

Kingspan Jindal

Product Portfolio

Architectural Facade
Systems

Panelised Facades
Rainscreen Facades



“We are committed to developing and delivering holistic facade systems that are rigorously tested, expertly managed and designed from the ground up to be highly aesthetic, healthy, safe, sustainable and futureproof.”

We are **Kingspan Jindal Facades**



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Kingspan Jindal Facades

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Introducing Kingspan

The Kingspan Group is a global leader in the design, development and delivery of advanced building envelope products and solutions.

4.4

billion Euro turnover
in 2018

129

global manufacturing
facilities

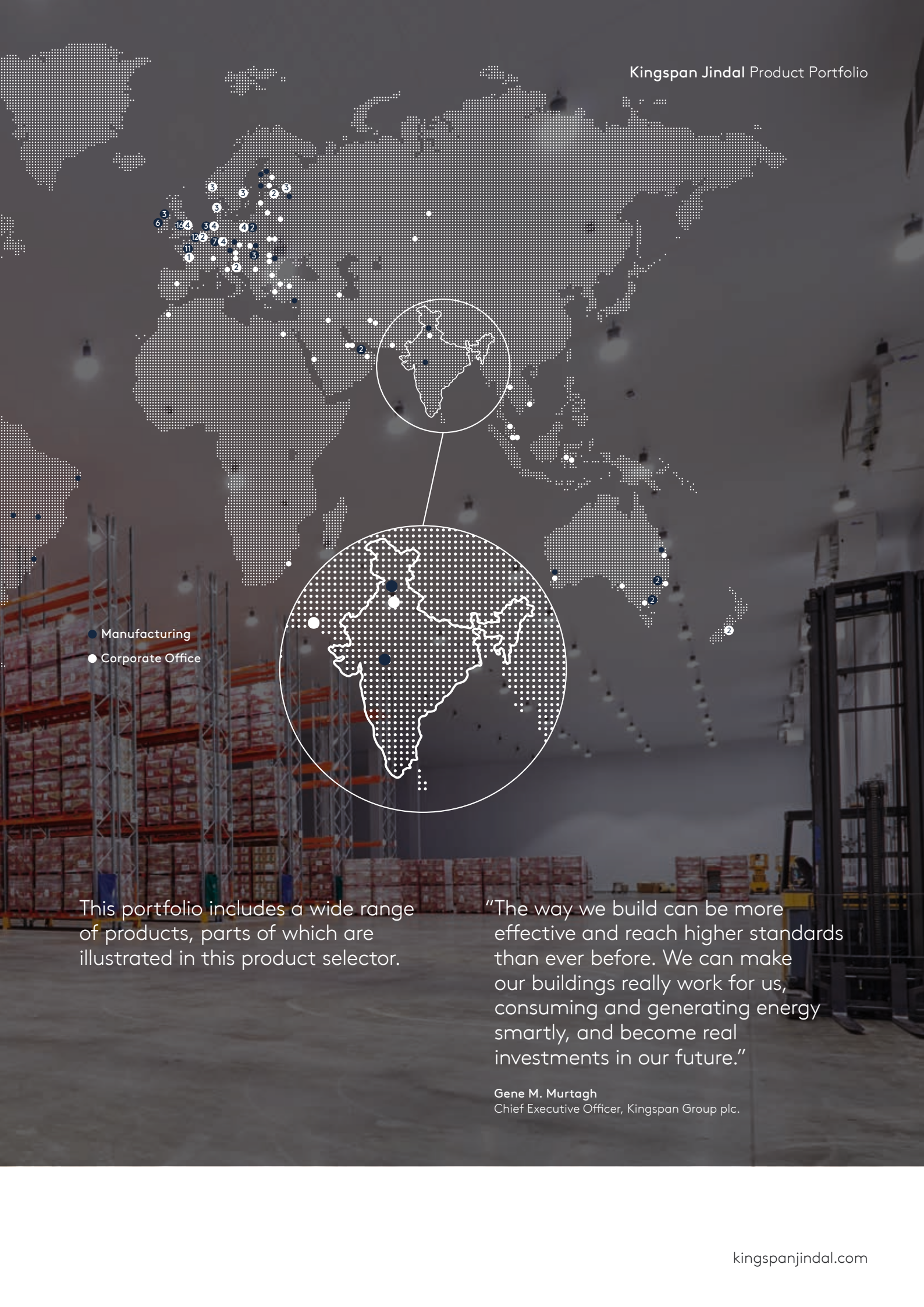
14,000+

employees worldwide

Kingspan Jindal at a Glance

The Kingspan Jindal partnership brings together Industry leading innovation and building technology know-how to create new high performance building solutions for India, Bangladesh, Nepal, Bhutan, Maldives, Seychelles, Mauritius and Sri Lanka.

An expanded portfolio containing innovative and aesthetically stunning products and systems enables Kingspan Jindal to deliver a broader range of solutions for a wide variety of applications and building types.



- Manufacturing
- Corporate Office

This portfolio includes a wide range of products, parts of which are illustrated in this product selector.

"The way we build can be more effective and reach higher standards than ever before. We can make our buildings really work for us, consuming and generating energy smartly, and become real investments in our future."

Gene M. Murtagh
Chief Executive Officer, Kingspan Group plc.

Kingspan Jindal Facades

Compliant high performance facades suitable for a multitude of architectural styles and storey heights- incorporating a full spectrum of insulation cores from traditional mineral fibre materials to more advanced PIR or IPN.



“Performance without Compromise.”



Kingspan Jindal Facade System

Our aesthetic offering is supported with solutions suitable for all storey heights that encompass advanced insulation core technology, alongside more traditional solutions.

Panelised Systems

Advanced Insulation Cores



IPN Karrier

Panelised Facade Systems represent a dramatic breakthrough in pre-engineered insulated wall panels delivering a clean, smooth aesthetically appealing modern solution. The system has a hidden joint detail which conceals fasteners from view and is available in various widths to suit any design.

