Kingspan Facades
UK & Ireland

Protected by Kingspan QuadCore® Assured

QuadCore® Evolution Axis Wall Panel

Product Data Sheet

Panelised Facade System

POWERED BY QuadCore® TECHNOLOGY

Kingspan®

Product Data

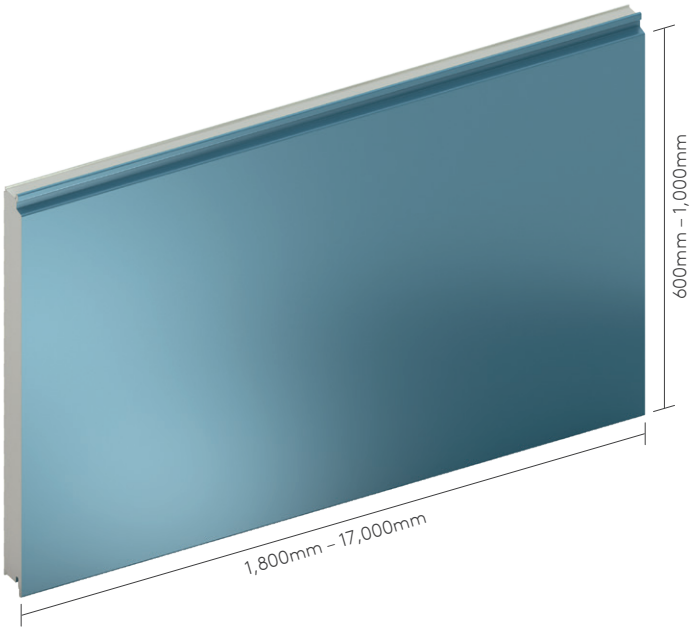
Applications

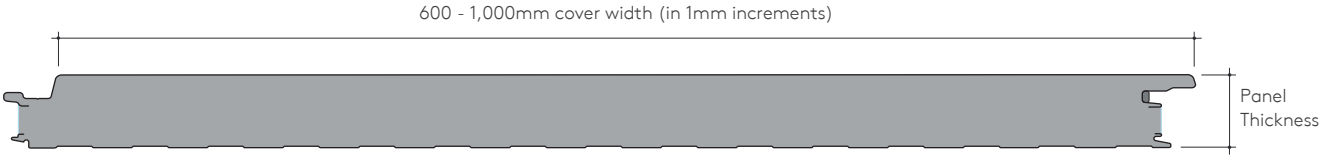
QuadCore® Evolution Axis Wall Panel is a secret-fix insulated wall panel delivering a clean, smooth, unprofiled and aesthetically appealing modern solution.

Available Lengths

Standard Lengths (m)	1.8 - 12.0
Longer Lengths (non-standard) (m)	12.0 - 17.0
Shorter Lengths (non-standard) (m)	Below 1.8

Note: Additional costs and transport restrictions may apply for non-standard lengths. All lengths may change for export (outside of the UK).





Dimensions, Weight & Thermal Performance

Core Thickness (mm)	45	54	60	70	74	80	88	100	120	140	150
U-Value (W/m²K)	0.46	0.35	0.32	0.27	0.25	0.23	0.21	0.19	0.15	0.13	0.12
Weight (kg/m²)	9.9	10.3	10.5	10.9	11.0	11.3	11.6	12.0	12.8	13.5	13.9

The QuadCore® insulation used in QuadCore® Evolution Axis Wall Panels has a Thermal Conductivity (λ) of 0.018W/m.K

QuadCore® Evolution Axis Wall Panels have a Thermal Transmittance (U-Value), calculated using the method required by the Building Regulations Part L2 (England & Wales), Building Standards Section 6 (Scotland), Part L (Republic of Ireland) and Part F2 (Northern Ireland).

Insulation Core

QuadCore® Evolution Axis Wall Panels are manufactured with an HCFC, CFC and HFC free QuadCore® insulation core.

POWERED BY QuadCore® TECHNOLOGY

Certification and Testing

Reaction to Fire

QuadCore® Evolution Axis Wall Panel is classified B-s1,d0, when tested on the internal face of the product, according to the European Reaction to Fire classification system (Euroclasses) EN 13501-1:2018 under the certified name AWP Product Family when using the following internal liners:

- CLEAN*safe* 15, CLEAN*safe* 25, CLEAN*safe* 55, CLEAN*safe* 120 and AQUA*safe* 55.

Please contact Kingspan Tech-eXchange for information relating to the external face.

Fire Resistance

Fire resistance classifications are subject to panel thickness, orientation, method of assembly, and steel coating. Please contact Kingspan Tech-eXchange for project specific details.

Insurer Approvals

QuadCore® Evolution Axis Wall Panel is tested to:

- LPS 1181 Part 1: Issue 1.2 Requirements and tests for built-up cladding and sandwich panel systems for use as the external envelope of buildings certified to:
  - LPS 1181-1 Grade EXT-B under the certified name Kingspan IPN QuadCore® Benchmark Evolution for thicknesses 45 – 150mm.
- FM 4880 approval standard for class 1 fire rating of building panels or interior finish materials under the certified names KS900 Benchmark Evolution and KS1000 Benchmark Evolution for thicknesses 45 – 150mm.
- FM 4881 approval standard for class 1 exterior wall systems under the certified names KS900 Benchmark Evolution and KS1000 Benchmark Evolution for thicknesses 45 – 150mm.
- FM 4882 approval standard for class 1 interior wall and ceiling materials or systems for smoke sensitive occupancies under the certified names KS900 Benchmark Evolution and KS1000 Benchmark Evolution for thicknesses 45 – 150mm.

