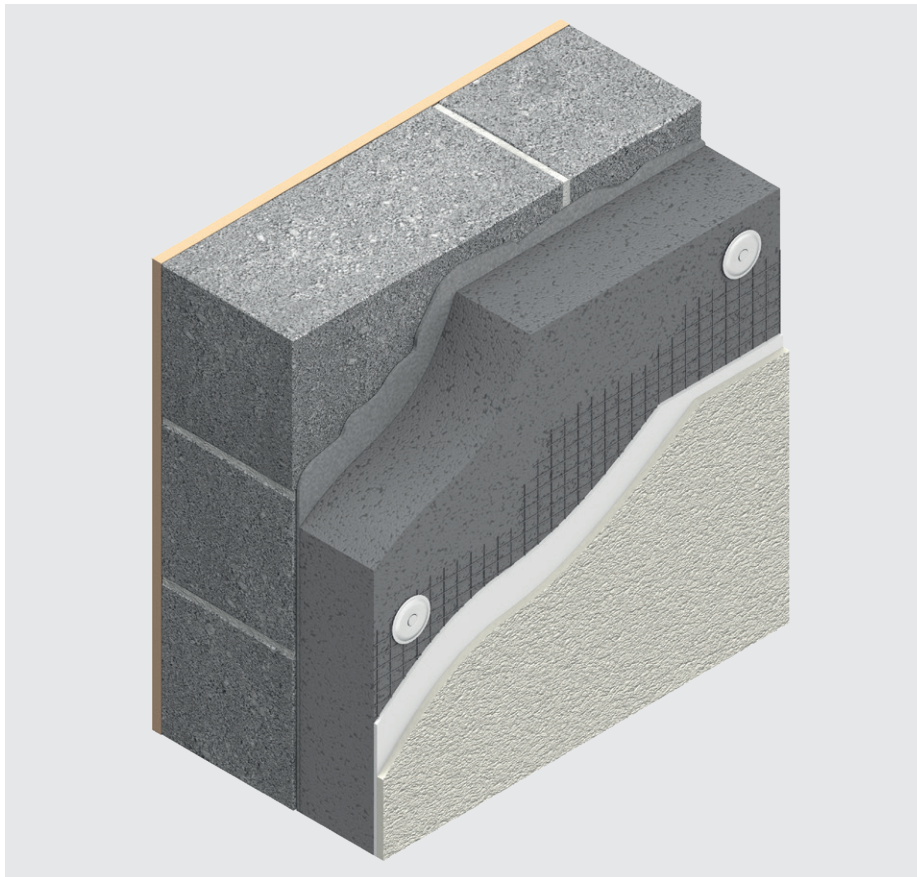


Aerowall® Platinum®

External insulation for masonry walls



- Graphite infused rigid expanded polystyrene (EPS) insulation
- Thermal conductivity of 0.031 W/mK
- Suitable for new build and refurbishments
- Installation by accredited installers

Typical constructions and U-values

Assumptions

The U-values in the tables that follow have been calculated using the method detailed in EN ISO 6946: 2017 (Building components and building elements. Thermal resistance and thermal transmittance. Calculation methods), and using the conventions set out in BR 443 (Conventions for U-value calculations). They are valid for the constructions shown in the details immediately above each table.

For the refurbishment examples, the internal wall finish is taken as 13 mm lightweight plaster unless stated otherwise. In all examples, the external wall rendered finish is taken to be a 10 mm polymer render.

NB When calculating U-values to EN ISO 6946: 2017, the type of mechanical fixing used may change the thickness of insulation required. These calculations assume telescopic tube fasteners with a thermal conductivity of 1.00 W/mK or less, the effect of which is insignificant.

NB For the purposes of these calculations the standard of workmanship has been assumed good, and therefore the correction factor for air gaps has been ignored.

NB The figures below are for guidance only. A detailed U-value calculation and a condensation risk analysis should be completed for each project.

NB For purpose of calculations, thermal conductivity of Kingspan EcoBead® Platinum® taken as 0.035 W/mK.

NB If your construction is different from those specified, and / or to gain a comprehensive U-value calculation along with a condensation risk analysis of your project, please consult the Kingspan Insulation Technical Service Department for assistance.

NB There are potential restrictions placed upon this product which vary dependent on building type, height, construction and location. For guidance regarding the routes to compliance for meeting the fire safety requirements of the building regulations / standards, contact technical services at technical@kingspaninsulation.ie.

