Jabfloor 70, 100, 150, 200, 250

Floor insulation – below ground supported slab

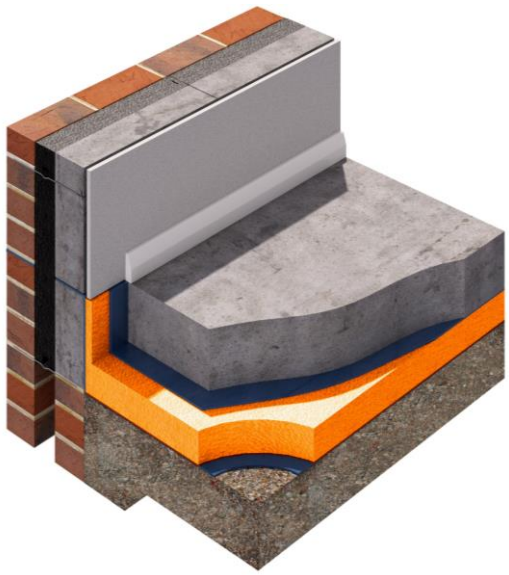
Jabfloor is a closed cell expanded polystyrene (EPS) insulation panel for use in all floor constructions.

Available in a range of compressive strengths to suit all building types from domestic to industrial.

Jabfloor insulation has been tested and approved by the British Board of Agrément (BBA) as Jablite Floor Insulation 70, 100 and 150. Certificate number 87/1796

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

Jabfloor is lightweight and easy to install. There are no requirements for special PPE when installing or cutting Jabfloor. (full installation details are shown later)



Dimensions

Standard Size	2400 x1200mm
Standard Thickness	25, 30, 40, 50, 60, 75, 100, 120, 150 and 200mm (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 :

BBA	Jabfloor Insulation has been assessed and approved by the British Board of Agrément as Jablite Floor Insulation for use below slab in solid ground floors. Certificate number 87/1796. This Certificate covers Grades 70, 100 and 150.
NHBC Approved	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
CE marking	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.
Quality	All Jablite products are manufactured in production facilities which are certified to ISO 9001 Quality Management
Environmental Responsibility	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)
Compliance	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
Fire	Solid ground floors are not required to provide fire resistance. When properly installed Jabfloor is fully protected by the concrete slab and will have no adverse effect on the fire performance of the building into which it is installed. Jabfloor is supplied as non-flame retardant material as standard. Euroclass E, flame-retardant material is available to order.

Environment and Sustainability :

A+	Jabfloor insulation is manufactured from EPS (expanded polystyrene) which has an A+ rating in the BRE Green Guide to Specification.
Climate Change	Jabfloor insulation has an ozone depletion potential (ODP) of zero and a global warming potential (GWP) of less than 5. EPS does not create any known risk to the environment
100%	Jabfloor insulation is 100% recyclable and Jablite offers a site collection recycling service.
BREEAM	**Responsible Sourcing.** 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 www.Jablite.co.uk **Key Process (Insulation Manufacture)** ISO 14001: Certificate Number EMS 559414 **Supply Chain Processes (supply of materials for end products)** ISO 14001: Certificate Number NL 015213-1 **Embodied Impact** Jablite insulation products are made from EPS which has been given an A+ rating by the BRE. 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. The thermal conductivity of our products is available on both the product packaging and this datasheet
Biological Properties	Jabfloor EPS insulation is non-toxic and non-biodegradable. Jabfloor will not sustain mould growth and has no nutrient value to insects or vermin. Jabfloor will remain an effective insulation for the life of the building.

INSTALLATION

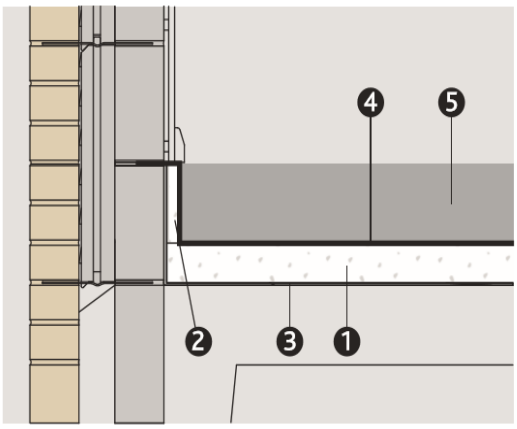
A suitable DPM such as 1200 gauge polythene is installed over the prepared ground or blinded hardcore base.

