

Insulated Panels
United Kingdom

Insulated Wall Panel Systems

AWP/RW



Protected by



Carrigaline Community School, Ireland



Insulated Wall Panel Systems

Introduction

Advanced building envelopes are frequently a challenging balance between sustainable building energy efficiency requirements to satisfy, and impactful, inspirational design. Products which marry the two; high performance and aesthetics, are at the heart of the Kingspan Insulated Panels portfolio and we continuously strive to innovate in both areas to deliver market-leading U-Values, maximise airtightness, while allowing architectural versatility to respond to design challenges and create an enduring legacy.

The walls of a building are key to the structure not only in configuration terms, but in energy efficiency, structural integrity and are also an expanse of opportunity for visual and aesthetic impact. In this booklet you'll find a snapshot of some of our Wall Panel Systems; Architectural Wall Panel (AWP) Systems and RW Trapezoidal Wall Panel Systems, as well as an overview in how these systems are comprised using Kingspan's own panel and ancillary products, and accessories.

Kingspan Technical and Design Services teams are also on hand to provide general and specific project support, with our Field Services team delivering complimentary, and NFRC-endorsed CITB* Panel Installation training on a scheduled and ad-hoc basis.

Your Kingspan Building Envelope System can also be protected with up to 40 years structural and thermal performance guarantee.

Available cores:



*NFRC National Federation of Roofing Contractors Ltd (UK) CITB Construction Industry Training Board (UK).



Higher performance powered by QuadCore™ Technology

Now available across Kingspan insulated wall panels systems

Our new QuadCore™ Trapezoidal wall panel brings you all the advantages of a Kingspan factory engineered system (significantly faster build speed, reduced time working at height, lifetime insulation continuity, consistent build quality) plus the additional performance of QuadCore™ Technology.

QuadCore™ Technology is Kingspan's next generation of self-blended insulation core with distinctive grey microcells, powering the highest insulated panel performance in the world today.



Find out more, watch our Introduction to QuadCore™ video here.

1

Unrivalled Thermal Performance

Class-leading aged lambda value of 0.018 W/m.K.

2

Superior Fire Protection

QuadCore™ Technology is a low smoke emissions solution. It is the only closed-cell insulation core to achieve FM 4882 certification (the FM Global insurance standard for smoke sensitive occupancies).

3

Enhanced Environmental Credentials

QuadCore™ Technology is 100% recyclable and is CFC, HCFC, HFC free while improved resource-efficiency means less truck movements to site.

4

Longest Performance Guarantee

QuadCore™ Technology carries a unique up to 40-year thermal and structural performance warranty. This provides guaranteed 'built-in' continuous insulation, lowering building lifetime heating and cooling costs.

1 Unrivalled Thermal Efficiency

QuadCore™ Technology is certified as the most thermally efficient closed-cell insulation core on the market.

Lifetime performance and value benefits

1. The class-leading aged lambda value of 0.018 W/m.K has the potential to reduce HVAC size, and lower both energy consumption and carbon emissions.
2. QuadCore™ Technology is a more streamlined solution relative to other insulation materials with associated benefits in interior space optimisation, transport, and ease of handling during construction.

2 Superior Fire Protection

The hybrid nature of QuadCore™ Technology delivers a range of unique improvements in fire performance.

Lifetime performance and value benefits

- QuadCore™ Technology is the only closed-cell insulation core to achieve FM 4882 certification (the FM Global insurance standard for smoke sensitive occupancies).
- QuadCore™ Technology also delivers improved fire resistance ratings leading to more cost-effective installations due to economies in steelwork and fixing, also improved spans, in certain applications.

3 Enhanced Environmental Credentials

The improved thermal performance of QuadCore™ Technology helps optimise resource efficiency. It is also 100% recyclable and is CFC, HCFC, HFC free and has a very low Global Warming Potential.

Lifetime Performance and Value Benefits

- QuadCore™ Technology, together with whole building design support from Kingspan's technical team, can help optimise performance in 'green building' ratings systems.
- The improved resource efficiency delivers better transport utilisation which means less truck movements to site.

4 40 Year Thermal & Structural Panel Guarantee

Complete QuadCore™ roof, wall or façade systems – where Kingspan has supplied the panel and all system ancillaries – have the additional security of a single-source system warranty from Kingspan.