U-value table key

Further information on the applicable notional and area weighted average limiting U-values is available in the relevant geographical documentation:

- Technical Guidance Document L (Dwellings) and Technical Guidance Document L (Buildings other than Dwellings) to the Building Regulations for the Republic of Ireland.
- Technical Booklets F1 & F2 to the Building Regulations for Northern Ireland.

New build - solid block wall

215 mm dense block* and Kingspan Aerowall® Platinum®

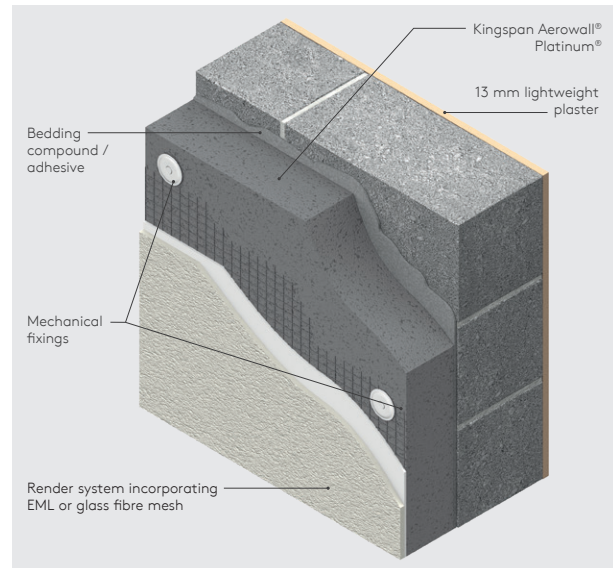


Figure 1

U-values for various thicknesses of Kingspan Aerowall® Platinum® and 215 mm dense block with 10 mm polymer render

Insulation thickness (mm)	U-value (W/m ² K)
100	0.27
130	0.21
160	0.18
200	0.14
300	0.10

* Calculations assume dense block of λ -value 1.13 W/mK.

NB A 6.6% thermal bridging factor has been assumed for the effect of mortar joints.

NB Refer to local distributor or Kingspan Insulation for current stock and non-stock sizes.

Typical constructions and U-values

Refurbishment

102.5 mm brick / 50 mm EcoBead® Platinum® filled cavity / 100 mm block* and Kingspan Aerowall® Platinum®

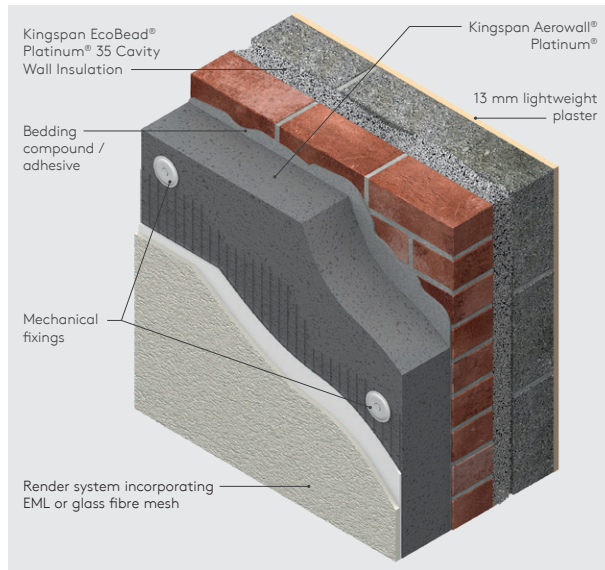


Figure 2

U-values for various thicknesses of Kingspan Aerowall® Platinum® and 102.5 mm brick / 50 mm EcoBead® Platinum® filled cavity / 100 mm block with 10 mm polymer render

Insulation thickness (mm)	U-value (W/m ² K)
60	0.26
90	0.20
110	0.18
150	0.15
200	0.12
240	0.10

* Calculations assume dense block of λ -value 1.13 W/mK.

NB A 6.6% thermal bridging factor has been assumed for the effect of mortar joints.

NB Refer to local distributor or Kingspan Insulation for current stock and non-stock sizes.

Product details and design considerations

Responsible sourcing

Kingspan Aerowall® Platinum® produced at Kingspan Aerobord Ltd., Askeaton (Co. Limerick) manufacturing facility is manufactured under a management system certified to ISO 14001: 2015 (Environmental Management System).