Jabfloor is loose-laid over the DPM with all joints tightly butted.

Vertical upstands of Jabfloor Edge Strip should be used around perimeter to prevent cold bridging, as detailed in BRE Report 262.

The Jabfloor panels and Edge Strips may be cut to fit on site with a sharp knife or fine toothed saw.

Figure 2.4 Damp-proof membrane below insulation



1. Jabfloor
2. Jabfloor edge strip
3. Damp-proof membrane
4. Vapour control layer
5. Concrete slab

A suitable VCL such as 500 gauge polythene is laid over the Jabfloor with all joints lapped and sealed.

The concrete slab is then poured or pumped over the VCL to the required thickness.

During these operations the vapour control layer should be protected from impact damage or excessive trafficking by the use of spreader boards.

Structural steel reinforcement must be placed onto spacer pads sufficient to prevent puncturing the VCL.

The concrete slab is then either tamped or power-floated to provide the required finish.

Damp-proof membrane

Jabfloor should not be regarded as a damp-proof membrane (DPM). A suitable DPM must be provided. Good building practice indicates that a DPM is placed below the Jabfloor and a vapour control layer (VCL) is installed above the Jabfloor on the warm side of the insulation to inhibit the risk of interstitial condensation.

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.

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 0.10W/m2K.

Table 2.1:

Thickness (mm) to achieve U-value 0.25 W/m^2K				
P/A Ratio*	**Jabfloor 70**	**Jabfloor 100**	**Jabfloor 150**	**Jabfloor 200 & 250**
1.00	110	105	100	100
0.90	110	100	100	100
0.80	105	100	100	100
0.70	100	100	95	90
0.60	100	90	90	85
0.50	85	80	80	75
0.40	80	75	70	70
0.30	65	60	60	55
0.25	50	50	50	50
0.20	40	30	30	30
0.15	25	25	25	25

Table 2.2:

Thickness (mm) to achieve U-value 0.22 W/m^2K				
P/A Ratio*	**Jabfloor 70**	**Jabfloor 100**	**Jabfloor 150**	**Jabfloor 200 & 250**
1.00	130	125	120	120
0.90	125	120	120	120
0.80	125	120	120	110
0.70	120	120	110	110
0.60	120	110	110	105
0.50	110	100	100	100
0.40	100	100	90	90
0.30	80	80	75	75
0.25	70	65	65	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 2.3:

Thickness (mm) to achieve U-value 0.20 W/m^2K				
P/A Ratio*	**Jabfloor 70**	**Jabfloor 100**	**Jabfloor 150**	**Jabfloor 200 & 250**
1.00	150	140	140	130
0.90	145	140	130	130
0.80	140	130	130	125
0.70	140	130	125	120
0.60	130	125	120	120
0.50	120	120	120	110
0.40	110	110	100	100
0.30	100	90	90	85
0.25	85	80	80	75
0.20	65	60	60	60
0.15	40	40	40	40

Table 2.4:

Thickness (mm) to achieve U-value 0.18 W/m^2K				
P/A Ratio*	**Jabfloor 70**	**Jabfloor 100**	**Jabfloor 150**	**Jabfloor 200 & 250**
1.00	170	160	160	150
0.90	170	160	150	150
0.80	160	150	150	150
0.70	160	150	150	140
0.60	150	150	150	140
0.50	150	140	140	130
0.40	130	125	120	120
0.30	120	110	110	110
0.25	105	100	100	100
0.20	85	80	80	75
0.15	60	55	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 2.5:

Thickness (mm) to achieve U-value 0.15 W/m^2K				
P/A Ratio*	**Jabfloor 70**	**Jabfloor 100**	**Jabfloor 150**	**Jabfloor 200 & 250**
1.00	210	200	190	190
0.90	210	195	190	190
0.80	200	190	190	180
0.70	200	190	180	175
0.60	190	180	175	170
0.50	190	175	170	170
0.40	170	170	160	160
0.30	160	145	140	140
0.25	140	140	130	125
0.20	120	120	115	110
0.15	100	85	85	80

Table 2.6:

Thickness (mm) to achieve U-value 0.10 W/m^2K				
P/A Ratio*	**Jabfloor 70**	**Jabfloor 100**	**Jabfloor 150**	**Jabfloor 200 & 250**
1.00	320	320	300	300
0.90	320	320	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	275	260
0.30	275	260	250	240
0.25	260	240	240	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