



# Jabfloor 70, 100, 150, 200, 250

## Floor insulation – over slab with screed finish

Jabfloor is a closed cell expanded polystyrene (EPS) insulation panel for use in all floor constructions.

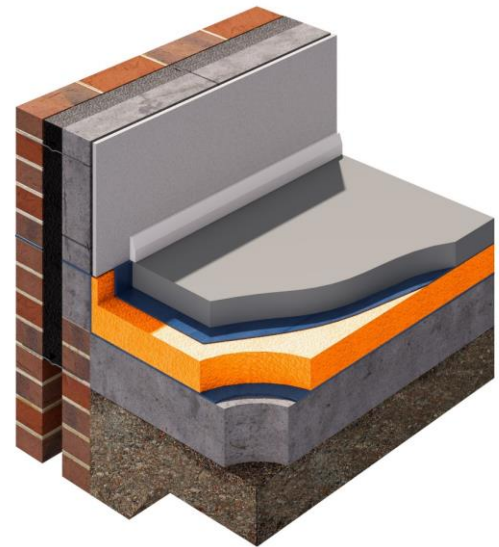
A range of compressive strengths are available to suit all building types from domestic to industrial.

Approved by BBA as Jablite Floor Insulation - Certificate number 87/1796.

BS 8204 gives recommendations of screed type. Guidelines from this document are included in our installation details.

Jabfloor can be used in temperatures up to 80°C. It is therefore suitable for use with underfloor heating systems.

There are no requirements for special PPE when installing or cutting Jabfloor. (full installation details are shown later)



### Dimensions

|                           |   |
|---------------------------|---|
| <b>Standard Size</b>      | 2400 x1200mm  |
| <b>Standard Thickness</b> | 25, 30, 40, 50, 60, 75, 100, 120, 150 and 200mm<br>(Other thicknesses available to order) |

### Properties :

| Grade        | Thermal Conductivity (Lambda) (W/mK) | Design load at 1% nominal compression (kPa) | Design load at 10% nominal compression (kPa) |
|--------------|--------------------------------------|---|--|
| Jabfloor 70  | 0.038                                | 20  | 70   |
| Jabfloor 100 | 0.036                                | 45  | 100  |
| Jabfloor 150 | 0.035                                | 70  | 150  |
| Jabfloor 200 | 0.034                                | 90  | 200  |
| Jabfloor 250 | 0.034                                | 100   | 250  |





**Application :** This information is provided as a guideline, please refer to the Jabfloor compressive strengths table. The recommendations of BS EN 1991-1-1 and BS EN 1990 should be followed in the design of the floor

| Grade        | Application   |
|--------------|---|
| Jabfloor 70  | Domestic  |
| Jabfloor 100 | Offices, Special Occupancy Residential (e.g. Care Home) |
| Jabfloor 150 | Public, Government and Educational Buildings            |
| Jabfloor 200 | Industrial and Commercial                               |
| Jabfloor 250 | Industrial, Cold Store, Heavy Commercial                |

### Accreditation :

|                                     |  |
|-------------------------------------|--|
| <b>BBA</b>                          | Jabfloor Insulation has been assessed and approved by the British Board of Agrément as Jablite Floor Insulation for use over slab with a screed finish in ground bearing floors. Certificate number 87/1796. This Certificate covers Grades 70, 100 and 150.   |
| <b>NHBC Approved</b>                | NHBC accepts the use of Jablite Floor Insulation, provided it is installed, used and maintained in accordance with the BBA Certificate, in relation to NHBC Standards, Chapters 5.1 Substructure and ground bearing floors and 5.2 Suspended ground floors   |
| <b>CE marking</b>                   | Jablite have taken the responsibility of CE marking the product in accordance with harmonised European Standard BS EN 13163 : 2012. Declaration of Performance is available on Request.  |
| <b>Quality</b>                      | All Jablite products are manufactured in production facilities which are certified to ISO 9001 Quality Management  |
| <b>Environmental Responsibility</b> | All Jablite manufacturing facilities are ISO 14001 certified. We operate an Environmental Management System which includes our supply chain (see BREEAM section for more information)  |
| <b>Compliance</b>                   | Jabfloor conforms to the required properties as defined in BS EN 13163:2012 – Thermal insulation products for buildings – Factory made expanded polystyrene (EPS) products – Specification   |
| <b>Fire</b>                         | Solid ground floors are not required to provide fire resistance. When properly installed Jabfloor is fully protected by the screed floor finish and will have no adverse effect on the fire performance of the building into which it is installed.<br><br>Jabfloor is supplied as non-flame retardant material as standard.<br><br>Euroclass E, flame-retardant material is available to order. |





