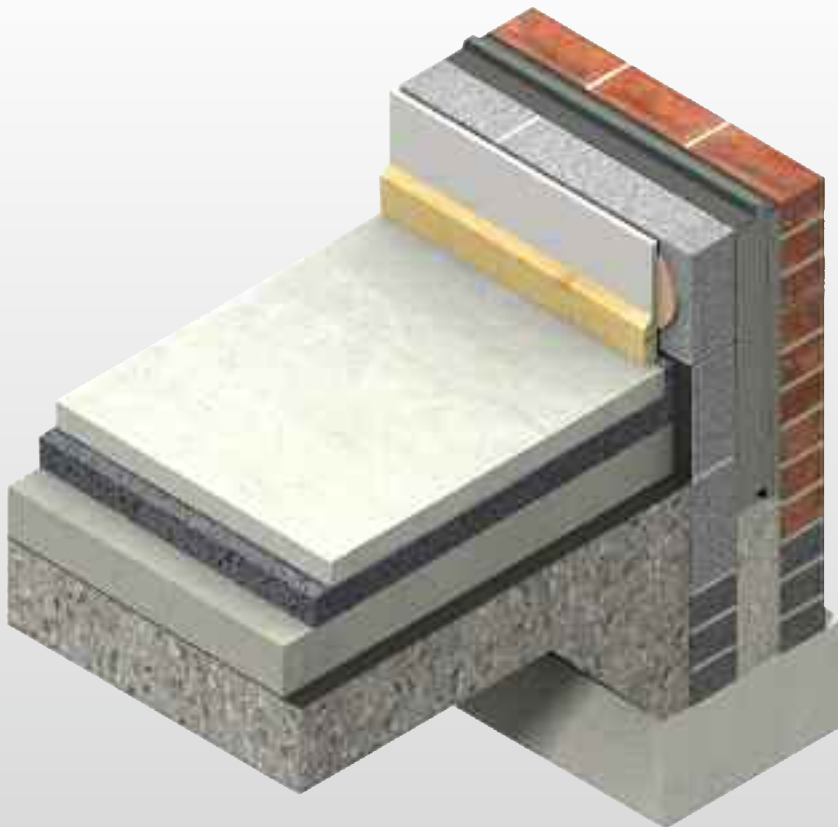




Aerofloor™ Platinum®

INSULATION FOR FLOORS



- High performance thermal insulation
- Suitable for installation in all weather conditions
- Suitable for use above or below slab
- No separating layer required
- Easy to handle and install
- CFC, HCFC & HFC - free
- Manufactured with a blowing agent that has zero ODP and low GWP
- Recyclable
- Contains recycled raw materials



*Low Energy –
Low Carbon Buildings*

Typical Constructions and U-values

Solid Concrete Ground Based Floors

Insulation Below Screed

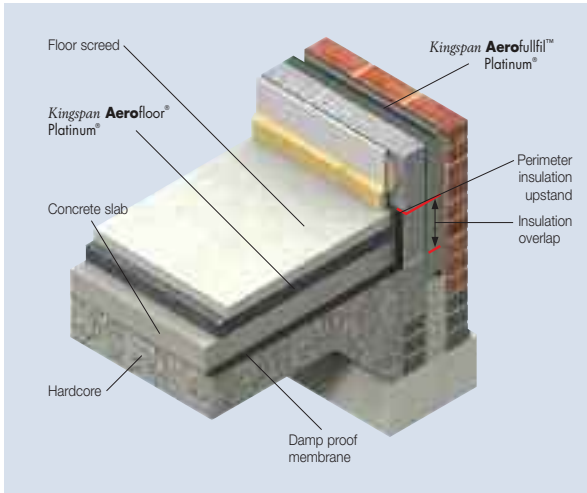


Figure 1

Insulant Thickness (mm)	Perimeter / Area (m ²)					
	0.2	0.3	0.4	0.5	0.6	0.7
25	-	-	-	-	-	-
40	-	-	-	-	-	-
50	0.25	-	-	-	-	-
60	0.23	-	-	-	-	-
75	0.20	0.23	0.25	-	-	-
100	0.17	0.19	0.21	0.22	0.23	0.23
120	0.16	0.17	0.19	0.19	0.20	0.20
150	0.13	0.15	0.16	0.16	0.17	0.17
200	0.11	0.12	0.13	0.13	0.13	0.13
250	0.09	0.10	0.10	0.11	0.11	0.11

Beam & Dense* Block Ground Floors

Insulation Below Screed.

