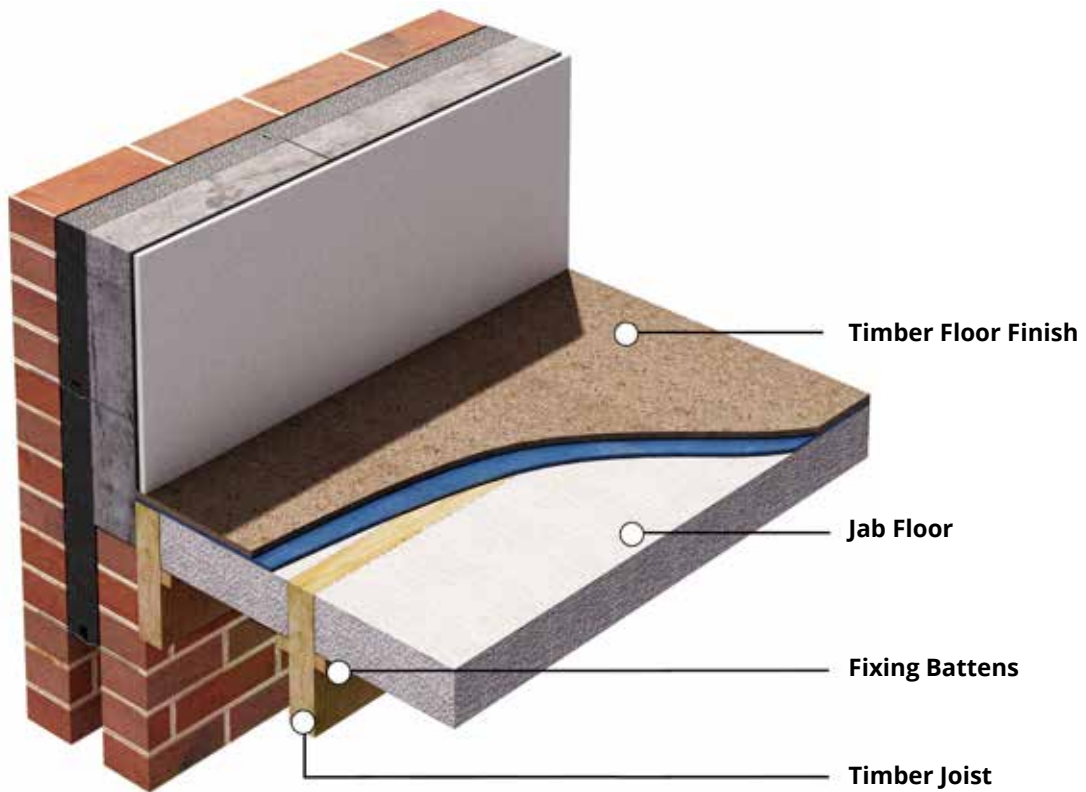
Installation of the chipboard sheets should proceed from one corner of the room ensuring that a 10–12mm gap is maintained at the perimeter to allow for expansion. Temporary wedges should be placed in the expansion gaps during laying to allow the chipboard joints to be tightened; the wedges must be removed after the adhesive has dried.

The boards should be laid with staggered joints, and all edges glued as laying proceeds using a PVA based woodworking adhesive.

The chipboard should be supported where masonry partitions or other heavy structures are to be built directly onto the chipboard finish and at external and internal doorways. This is achieved by cutting back the insulation and providing a solid timber batten along the line of the partition or door opening, beneath the chipboard. The batten should be of preservative treated timber, securely attached to the concrete floor using masonry nails or screws and plugs.

In corridors, or wherever there are long uninterrupted runs of flooring, the inclusion of a 20mm expansion gap at 10m centres is required in addition to the 10-12mm perimeter gap. The edges of the chipboard at the expansion gap must be supported by a timber batten as described above.

# SUSPENDED TIMBER FLOOR



U-values						
P/A Ratio	0.25W/m <sup>2</sup> K	0.22W/m <sup>2</sup> K	0.20W/m <sup>2</sup> K	0.18W/m <sup>2</sup> K	0.15W/m <sup>2</sup> K	0.10W/m <sup>2</sup> K
1.00	130	160	175	210	260	410
0.90	125	150	175	200	260	410
0.80	120	150	170	195	250	410
0.70	120	145	170	190	250	400
0.60	110	140	160	190	240	400
0.50	105	130	160	180	230	390
0.40	100	120	140	170	220	375
0.30	75	105	125	150	210	360
0.25	65	90	110	140	190	345
0.20	50	70	90	120	170	325
0.15	25	40	60	90	140	295

## Key

- standard thickness
- two layers of standard thickness
- three layers of standard thickness
- non-standard thickness

Standard thicknesses: 25, 40, 50, 60, 75, 100, 120mm

## Installation

### Support

To prevent movement, Jabfloor should be adequately supported along its length.

Suitable supports consisting of 25x25mm timber battens are nailed to the sides of the joists. A slight gap will prevent Jabfloor and the timber boards rubbing against each other.

### Jabfloor

Jabfloor should be cut to fit snugly between the joists and should be pushfitted into position, with the ends of adjacent boards tightly butted.

### Chipboard finish

Where chipboard is used as the floor finish it should be Type P5, minimum 18mm-thick for domestic floor applications and 22mm-thick for non-domestic floor applications, with tongued and grooved edges as described in BS 7916.