## Environment and Sustainability :

|                              |   |
|------------------------------|---|
| <b>A+</b>                    | Jabfloor insulation is manufactured from EPS (expanded polystyrene) which has an A+ rating in the BRE Green Guide to Specification.   |
| <b>Climate Change</b>        | Jabfloor insulation has an ozone depletion potential (ODP) of zero and a global warming potential (GWP) of less than 5.<br><br>EPS does not create any known risk to the environment  |
| <b>100%</b>                  | Jabfloor insulation is 100% recyclable and Jablite offers a site collection recycling service.  |
| <b>BREEAM</b>                | <p><b>Responsible Sourcing.</b></p> <p>Jablite insulation products are manufactured in factories which are ISO 14001 and ISO 9001 certified Jablite purchases raw material from suppliers who are ISO 14001 certified. The ISO certificate are in the Technical Resource Centre on the Jablite website <a href="http://www.Jablite.co.uk">www.Jablite.co.uk</a></p> <p><b>Key Process (Insulation Manufacture)</b><br/>ISO 14001: Certificate Number EMS 559414</p> <p><b>Supply Chain Processes (supply of materials for end products)</b><br/>ISO 14001: Certificate Number NL 015213-1</p> <p><b>Embodied Impact</b><br/>Jablite insulation products are made from EPS which has been given an A+ rating by the BRE.</p> <p>The calculation of embodied impact relative to thermal performance is a function of the material volume (for each build), its BRE Green Guide Rating and its thermal conductivity.</p> <p>The thermal conductivity of our products is available on both the product packaging and this datasheet</p> |
| <b>Biological Properties</b> | Jabfloor EPS insulation is non-toxic and non-biodegradable.<br><br>Jabfloor will not sustain mould growth and has no nutrient value to insects or vermin.<br><br>Jabfloor will remain an effective insulation for the life of the building.   |





## INSTALLATION

### Concrete slab

The concrete floor should have a level even surface. A tamped finish is suitable for laying Jabfloor.

### Damp-proof membrane

A suitable DPM such as 1200 gauge polythene must be included in the floor construction. This may be installed above or below the concrete slab. (see diagrams)

If a liquid DPM is used, please ensure it is compatible with Jabfloor. Liquid DPM's must be allowed to dry before laying Jabfloor.

### Jabfloor

Jabfloor should be loose-laid over the prepared surface with board joints tightly butted.

Before laying wet screed the joints of the Jabfloor insulation should be taped with 75mm wide masking tape or similar, alternatively a building paper or polythene sheet may be laid over the surface of the insulation.

Jabfloor may be cut with a sharp knife or fine toothed saw to fit on site.

### Screed

Sand/cement screeds should be at least 65mm-thick for domestic applications and 75mm-thick for non domestic applications. BS8204 details full specifications and application of screeds.

During screeding operations, the surface of the insulation should be protected from impact damage or excessive trafficking by the use of spreader boards.

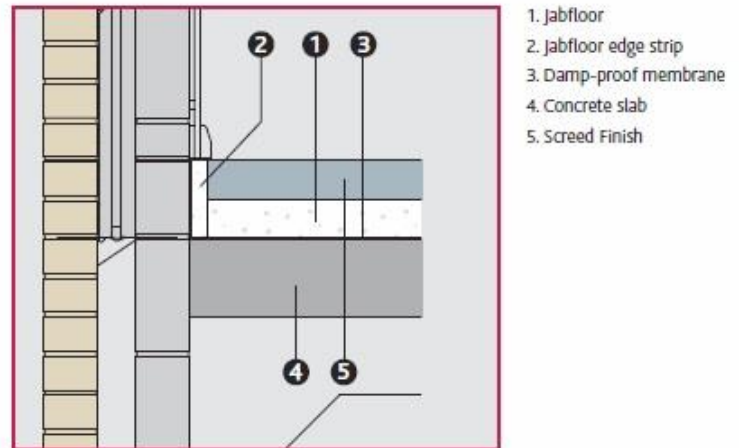
### Services

Electrical conduits, gas and water pipes may be accommodated within the Jabfloor insulation layer. Pipes etc. should be securely fixed to the concrete slab.