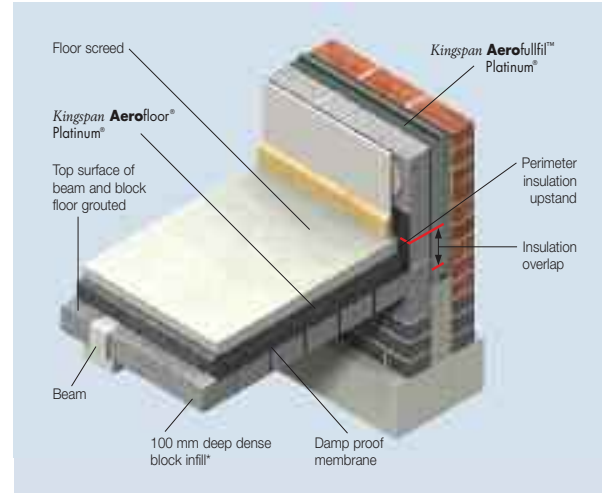


Figure 2

Insulant Thickness (mm)	Perimeter / Area (m ²)					
	0.2	0.3	0.4	0.5	0.6	0.7
25	-	-	-	-	-	-
40	-	-	-	-	-	-
50	-	-	-	-	-	-
60	0.24	-	-	-	-	-
75	0.22	0.24	0.25	-	-	-
100	0.19	0.20	0.21	0.22	0.22	0.23
120	0.17	0.18	0.19	0.19	0.19	0.20
150	0.14	0.15	0.16	0.16	0.16	0.17
200	0.12	0.12	0.13	0.13	0.13	0.13
250	0.10	0.10	0.10	0.11	0.11	0.11

* Calculations assume dense block infill of λ -value (1.13 W/m.K).

Design Considerations

Application

Kingspan Aerofloor™ Platinum® can be used in the following domestic, commercial and industrial ground floor applications:

- solid concrete floors;
- suspended beam and block floors;
- suspended timber floors; and
- under floor heating systems – below chipboard floating floor or below screed.

Green Guide Rating

Kingspan Aerofloor™ 70 Platinum® corresponds to the BRE Global Green Guide online generic specification 'Expanded polystyrene (EPS) – density 15kg/m³' (ref. 815320022) which achieves a summary rating of A+.

Kingspan Aerofloor™ 100 Platinum® corresponds to the BRE Global Green Guide online generic specification 'Expanded polystyrene (EPS) – density 20kg/m³' (ref. 815320023) which achieves a summary rating of A+.

Specification Clause

Kingspan Aerofloor™ Platinum® should be described in specifications as:

The floor insulation shall be *Kingspan Aerofloor™ Platinum®* _____, _____mm thick, manufactured to BS / I.S. EN 13163. NSAI approved expanded polystyrene boards to be installed according to Kingspan's instructions. Refer to NBS Plus, clause E20 200 (Proprietary Under Slab Insulation).

Building Regulation Requirements

The minimum required U-value for a ground floor is 0.25 W/m²K for Northern Ireland. The minimum required U-value for a ground floor is 0.21 W/m²K for Republic of Ireland'. These U-values should be seen as a guide only. Pre and post construction SAP / BER calculations are required to ensure compliance.

Note 1: 0.15 W/m²K is required where underfloor heating is used.

