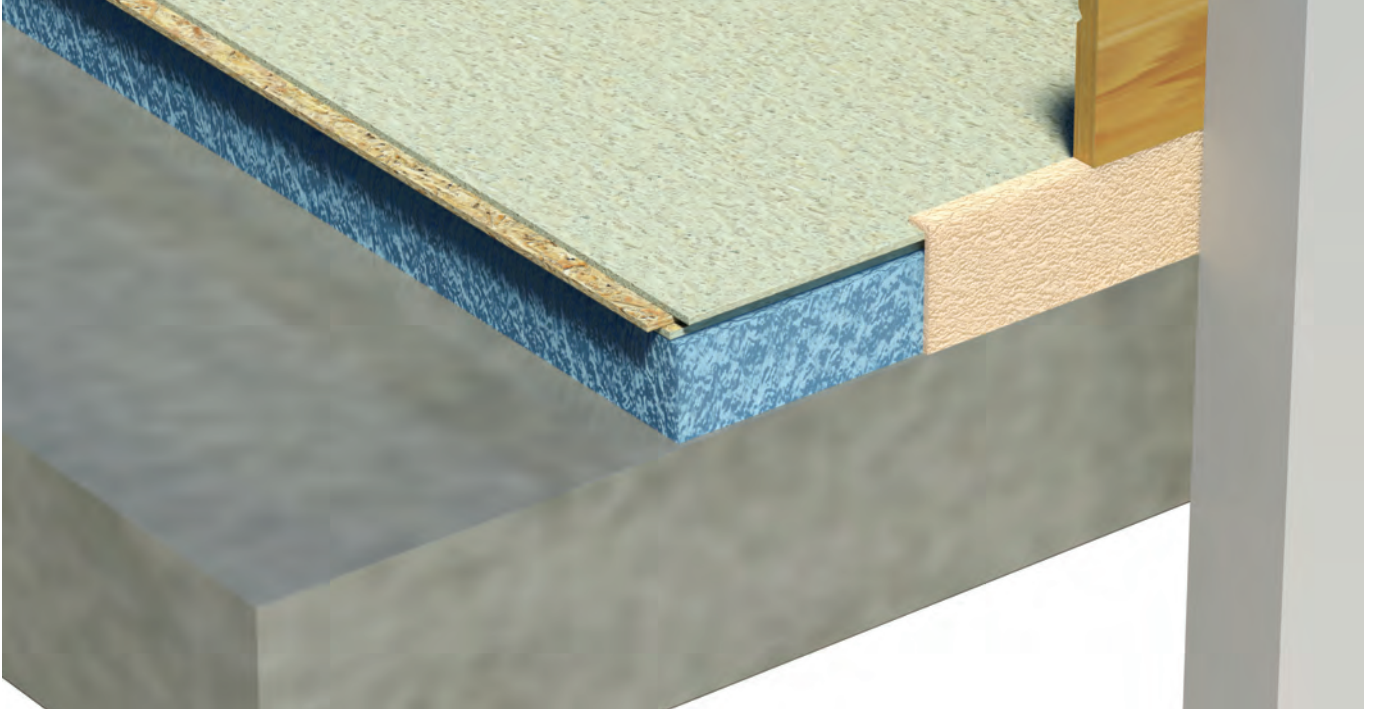


AIM Floor Units

Flooring grade T&G P5 chipboard – bonded to various insulants



AIM Floor Units are manufactured from moisture resistant P5 tongue & groove flooring grade chipboard bonded to insulation. The Units provide an integrated fully floating floor.

Specification

- High compressive strength
- Thermal and acoustic insulation
- P5 moisture resistant chipboard

Choice of Insulation

Lamella

Lamellas are made from high density rock fibre slab, which is cut into blocks and rotated through 90 degrees before being bonded to the P5 chipboard facing. Lamella rock fibre is incombustible and is especially suitable for acoustic applications.

Extruded Polystyrene (XPS)

Small closed cell extruded polystyrene for optimum insulation, high compressive strength and resistance to moisture.

Expanded Polystyrene (EPS)

Versatile expanded polystyrene for optimum value and light weight, available in EPS100 (was HDN) for normal traffic areas or EPS70 (was SDN) for light traffic areas.

Compression Resistant Rockfibre

High density acoustic grade resilient rock fibre insulation slab.