- Continuous insulation
- Fastest build speed and ease of install
- Thermal conductivity as low as 0.018 W/m·K
- Fibre free
- BR 135 Compliance Assured options available

A-Rated Insulation Cores



K-Roc™ Karrier

K-Roc™ Karrier is an interlocking, stone wool core insulated panel designed to support the rainscreen system, creating a weathertight building envelope early on in the build programme.

- Build speed
- Thermal conductivity as low as 0.043 W/m·K
- Installability
- Notional period of fire resistance of up to 180 minutes integrity and insulation

Following the Hackitt review and MHCLG Part B consultation outcome, Kingspan Facades can provide solutions to meet all building height compliance requirements.

System Performance

Thermal

Panelised Facade System insulation cores provide superior thermal performance with tested U-values. Most importantly, the insulation is on the exterior of the building structure to provide the best possible thermal envelope by reducing thermal bridging typical of cavity wall systems.

In addition, the panels feature excellent insulation core-to-core contact, which provides an unbroken thermal shield against heat.

Fire

The panelised facade systems are widely recognised by investors, property insurers, designers and constructors for their superior fire performance and reducing the fire risk. The systems are tested and approved to European and country specific standards, complying with all relevant Building Regulations.

Acoustic

Panelised Facade Systems have a minimum single weighted sound reduction index R_w of 24 dB.

Superior Airtightness & Weathertightness

One of the biggest sources of building heat loss (or heat gain) is air leakage, i.e., 'leaky buildings'. Panelised Facade System is rigorously tested to ensure airtightness and weathertightness over the lifecycle of the building.

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

Structural

Panelised Facade Systems consist of two metal faces positioned on either side of a core that is a thermally insulating material, which is firmly bonded to both faces so that the three components act compositely when under load. The individual layers by themselves have limited flexural rigidity and cannot therefore bear loads but, by combining the two outer surface layers with the core, a shear rigid composite section is formed.





Hilton Garden Inn

Hilton Garden Inn

NOW OPEN

NOW OPEN

Kingspan Jindal Panelised Facade System

For buildings with a more linear facade, or where the design requires a simpler solution, Kingspan **Panelised Facade System** is a simple and effective single-component solution, that delivers aesthetically pleasing finishes with exceptionally fast install time.



Pilz Athlone, Ireland

Product: Panelised Facade System Axis &
Panelised Facade System Recess
Architect: Cook Architects





Kingspan Jindal Panelised Facade System
Panelised Facade System Axis

Panelised Facade System Axis

Panelised Facade System Axis is a highly streamlined, sleek unprofiled insulated panel system; the perfect solution if you are looking to achieve a minimalist facade on buildings with large flat surface areas. Smooth and flawless in appearance.

Standard lengths 1.8 to 11.8 m – for other lengths, please contact Kingspan Technical Services. Bespoke cover widths 600 mm to 1000 mm – in 1 mm (subject to MOQ) increments available 600/900/1000 mm standard sizes.

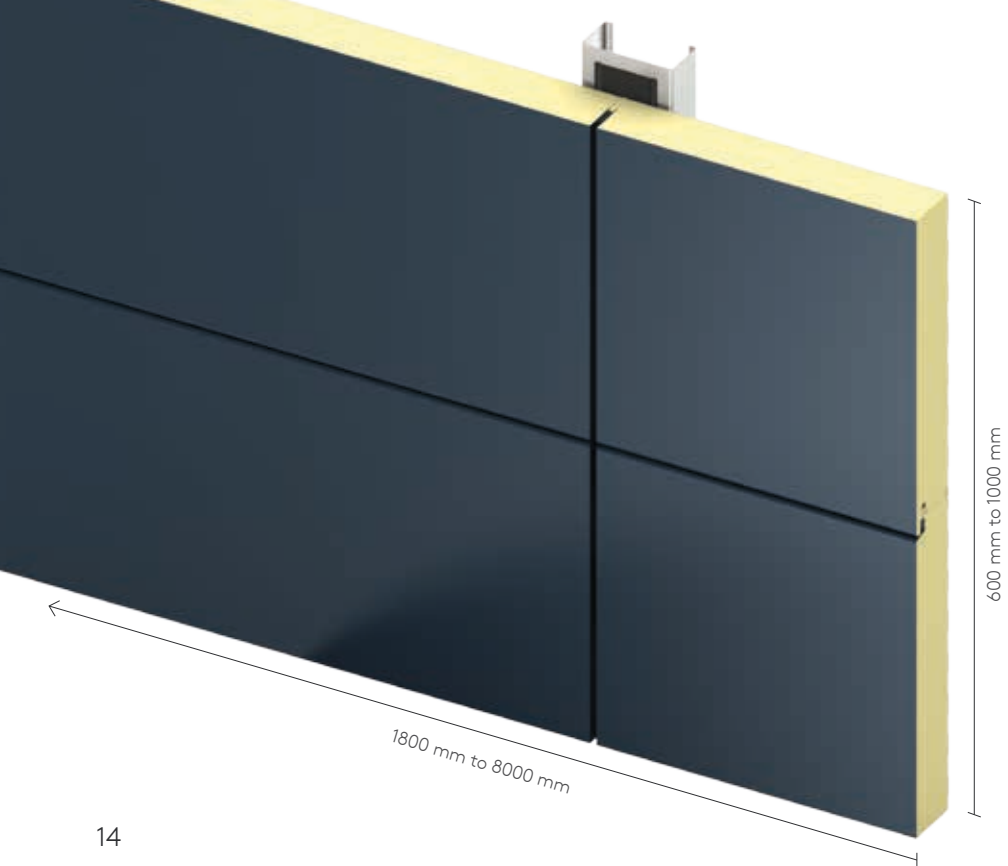
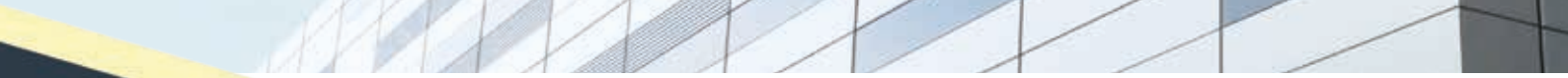
Performance U-value