Site Work

Fixing Details

- The surface on which *Kingspan Aerofloor™ Platinum®* is installed should be smooth and level. A suitable radon or gas resistant membrane / DPM must be installed in accordance with the manufacturers instructions.
- Where a screed is placed on *Kingspan Aerofloor™ Platinum®* it must be minimum 65 mm sand / cement for domestic applications or 75 mm thick for other loadings. It is good building practice to use a minimum A98 reinforcing mesh. *Kingspan Aerofloor™ Platinum®*, subject to manufacturers guidelines, is also suitable for use under thin screed systems.
- *Kingspan Aerofloor™ Platinum®* can be shaped onsite to achieve 100% coverage of the floor area. It is recommended to fit the total depth of insulation in 2 layers, overlapping the joints to minimize thermal bridging. Care must be taken to install an insulation upstand at the perimeter and internal rising walls to further minimize thermal bridging.

Services

- Do not use *Kingspan Aerofloor™ Platinum®* boards in direct contact with PVC – sheathed electrical cables or hot water pipes. Electrical cables should be enclosed in suitable conduit.

General

Availability

- *Kingspan Aerofloor™ Platinum®* is available through insulation distributors and builders merchants throughout Ireland.

Handling and Storage

- Packs of *Kingspan Aerofloor™ Platinum®* are delivered to site wrapped in polythene. Store panels in original packaging, under cover and protected from direct sunlight. Keep boards above ground level and out of contact with solvents and materials containing volatile organic compounds such as coal tar, pitch or creosote. Do not expose to naked flame or other ignition sources during storage or installation.

Health and Safety

- The product is chemically inert and safe to use.

Product Details

Description

Kingspan Aerofloor™ Platinum® is a rigid high performance insulation board. This lightweight, closed cell product has excellent thermal insulation properties.

Standards and Approvals

Kingspan Aerofloor™ Platinum® has been awarded NSAI Agrément Certificate 04/0206.



Standard Dimensions

Kingspan Aerofloor™ Platinum® is available in the following standard sizes:

Nominal Dimension		Availability	
Length	(m)	1.8	2.4
Width	(m)	1.2	1.2
Insulant Thickness	(mm)	25+	

Physical Properties

Physical Properties	Value	
	<i>Kingspan Aerofloor™</i> 70 Platinum®	<i>Kingspan Aerofloor™</i> 100 Platinum®
Thermal Conductivity	0.031	0.031
Compressive Strength at 10% Deformation (kPa)	70	100
Water Vapour Resistance Factor (μ)	20-40*	
Water Vapour Permeability (mg/Pa.h.m)	0.018 - 0.036*	
Dimensional Stability	DS(N)5*	

* Quoted in accordance with BS / I.S. EN 13163: 2008

Durability

The thermal insulation properties of *Kingspan Aerofloor™* Platinum® will remain effective for the life of the building. It is a dimensionally stable product that is resistant to attack from bacteria, moulds and fungi, and will not provide nutrient value for insects or vermin. It is also non-toxic and non-irritant.

Moisture Resistance

Kingspan Aerofloor™ Platinum® can be laid in damp conditions without compromising its performance or longevity.

Fire Performance

A finished concrete floor containing *Kingspan Aerofloor™* Platinum® can be expected to be classified as Euroclass B.

Contact Details

Customer Service

For quotations, order placement, details of despatches and general enquiries.

Kingspan Aerobord Tel: +353 (0) 42 979 5000

Kingspan Springvale Tel: +44 (0) 2893 340203

email: info@kingspaninsulation.ie

Technical Advice / Design

Kingspan Insulation supports all of its products with a comprehensive Technical Advisory Service for specifiers, stockists and contractors.

Tel: +353 (0) 42 975 4297

Fax: +353 (0) 42 975 4296

email: technical@kingspaninsulation.ie



Aerobord Limited

Askeaton, County Limerick,
Ireland

www.kingspanaerobord.ie

Springvale Insulation Limited

75 Springvale Road, Ballyclare, County
Antrim, BT39 OSS

www.kingspanspringvale.co.uk

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