Application

AIM Floor Units are simple to install and will take up minor imperfections in the surface on which they are to be laid. AIM Floor Units provide excellent thermal insulation and are suitable for both suspended floors and for ground floors. They can be installed quickly and easily, with no need to raise existing floors, and offer minimum disruption to other trades or to the existing structure. The Floor Units are installed over a structural floor for new build or conversions.

Acoustic

AIM Floor Units utilising lamella or compression resistant rockfibre provide excellent airborne and impact sound reduction to help meet the Building Regulations. In this case the units should be isolated from the walls so that they have no direct contact by utilising AIMcoustic PE Isolation strip around the perimeter of the floor. The T&G joints should be tightly glued.

P/A ratios for on ground floors to achieve 0.25 W/m²K U value, with Extruded Polystyrene Floor Units

XPS thickness mm	30	40	50	60	70
P/A ratio	3.25	3.25	3.25	2.07	2.07
XPS thickness mm	1.31	0.96	1.27	1.07	0.82
P/A ratio	1.18	0.86	1.14	0.98	0.75

Uf value (W/m²K) of suspended floor with Extruded Polystyrene Floor Units - internal unheated room underneath

XPS Thickness	Joisted timber with ceiling under	Concrete beam and block floor	Reinforced Concrete slab 150mm thick
0	1.24	2.08	2.38
17	0.70	0.91	0.97
30	0.56	0.68	0.71
40	0.48	0.57	0.59
50	0.42	0.49	0.51
60	0.38	0.43	0.44
70	0.34	0.38	0.39
80	0.31	0.35	0.35
90	0.29	0.32	0.33
100	0.27	0.30	0.30

P/A ratios for on ground floors to achieve 0.25 W/m²K U value, with Extruded Polystyrene Floor Units

Extruded Polystyrene Thickness mm	Concrete beam and block floor		Reinforced Concrete slab 150mm thick	
Ventilation opening area per unit perimeter of underfloor space m ² /m	0.0015	0.003	0.0015	0.003
	P/A RATIO	P/A RATIO	P/A RATIO	P/A RATIO
17	0.12	0.11	0.12	0.11
30	0.15	0.13	0.14	0.13
40	0.17	0.15	0.16	0.15
50	0.2	0.18	0.19	0.18
60	0.24	0.22	0.23	0.22
70	0.31	0.29	0.29	0.27
80	0.42	0.39	0.4	0.36
90	0.57	0.5	0.52	0.46
100	0.92	0.82	0.82	0.73

Installation

Handling & Storage

AIM Floor Units are easy to handle, but should be treated with relative care. They should be stored in dry conditions. Should indoor storage be impossible the product should be stacked clear of the ground and covered with a stout tarpaulin. Boards which have become wet should not be installed.

Conditioning

The Floor Units should be conditioned for two to three days prior to installation. This process must take place in the area and atmospheric condition in which they will be installed. Flooring grade chipboard will expand or contract according to moisture content; conditioning allows the chipboard surface of the floor units to adjust to the atmospheric moisture of its surroundings.

Prevention of moisture ingress

Any significant changes in moisture content after the boards are installed will cause dimensional change in the floor units. Therefore the building must be substantially weather-tight before installing the floor units; in other words all the doors and windows must be fitted - this is also an NHBC requirement. Where the AIM Floor Units are being laid on a ground floor, or onto new concrete or screed, a polythene vapour barrier should be installed above the sub floor to prevent moisture ingress from below. During installation, the Floor Units must be protected from wet trades and water spillage; in service the Floor Units should be protected from exposure to moisture attack from above by the use of waterproof floor coverings especially in wet areas such as bathrooms and kitchens. Floor Units are not suitable for wet trade overlays.

Expansion Gaps - general

A minimum 5mm gap should be left between the Floor Units and perimeter walls or partitions; this gap should be filled with Aimcoustic PE Isolation Strip. In order to ensure that this gap is maintained, spacers should be placed between units and walls, but these must be removed after floor units have been laid. Pipes or other services penetrating the floor units must also be provided with an expansion gap.

Expansion Gaps - long corridors (& other long runs) Where the length of run of AIM Floor Units equals or exceeds 12 metres an intermediate 10mm movement joint is required, filled with two layers of Aimcoustic PE Isolation Strip, in addition to the perimeter gap. Thereafter the maximum allowable length between movement joints is 9 metres for end sections and 6 metres for intermediate sections.