Core Thickness (mm)	45	60	70	80	100	120	140	150
U-value (W/m ² K)	0.52	0.35	0.30	0.25	0.21	0.18	0.15	0.14
Weight kg/m ² 0.63/0.4 Steel	10.9	11.5	11.9	12.3	13.1	13.9	14.7	15.1



Verizon Roanok, Vermont, USA

Panelised Facade System Recess



Kingspan Jindal Panelised Facade System
**Panelised Facade
 System Recess**

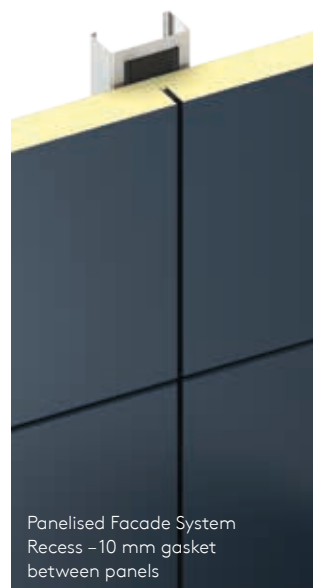
Panelised Facade System Recess

Panelised Facade System Recess features depth and dimension through the folding of the panel edge and the insertion of a 10 mm or 20 mm gasket between the panels, creating a unique 3D effect.

Standard lengths 1.8 to 8 m – for other lengths, please contact Kingspan Technical Services. Bespoke cover widths 600 mm to 1000 mm – in 1 mm (subject to MOQ) increments available 600/900/1000 mm standard sizes.

Performance U-value

Core Thickness (mm)	45	60	70	80	100	120	140	150
U-value (W/m ² K)	0.52	0.35	0.30	0.25	0.21	0.18	0.15	0.14
Weight kg/m ² 0.63/0.4 Steel	10.9	11.5	11.9	12.3	13.1	13.9	14.7	15.1



Vitens Logistics Centre Lelystad, Netherlands

Product: Panelised Facade System Multi-groove



Kingspan Jindal Panelised Facade System
Panelised Facade System Multi-groove



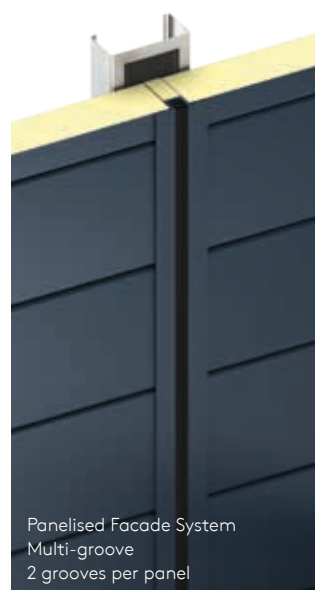
Panelised Facade System Multi-groove

Panelised Facade System Multi-groove is a premium flat panel that has one or two grooves engineered into its surface, creating subtle shadow lines on the building's facade and an illusion of smaller panel widths without the installation time constraints.

Standard lengths 1.8 to 11.8 m – for other lengths, please contact Kingspan Technical Services. Increments available, 900 mm and 1000 mm standard sizes.

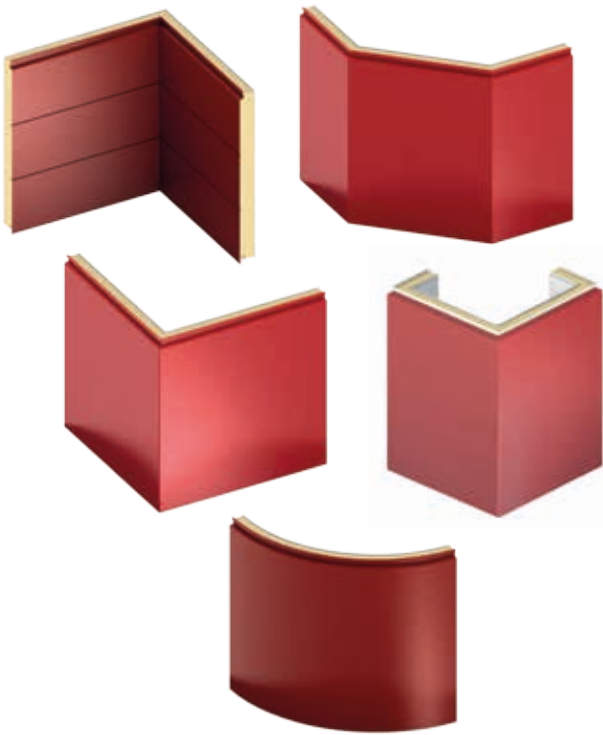
Performance U-value

Core Thickness (mm)	45	60	70	80	100	120	140	150
U-value (W/m ² K)	0.52	0.35	0.30	0.25	0.21	0.18	0.15	0.14
Weight kg/m ² 0.63/0.4 Steel	10.9	11.5	11.9	12.3	13.1	13.9	14.7	15.1



Curves & Corners

Curved elevations and neatly formed secret-fix corners are easily achieved with the Panelised Facade System range. Panels can be curved vertically and horizontally to create large sweeping elevations or used for more understated corner sections. Panels can also be cranked and mitred to form internal or external corner units or to create depth to a boxed and recessed window detail.