Specification clause

Kingspan Aerowall® Platinum® should be described in specifications as:-

The cavity wall insulation shall be Kingspan Aerowall® Platinum® ____ mm thick: comprising a rigid expanded polystyrene board. The product shall be manufactured in accordance with the requirements of BS EN 13163: 2012 + A2: 2016; and installed in accordance with the instructions issued by them.

Description

Kingspan Aerowall® Platinum® insulation boards can be used as part of an approved external Insulation system on new or existing buildings. The insulation boards are suitable for adhesive and / or mechanical fixing in accordance with the system holders approval.

Product information

Standard dimensions	Aerowall Platinum
Board size (mm)	1200 x 600 and 1000 x 500
Thickness (mm)	Refer to local distributor or Kingspan Insulation current stock and non-stock sizes.

Compressive strength

The declared compressive strength of Kingspan Aerowall® Platinum® is 70 kPa, when tested to EN 826 (Thermal insulating products for building applications. Determination of compression behaviour).

Application

Kingspan Aerowall® Platinum® is manufactured in accordance with BS EN 13163: 2012 + A2: 2016 (Thermal insulation products for buildings. Factory made expanded polystyrene (EPS) products. Specification).

Kingspan Aerowall® Platinum® produced at Kingspan Aerobord Ltd., Askeaton (Co. Limerick) manufacturing facility is manufactured under a management system certified to ISO 9001: 2015 (Quality management systems), ISO 14001: 2015 (Environmental Management Systems), ISO 45001: 2018 (Occupational Health and Safety Management Systems), ISO 50001: 2018 (Energy management systems) and ISO 37301: 2021 (Compliance management systems).

Availability

Kingspan Aerowall® Platinum® is available through specialist insulation distributors and selected builders merchants throughout Ireland and Northern Ireland.

Durability

If correctly installed, Kingspan Aerowall® Platinum® can have an indefinite life. Its durability depends on the supporting structure and the conditions of its use.

Resistance to solvents, fungi and rodents

It is a dimensionally stable product that is resistant to attack from bacteria, mould and fungi, and will not provide nutrient value for insects or vermin. It is also non-toxic and non-irritant.

Fire performance

Kingspan Aerowall® Platinum® achieves European Classification Euroclass E when classified to EN 13501-1: 2018 (Fire classification of construction products and building elements. Classification using data from reaction to fire tests).

Further details on the fire performance of Kingspan Insulation products may be obtained from the Kingspan Insulation Technical Service Department (see rear cover).

Thermal properties

The λ -values and R-values detailed below are quoted in accordance with EN 13165: 2012 + A2: 2016 (Thermal insulation products for buildings. Factory made rigid polyurethane foam (EPS) products. Specification).

Thermal conductivity

The boards achieve a thermal conductivity (λ -value) of: 0.031 W/mK.

Thermal Resistance

Thermal resistance (R-value) varies with thickness and is calculated by dividing the thickness of the board (expressed in metres) by its thermal conductivity. The resulting number is rounded down to the nearest 0.05 (m²K/W).

Sitework

Handling and storage

The polyethylene packaging of Kingspan Insulation products, which is recyclable, should not be considered adequate for outdoor protection. Ideally, boards should be stored inside a building. If, however, outside storage cannot be avoided, then the boards should be stacked clear of the ground and covered with an opaque polythene sheet or weatherproof tarpaulin 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.

Services

Do not use Kingspan Aerowall® Platinum® in direct contact with PVC sheathed electrical cables or hot water pipes. Electrical cables should be enclosed in a suitable conduit.

Installation guide

The surface on which Kingspan Aerowall® Platinum® is installed should be smooth and level.

Health and Safety

- Kingspan Insulation products are chemically inert and safe to use.
- Do not stand on or otherwise support your weight on this product unless it is fully supported by a load bearing surface.

Contact details

Aerobord Ltd

Askeaton | Co. Limerick | V94 EK16

Kingspan Insulation Ltd

Castleblayney | Co. Monaghan | A75 X966

Customer service and sales enquiries

T: +353 (0) 61 604 600

E: info@kingspaninsulation.ie

www.kingspaninsulation.ie

For individual department contact details please visit
www.kingspaninsulation.ie/contact

Technical and specification enquiries

Kingspan Insulation supports all of its products with a comprehensive Technical Advisory Service.

T: +353 (0) 42 975 4297

E: technical@kingspaninsulation.ie



For the most up-to-date version of this document, please scan or click [here](#).

To access pre-existing product information or information relating to previously sold/discontinued products please email literature@kingspaninsulation.ie.

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