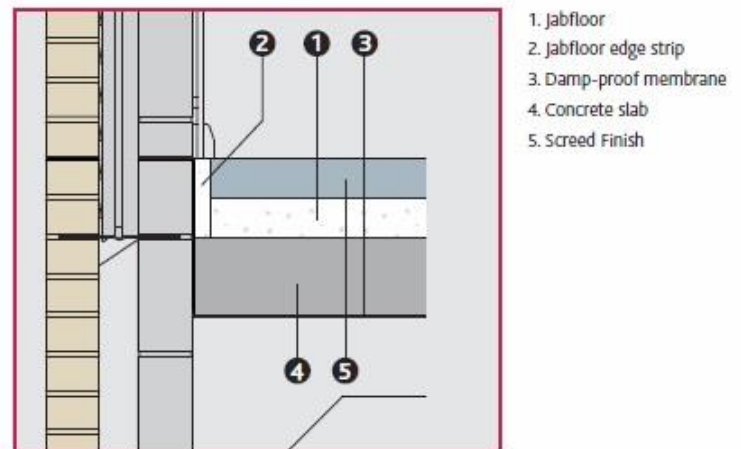
Jabfloor should not be allowed to come into direct contact with PVC-sheathed cable, nor closer than 12mm to hot-water pipes.

Please note Jabfloor can be used in direct contact with underfloor heating pipes.

Damp-proof membrane below insulation



Damp-proof membrane below concrete slab





## U VALUES

The tables below show the required thicknesses of Jabfloor 70, 100, 150, 200 and 250 to meet U-values of 0.25, 0.22, 0.20, 0.18, 0.15 and 0.10 W/m<sup>2</sup>K.

The calculations have been based on a standard dense concrete floor slab 100mm thick.

**Table 4.1:**

|           | U-values:<br>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      | 110                                  | 100          | 100          | 95                 |
| 0.80      | 105                                  | 100          | 95           | 95                 |
| 0.70      | 100                                  | 90           | 90           | 85                 |
| 0.60      | 95                                   | 90           | 85           | 80                 |
| 0.50      | 85                                   | 80           | 80           | 75                 |
| 0.40      | 75                                   | 75           | 70           | 70                 |
| 0.30      | 60                                   | 60           | 55           | 55                 |
| 0.25      | 50                                   | 45           | 45           | 45                 |
| 0.20      | 30                                   | 30           | 30           | 30                 |
| 0.15      | 25                                   | 25           | 25           | 25                 |

**Table 4.2:**

|           | U-values:<br>0.22 W/m <sup>2</sup> K |              |              |                    |
|-----------|--------------------------------------|--------------|--------------|--------------------|
| P/A Ratio | Jabfloor 70                          | Jabfloor 100 | Jabfloor 150 | Jabfloor 200 & 250 |
| 1.00      | 130                                  | 120          | 120          | 115                |
| 0.90      | 125                                  | 120          | 115          | 115                |
| 0.80      | 120                                  | 115          | 115          | 110                |
| 0.70      | 120                                  | 110          | 110          | 110                |
| 0.60      | 115                                  | 105          | 105          | 105                |
| 0.50      | 110                                  | 100          | 100          | 95                 |
| 0.40      | 95                                   | 90           | 90           | 85                 |
| 0.30      | 80                                   | 75           | 75           | 70                 |
| 0.25      | 65                                   | 65           | 60           | 60                 |
| 0.20      | 50                                   | 50           | 50           | 50                 |
| 0.15      | 25                                   | 25           | 25           | 25                 |