Flashings & Fabrications

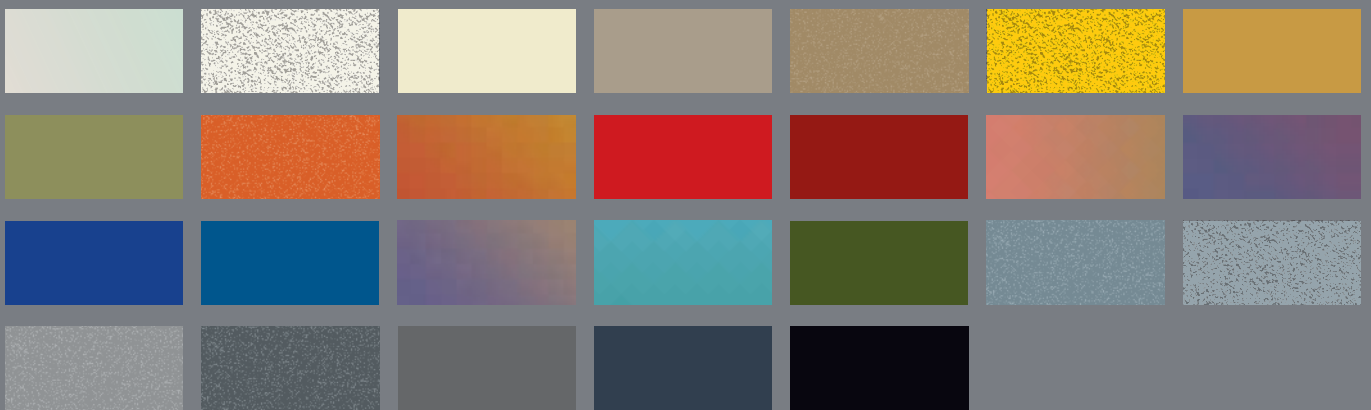
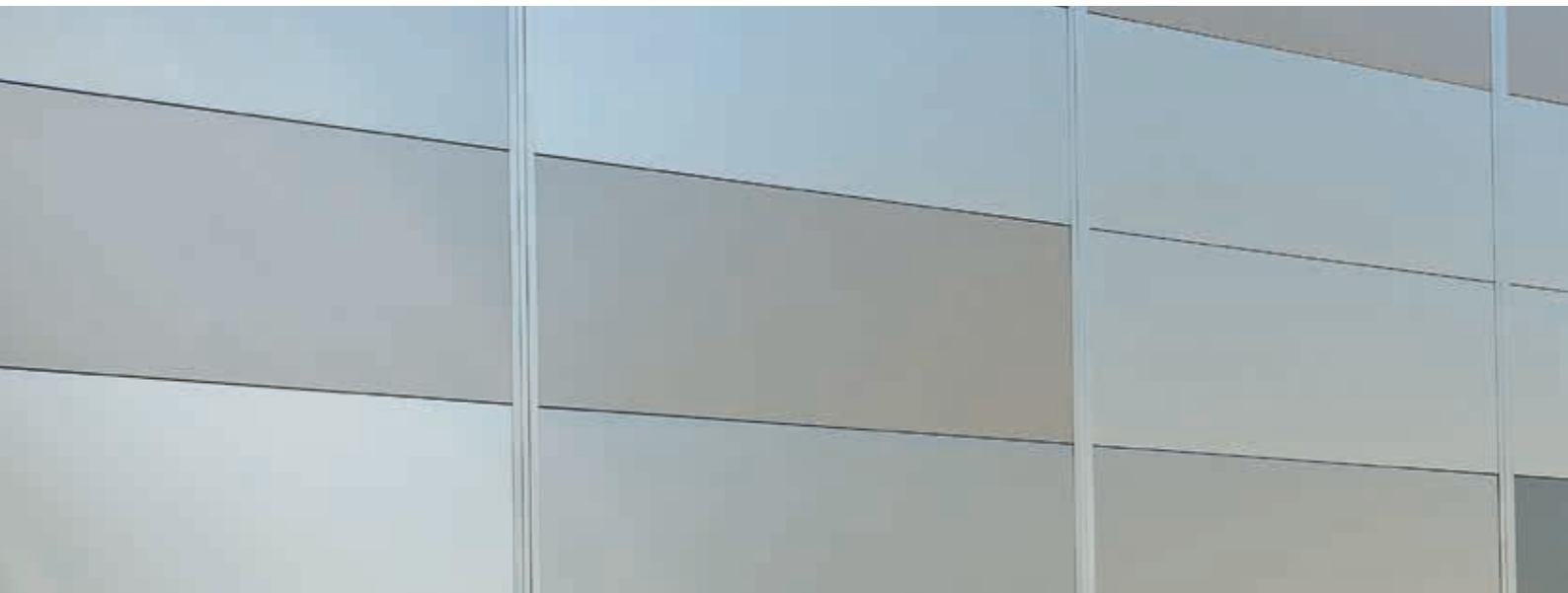
We can manufacture complementary flashing, gutters and accessories for all projects.

To complement the super smooth aesthetics of the Panelised Facade System range they are available in a large colour palette in three collections, Kingspan Altaris, highly polished and two tone colour coatings; Kingspan Textured, coarse rendered effect coatings; and Kingspan Spectrum, smooth solid and metallic coatings.

Contact us for sample swatches on: +91 124 4393 200

Customising Your Building Design Top Hats

The Panelised Facade System range has five joint options or top hats that can be used vertically or horizontally giving more design freedom.



Garonor Business Park France

Product: Panelised Facade System Axis
Architect: Atelier 4+





Applications

Kingspan Jindal Panelised Facade System Panels represent a dramatic breakthrough in pre-engineered insulated wall panels delivering a clean, smooth and aesthetically appealing modern solution. The system has a hidden joint detail which conceals fasteners from view and is available in various widths to suit any design.

Dimensions, Weight & Thermal Performance

Core Thickness (mm)	45	60	70	80	100	120	140	150
U-value (W/m ² K)	0.52	0.35	0.30	0.25	0.21	0.18	0.15	0.14
Weight kg/m ² 0.63/0.4 Steel	10.9	11.5	11.9	12.3	13.1	13.9	14.7	15.1

Kingspan Panelised Facade System wall panels have a Thermal Transmittance (U value), calculated using the method required by the Building Regulations Part L2 (England & Wales) and Building Standards Section 6 (Scotland).

Insulation Core

Kingspan Panelised Facade System insulated wall panels are manufactured with an ECOsafe and FIREsafe advanced formulation Isophenic IPN core.

Fire

The external and internal faces of the panel to be Class 0 in accordance with the UK Building Regulations when tested to BS 476: Part 6: 2009 and Part 7: 1997.