Images shown are from an EN 11925-3 comparative test using a roofer's torch fire source.



Non-insurer approved PIR



QuadCore™ Technology



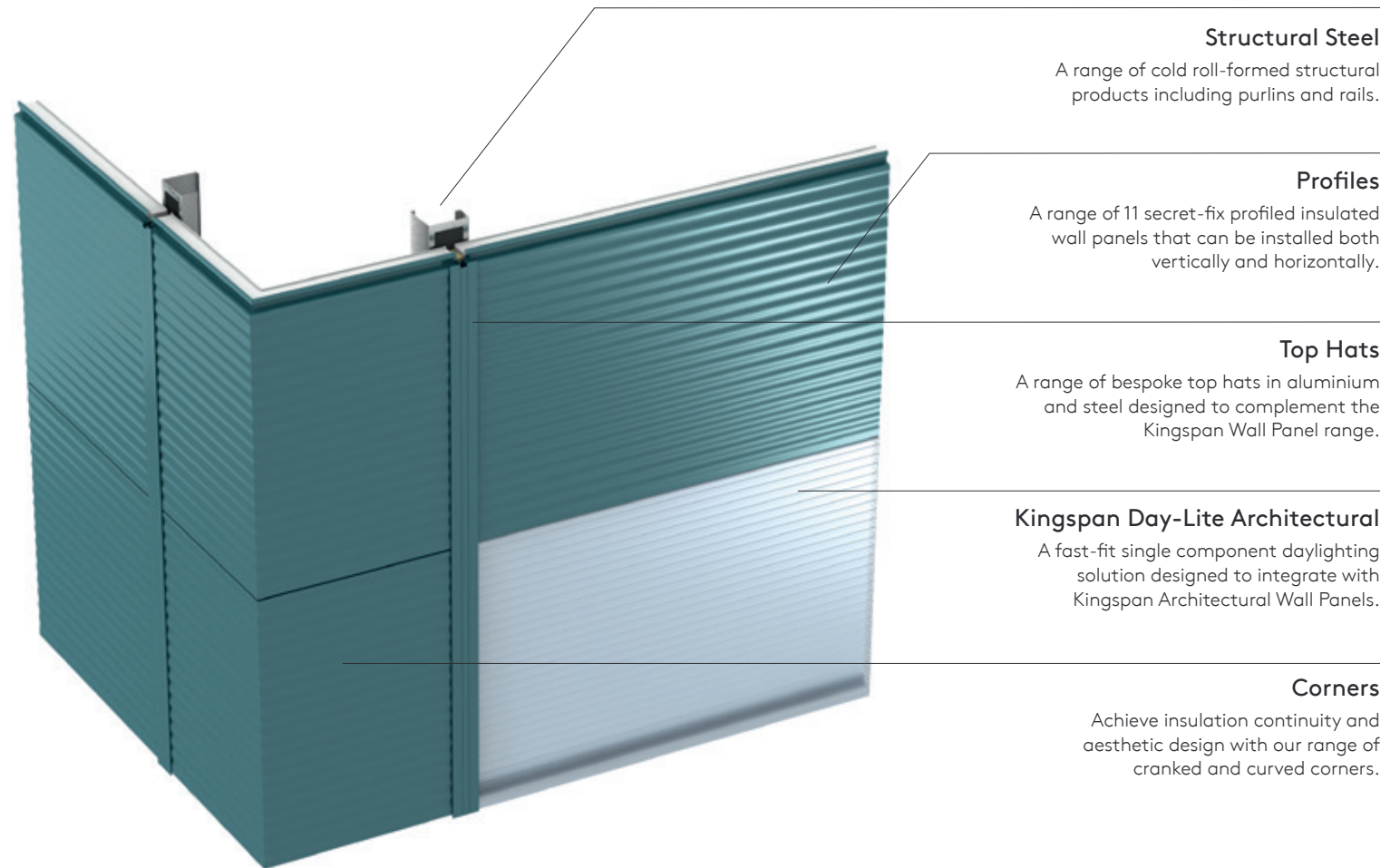
Blue Planet, Chatterley Valley, UK



Architectural Wall Panels

The Kingspan Architectural Wall Panels portfolio is designed to challenge perceptions of building with panel; to push aesthetic boundaries and demonstrate versatile, communicative, impactful building design and to unify the simplicity of panel construction with bold architectural statement.