Insurer approvals are large scale testing regimes that provide objective third-party testing, which is underpinned by quarterly, bi-annual and annual factory surveillance audits (depending on the region) to verify compliance. Insurer approvals are subject to panel thickness, cover width, orientation, method of assembly, steel coating and manufacturing facility. Please contact Kingspan Tech-eXchange for further information.

FM APPROVED

LPCB

LPS 1181-1: Issue 1.2
Cert: 186f & 260f
LPCB Ref: 260f/02

Environmental

Kingspan Insulated Panels produced in the UK are certified to BES 6001 (Framework Standard for the Responsible Sourcing of Construction Products) 'Very Good'. QuadCore® Insulated Panel systems have Environmental Product Declarations in accordance with the requirements of EN 15804:2012+A1: 2013 for 100mm thickness. QuadCore® Evolution Axis Wall Panel EPD available under the name BENCHMARK QuadCore® Evolution Insulated Panel.

All Kingspan Insulated Panels manufacturing facilities across the UK and Ireland are 100% Net Zero Energy. In addition, facilities located in Kingscourt, Holywell and Sherburn generate renewable energy onsite which contributes to that sites energy mix.

Kingspan Insulated Panels procure steel that is made from 15 – 25% recycled content. Kingspan insulated panels directly contribute to BREEAM® / LEED® credits.

Air Leakage

An air leakage rate of $3m^3/hr/m^2$ at 50Pa or less can be achieved when using Kingspan insulated roof and wall panels.

For information on detailing required to achieve lower air leakage rates please contact Kingspan Tech-eXchange.

Acoustic

Sound Reduction Index (SRI)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
SRI (dB)	20	15	17	23	18	25	40	46

QuadCore® Evolution Axis Wall Panels have a single figure weighted sound reduction Rw = 24dB. Results are based on panels of similar profile and core material.

Product Data

Materials

Substrate

Metallic protected steel to BS EN 10346: 2015.

Please contact Kingspan Tech-eXchange for information on other substrates.

Coatings – External Weather Sheet

- Kingspan Spectrum: Consists of a coated semi-gloss finish with slight granular effect.
- Kingspan Altaris: Technically advanced PVDF multi-layer (up to 4 layers of paint) coating featuring colour purity, strength, resistance and stability.

For Reaction to Fire performance of external weather sheets please contact Kingspan Tech-eXchange.

Coatings – Internal Liner Sheet

- Kingspan CLEAN*safe* 15: The coating has been developed for use as the internal lining of insulated panels. Standard colour is "bright white" with an easily cleaned surface.
- Kingspan CLEAN*safe* 120: The coating has been developed for use as the internal lining of insulated panels where a high level of cleanliness and hygiene is required, and the panels are to be cleaned down on a regular basis.
- Kingspan AQUA*safe* 55: The coating has been developed for use as the internal lining of insulated panels to swimming pool internal environments.

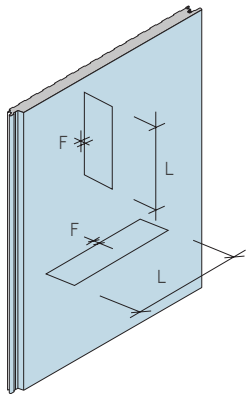
For Reaction to Fire performance of internal liners please see Certification and Testing section.

Product Tolerances

Cut to Length	± 5mm
Cover Width	± 2mm
Thickness (Core ≤ 100mm)	± 2mm
Thickness (Core > 100mm)	± 2%
End Squareness	± 3mm

Flatness Tolerances

L (mm)	200	400	700
F (mm)	0.6	1.0	1.5



Seals

Factory applied side joint seals. All side joints have a factory applied seal fitted into the groove to automatically seal the joint between panels.

Quality & Durability

QuadCore® Evolution Axis Wall Panels are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, complying with BS EN ISO 9001 standard, ensuring long term reliability and service life. The panels are also being manufactured under Environmental Management System Certification BS EN ISO 14001, Energy Management System Certification BS EN ISO 50001 and Occupational Health and Safety Certification BS EN ISO 45001. QuadCore® Evolution Axis Wall Panels are CE marked to BS EN 14509: 2013.

CE

Warranty

QuadCore® Assured Panel Warranty

- 25 years insurance backed thermal performance
- 25 years insurance backed fire performance
- 25 years structural performance
- 25 years environmental performance
- Up to 40 years coating performance

QuadCore® Assured System Warranty

- 25 years insurance backed thermal performance
- 25 years insurance backed fire performance
- 25 years structural performance
- 25 years environmental performance
- Up to 40 years coating performance
- 25 years warranty on system accessories*

*Please contact Kingspan Tech-eXchange or refer to the 'QuadCore® Assured' brochure for a list of accessories covered by Kingspan.

Packing

QuadCore® Evolution Axis Panels are stacked with weather sheet upward. The top and sides are protected by either cardboard or polystyrene and spiral wrap stretch polyfilm. The number of panels in a pack will vary depending on thickness/length of panel.

Core Thickness (mm)	45	54	60	70	74	80	88	100	120	140	150
No. of Panels per Pack	25	20	18	16	14	13	12	11	9	7	5

Note: Applies to UK pack sizes. Please contact Kingspan Customer Service for export information.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional costs. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport to project site. Off-loading is the responsibility of the client.

Site Installation Procedure

Site assembly instructions and construction details are available from Kingspan Tech-eXchange.

Contact Details

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For the product offering in other markets please contact your local sales representative or visit www.kingspanpanels.com

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First Issue | 02/2022