\*P/A ratio : "P" is length of exposed perimeter in metres and "A" is floor area in square metres

NB: Thickness indicated may be obtained using one or two layers of standard thickness product





Table 4.3:

|           | U-values:<br>$0.20 W/m^2K$ |              |              |                    |
|-----------|----------------------------|--------------|--------------|--------------------|
| P/A Ratio | Jabfloor 70                | Jabfloor 100 | Jabfloor 150 | Jabfloor 200 & 250 |
| 1.00      | 145                        | 135          | 135          | 130                |
| 0.90      | 140                        | 135          | 130          | 125                |
| 0.80      | 140                        | 130          | 130          | 125                |
| 0.70      | 135                        | 130          | 125          | 120                |
| 0.60      | 130                        | 125          | 120          | 115                |
| 0.50      | 120                        | 115          | 115          | 110                |
| 0.40      | 110                        | 105          | 105          | 100                |
| 0.30      | 100                        | 95           | 90           | 85                 |
| 0.25      | 85                         | 80           | 80           | 75                 |
| 0.20      | 65                         | 60           | 60           | 60                 |
| 0.15      | 40                         | 40           | 40           | 40                 |

Table 4.4:

|           | U-values:<br>$0.18 W/m^2K$ |              |              |                    |
|-----------|----------------------------|--------------|--------------|--------------------|
| P/A Ratio | Jabfloor 70                | Jabfloor 100 | Jabfloor 150 | Jabfloor 200 & 250 |
| 1.00      | 170                        | 160          | 150          | 145                |
| 0.90      | 160                        | 155          | 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          | 105                |
| 0.25      | 105                        | 100          | 95           | 95                 |
| 0.20      | 85                         | 80           | 80           | 75                 |
| 0.15      | 55                         | 50           | 50           | 50                 |

\*P/A ratio : "P" is length of exposed perimeter in metres and "A" is floor area in square metres

NB: Thickness indicated may be obtained using one or two layers of standard thickness product





Table 4.5:

|           | U-values:<br>$0.15 W/m^2K$ |              |              |                    |
|-----------|----------------------------|--------------|--------------|--------------------|
| P/A Ratio | Jabfloor 70                | Jabfloor 100 | Jabfloor 150 | Jabfloor 200 & 250 |
| 1.00      | 210                        | 195          | 190          | 185                |
| 0.90      | 200                        | 190          | 190          | 185                |
| 0.80      | 200                        | 190          | 185          | 180                |
| 0.70      | 195                        | 185          | 180          | 175                |
| 0.60      | 190                        | 180          | 175          | 175                |
| 0.50      | 180                        | 170          | 170          | 160                |
| 0.40      | 170                        | 160          | 160          | 150                |
| 0.30      | 150                        | 145          | 130          | 135                |
| 0.25      | 140                        | 130          | 130          | 125                |
| 0.20      | 120                        | 115          | 115          | 110                |
| 0.15      | 90                         | 85           | 85           | 80                 |

Table 4.6:

|           | U-values:<br>$0.10 W/m^2K$ |              |              |                    |
|-----------|----------------------------|--------------|--------------|--------------------|
| P/A Ratio | Jabfloor 70                | Jabfloor 100 | Jabfloor 150 | Jabfloor 200 & 250 |
| 1.00      | 320                        | 305          | 300          | 300                |
| 0.90      | 320                        | 300          | 300          | 300                |
| 0.80      | 320                        | 300          | 300          | 300                |
| 0.70      | 320                        | 300          | 300          | 280                |
| 0.60      | 320                        | 300          | 300          | 275                |
| 0.50      | 300                        | 300          | 280          | 275                |
| 0.40      | 300                        | 270          | 270          | 260                |
| 0.30      | 270                        | 260          | 250          | 240                |
| 0.25      | 250                        | 240          | 230          | 225                |
| 0.20      | 230                        | 220          | 210          | 210                |
| 0.15      | 200                        | 190          | 190          | 180                |

\*P/A ratio : "P" is length of exposed perimeter in metres and "A" is floor area in square metres

NB: Thickness indicated may be obtained using one or two layers of standard thickness product