When using Kingspan panels in to your build, there are clear benefits to using fully compatible Kingspan components to complete both the installation and finish to optimum standards.



Structural Steel

A range of cold roll-formed structural products including purlins and rails.

Profiles

A range of 11 secret-fix profiled insulated wall panels that can be installed both vertically and horizontally.

Top Hats

A range of bespoke top hats in aluminium and steel designed to complement the Kingspan Wall Panel range.

Kingspan Day-Lite Architectural

A fast-fit single component daylighting solution designed to integrate with Kingspan Architectural Wall Panels.

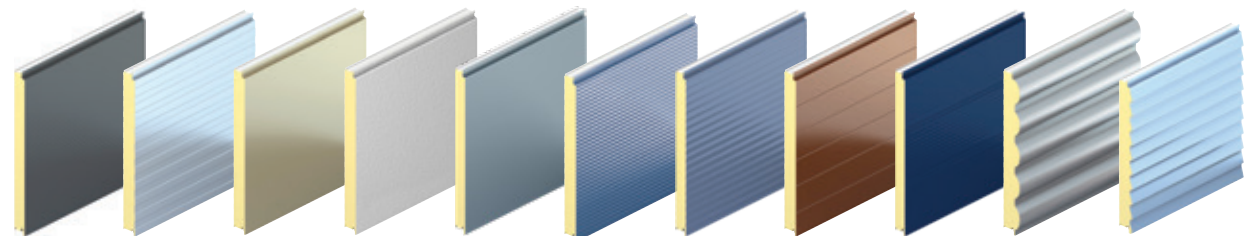
Corners

Achieve insulation continuity and aesthetic design with our range of cranked and curved corners.

Available cores:

PIR
FIREsafe
ECOsafE

POWERED BY
QuadCore™
TECHNOLOGY



Gazeley Altitude, UK



Energy from Waste Facility, UK



- 11 distinct profiles are available, providing comprehensive design choice.
- Longspan versions available (same profiles but with a greater spanning capability).
- High performance coatings in a wide range of colours for maximum visual impact.
- Complete range of system accessories available, from cold-rolled structural steel purlins to pre-formed corners.
- LPCB*, FM approved (AWP 900mm and 1000mm cover widths only).

* Longspan panels only
LPCB approved

The Hut Group Logistics Centre, UK
Installer: Keyclad Ltd



RW Wall System

Our popular RW Trapezoidal panel shows its true versatility in that it can be used for both wall and roof applications and in both vertical and horizontal orientations. Added efficiencies can be realised during your build as the RW Trapezoidal panel is available in up to 2 metre widths as well as up to 29 metres in length.

Completing the RW Trapezoidal Wall Panel System is also a comprehensive, Kingspan-manufactured range of structural steel products and system accessories.



Structural Steel

A range of cold roll-formed structural products including purlins and rails.

Trapezoidal Wall Panel

A through-fix, trapezoidal-profiled insulated wall panel. It is available in 1000mm and 2000mm widths and in lengths up to 29 metres.

Kingspan Day-Lite Trapezoidal

Precision extruded polycarbonate for easy integration with Kingspan Trapezoidal Wall Panels.

Flashings

From simple to bespoke flashings, we can help provide the finishing touch to any building envelope.