This FIREsafe system has passed all the requirements of The Insurance Standards – LPS 1181: 2005: Part 1: Issue 1.1, ceiling lining tests by the Loss Prevention Certification Board (LPCB) certified to LPS 1181 Grade EXT-B.

Environmental

The ECOsafe system achieves a Green Guide A+ rating* as per the BRE Global “The Green Guide to Specification”, Green Guide 2008 ratings. Green Guide element no. 806600001.

*Applies to 600, 900 and 1000 mm cover widths only. Other sizes may achieve a Green Guide A+ rating and is subject to project specific assessments.

Air leakage – an air leakage rate of 3 m³/hr/m² at 50 Pa or less can be achieved when using Kingspan insulated roof and wall panels.

Acoustic

Sound Reduction Index (SRI)

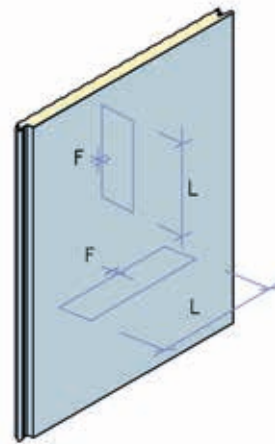
Hz*	63	125	250	500	1K	2K	4K	8K
SRI (dB)	20	15	17	23	18	25	40	46

* Frequency

Panelised Facade System insulated wall panel has a single figure weighted sound reduction $R_w = 24$ dB.

Flatness Tolerances

L (mm)	200	400	700	1000
F (mm)	0.6	1.0	1.5	1.8



Product Tolerances

Length (mm)	-5 +5
Width (mm)	-2 +2
Thickness (mm)	-2 +2
Squareness (mm)	-3 +3
Flatness (per metre) (mm)	-2 +2

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.



Kingspan Jindal Rainscreen Facade Panels

For buildings with complex designs, high aesthetics or requiring a ventilated facade, our system provides fast build, high technical performance solutions.

We can achieve this with our extensive range of cassette types and finishes, including a patented SuperFast install Dri-Design metallic rainscreen cassette. The Dri-Design cassettes are available in highly durable PPC or anodised aluminium, weathered steel, zinc or copper, across a range of shapes and sizes.



Millwoods Library Edmonton, Canada

Product: Dri-Design Tapered
Material: Aluminium
Architect: HCMA Architecture + Design, Vancouver and
Dub Architects Ltd, Edmonton

The widest choice of colours and cassette options of any metal, aluminium is available in an anodized, brushed, textured or in-house post-powder coated finish. Our BML 400 is available in a pre-coated A1 rated aluminium.

- Cost-effective
- Strong and durable
- Corrosion resistant
- 100% recyclable
- Flashings and fabrications are available in the same material for a complete solution

Dri-Design Flat



Dri-Design Shadow



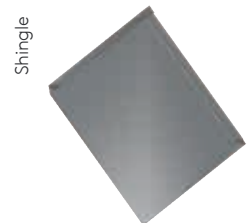
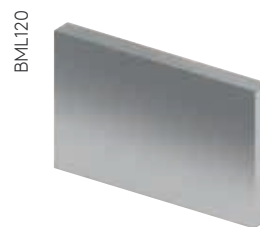
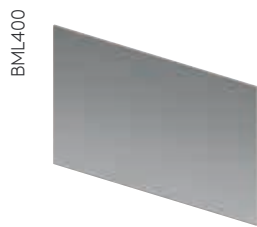
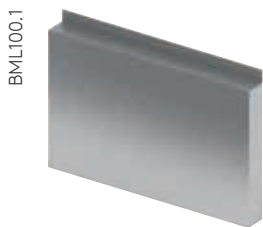
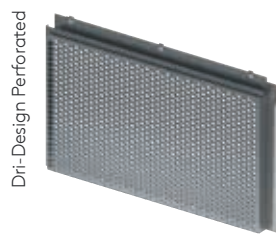
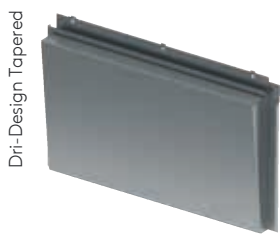
Hook-on Cassette



Recess-fixed Cassette



Kingspan Jindal Rainscreen Facade Panels



Full details of rainscreen facades from page 24.

SuperFast Install



Hwb Cyfle Day Centre Queensferry, UK

Product: Dri-Design Flat

Dri-Design Flat can be used in conjunction with IPN Karrier Panel, *Kingspan* **Kooltherm**® K15 Rainscreen Board, K-Roc™ Karrier Panel, K-Roc™ Rainscreen Slab and other substructures.

IPN Karrier Panel

Dri-Design Flat

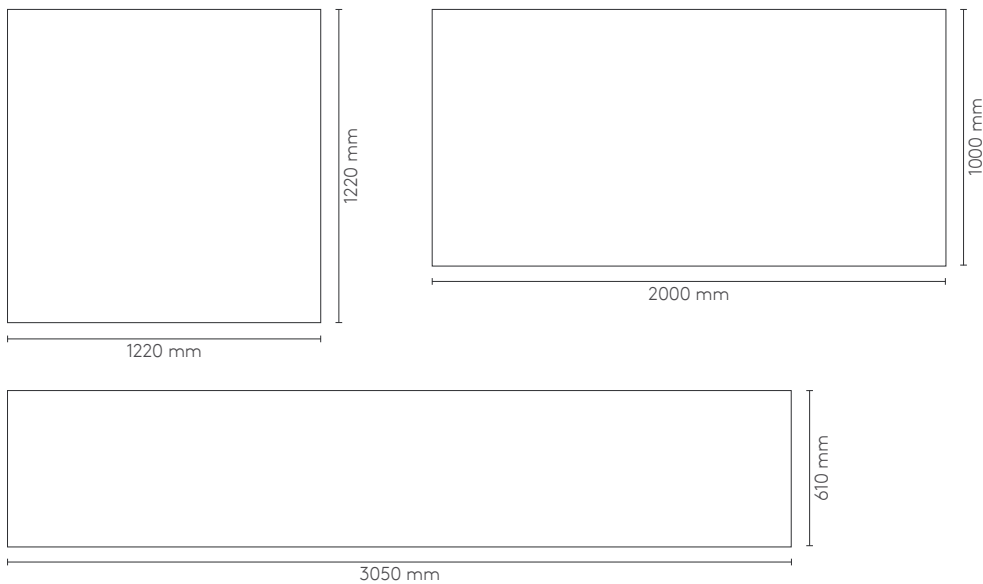




Kingspan Jindal Rainscreen Facade Panels
Dri-Design Flat

Dimensions

The below face sizes are maximum standard sizes for aluminium. Larger sizes can be manufactured, please contact Kingspan Facades Technical Services for further information on other sizes and materials or to discuss your specific requirements.



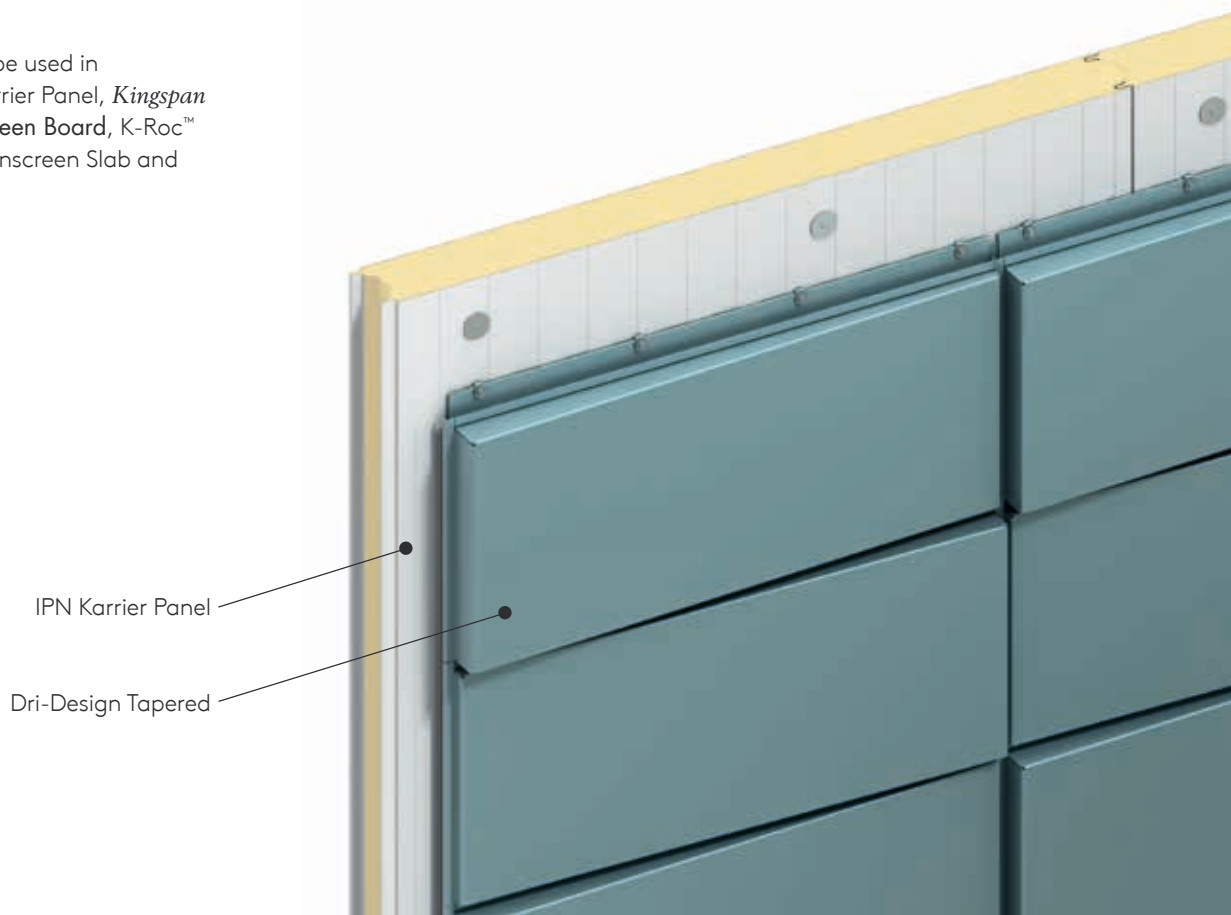


Niche 905 Apartments Chicago, USA

Product: Dri-Design Tapered

Architect: FitzGerald Associates Architects

Dri-Design Tapered can be used in conjunction with IPN Karrier Panel, *Kingspan Kooltherm*® K15 Rainscreen Board, K-Roc™ Karrier Panel, K-Roc™ Rainscreen Slab and other substructures.



Kingspan Jindal Rainscreen Facade Panels
Dri-Design Tapered

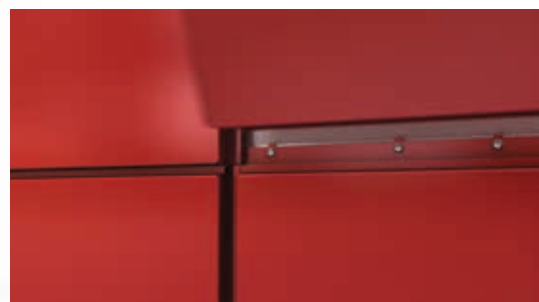
Speed of Install

Dri-Design is over twice as fast as comparable systems thanks to the minimal components, simple fixing system and ease of handling. When used within the IPN Karrier System, Dri-Design offers even greater time saving advantages over any other system.

This easy install allows enormous possibilities in terms of patterns – Stack Bond or Stretcher Bond, horizontal or vertical orientation – cassettes are easily interchangeable without the need for complicated rail and bracket systems.



First cassette hooks onto the J Rail and fixed to IPN Karrier Panel.



Subsequent cassettes hook into neighbour, next layer fixes into lower layer and neighbours.