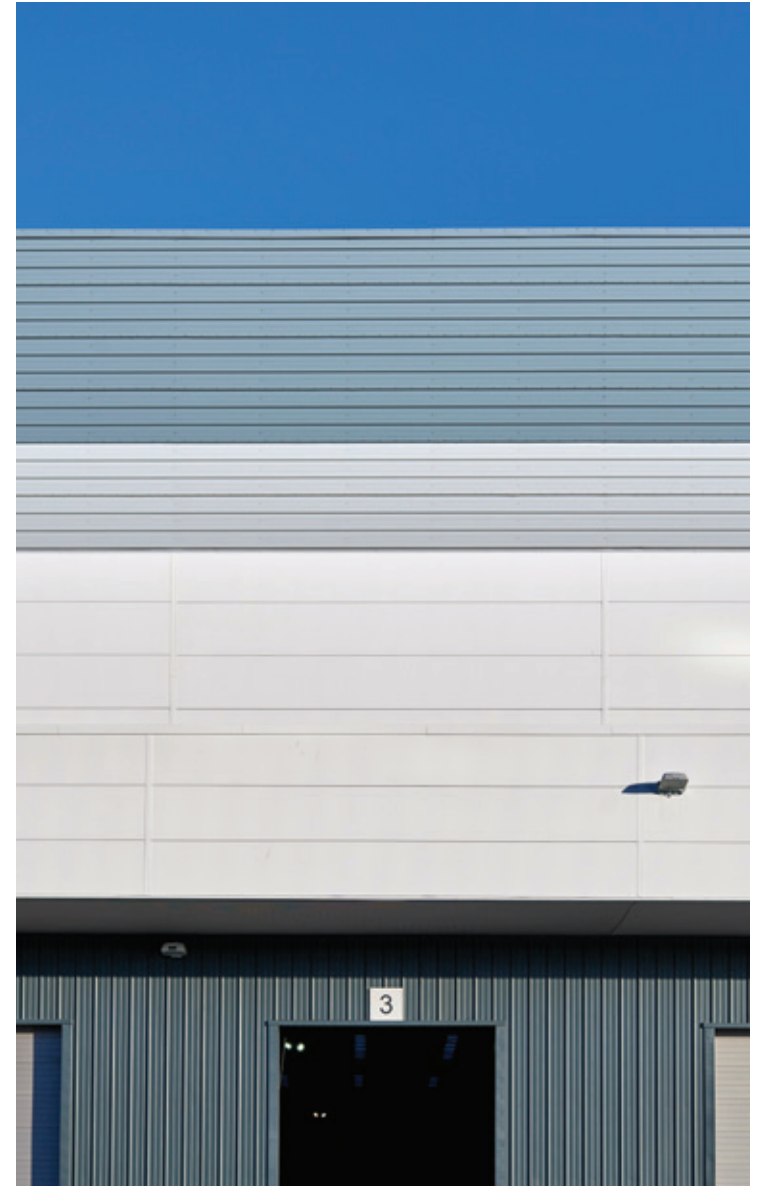
Available cores:

PIR

FIREsafe
ECOsafE

POWERED BY

QuadCore™
TECHNOLOGY





-
- High performance coatings, wide range of colours.
 - LPCB, FM approved* (KS1000 RW only).
 - Integrates with Kingspan Day-Lite Trapezoidal daylighting and other Kingspan fabrications.
 - Available as both 1m and 2m wide panels.

Fire Performance of Kingspan Insulated Panel Systems

Protection of people, buildings and contents is of paramount importance.

Kingspan FIREsafe® and ECOsafe® Insurer Certified insulated panel systems can achieve high levels of reaction to fire performance in tests specified for regulatory purposes, large scale tests developed by the insurance industry and large scale tests developed by other organisations including ISO, British Standards Institute (BSI) and the National Fire Protection Agency (NFPA).

Kingspan FIREsafe® and ECOsafe® Insurer-Certified insulated panel systems are extensively tested for fire resistance in a variety of test methods that include LPS 1208, ASTM E119, EN 1364 Parts 2 & 3, EN 1365 Part 2 and EN 1366 Part 3, achieving up to 3 hours fire integrity and 1 hour fire insulation.

QuadCore™ Technology is Kingspan's new bespoke hybrid insulation core, featuring a distinctive grey microcell structure. Self-blended by Kingspan, QuadCore™ Technology can deliver improved fire resistance performance as a result of the increased stability of the insulation when exposed to fire. For specific situations this can result in improved performance, greater spans and /or a reduction in fixings.

For more information, project and product support, contact our Fire Engineering Services Team on, fireinfo@kingspan.com and **+44 (0) 1352 716100**.

Real Fire Case Study — Audi Dealership



Inside of workshop showed no evidence of fire penetration.

One System
One Manufacturer
One Warranty

Complete high-performance wall systems, supplied by one manufacturer, supported by one warranty.



up to
40 years
Panel
Protection

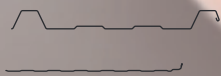
up to
40 years
Coating
Protection

up to
25 years
System
Component
Protection

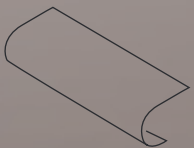
Secondary Steel



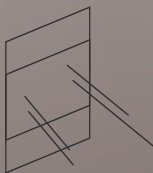
Insulated Panels



Specialist Fabrications



Daylighting



UK

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Kingspan Insulated Panels

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

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