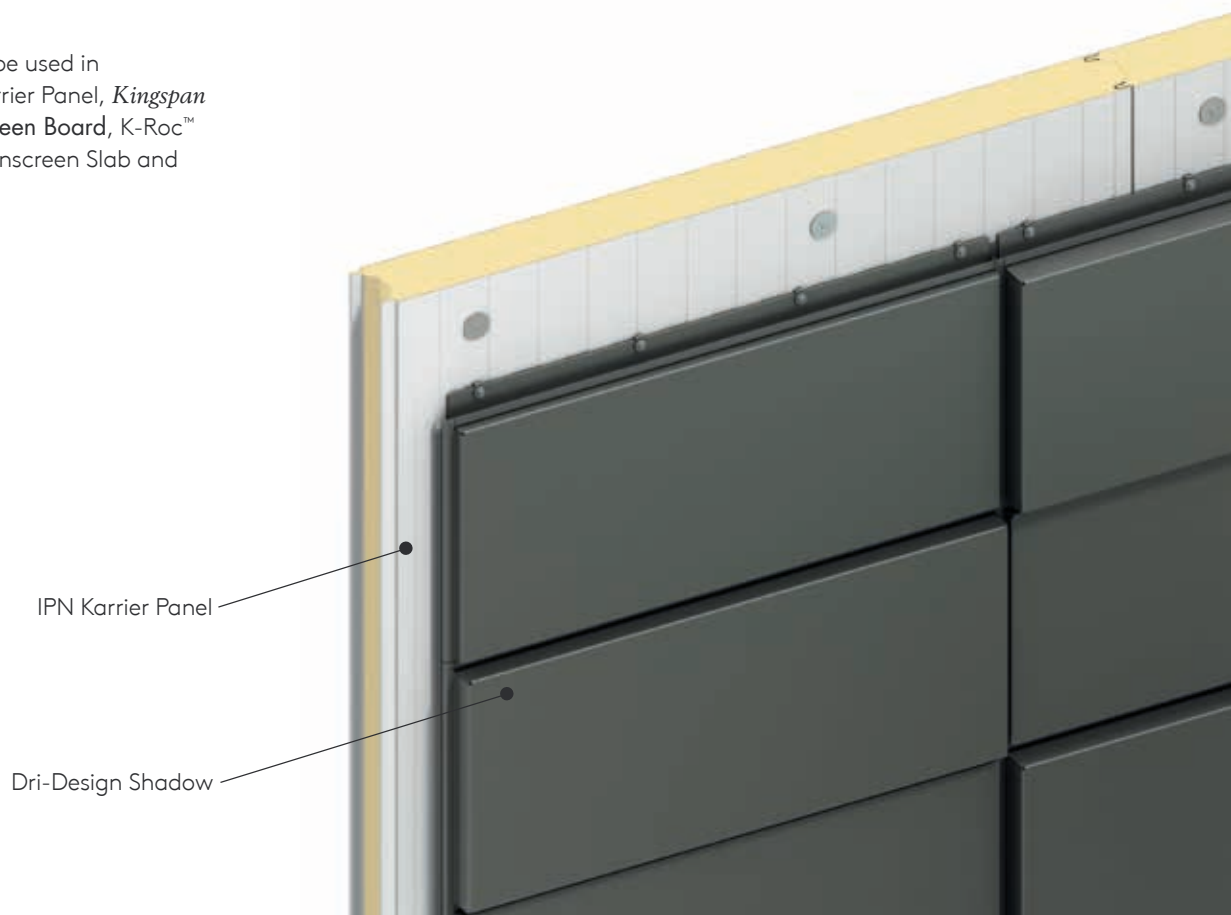
Brick Bond or Stackbond are easily attained.



General Mitchell International Airport Milwaukee, USA

Product: Dri-Design Shadow
Architect: Engberg Anderson Architects, Milwaukee

Dri-Design Shadow can be used in conjunction with IPN Karrier Panel, *Kingspan* **Kooltherm**® K15 Rainscreen Board, K-Roc™ Karrier Panel, K-Roc™ Rainscreen Slab and other substructures.



IPN Karrier Panel

Dri-Design Shadow

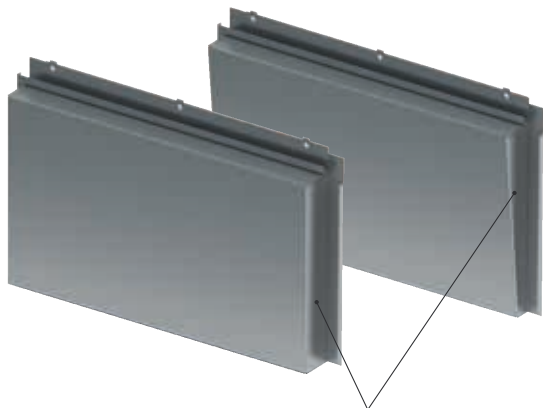
Kingspan Jindal Rainscreen Facade Panels
Dri-Design Shadow



Speed of Install

Dri-Design is over twice as fast as comparable systems thanks to the minimal components, simple fixing system and ease of handling. When used within the IPN Karrier System Dri-Design offers even greater time saving advantages over any other system.

This easy install allows enormous possibilities in terms of patterns – Stack Bond or Stretcher Bond, horizontal or vertical orientation – cassettes are easily interchangeable without the need for complicated rail and bracket systems.



Increasing depth allows a 'Shadow' or 'Tapered' variation of a standard Flat cassette, which when used with the Flat cassette gives depth and texture – fixing system remains the same.



Add depth to a design by including Dri-Design Shadow and /or Tapered cassettes without complicated rail systems.

SuperFast Install

St. Joseph Parking Garage Tacoma, USA

Product: Dri-Design Perforated
Architect: Perkins + Will

Dri-Design Perforated can be used in conjunction with IPN Karrier Panel, *Kingspan Kooltherm*® K15 Rainscreen Board, K-Roc™ Karrier Panel, K-Roc™ Rainscreen Slab and other substructures.

IPN Karrier Panel

Dri-Design Perforated

Kingspan Jindal Rainscreen Facade Panels
Dri-Design Perforated

Any digital image can be used for Dri-Design Perforated – what will you create?

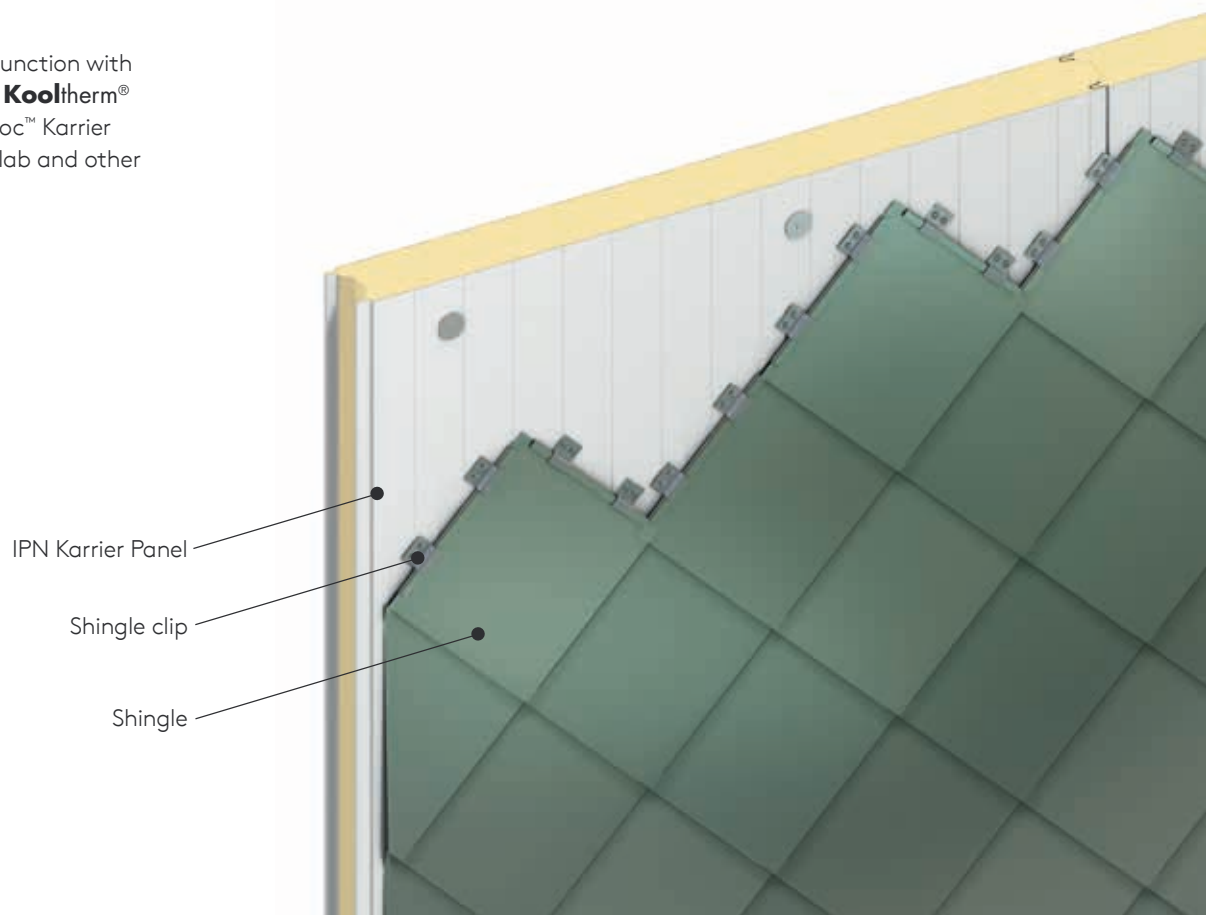




Mullum Mullum Australia

Product: Dri-Design Shingle

Shingle can be used in conjunction with IPN Karrier Panel, *Kingspan Kooltherm*[®] K15 Rainscreen Board, K-Roc[™] Karrier Panel, K-Roc[™] Rainscreen Slab and other substructures.

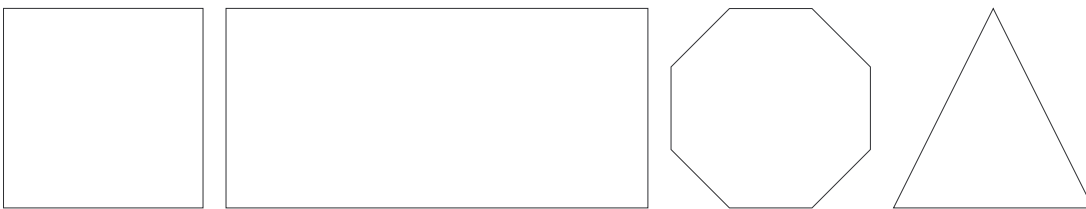


Kingspan Jindal Rainscreen Facade Panels
Shingle



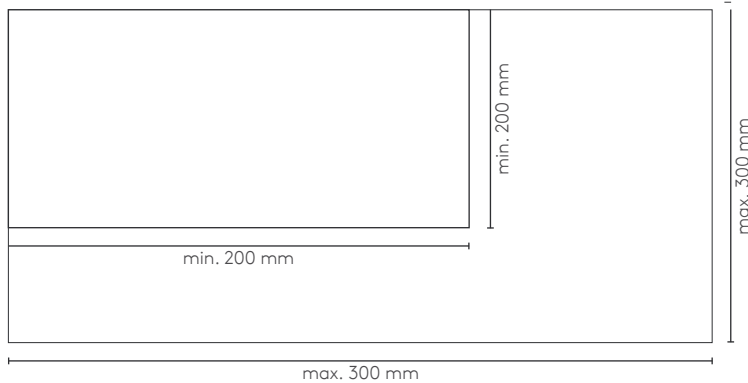
Shapes

Available in any polygon shape. No secondary support system lessens costs.



Dimensions

Minimum size for shingle, 200 mm x 200 mm. Maximum size for shingle, 300 mm x 300 mm.

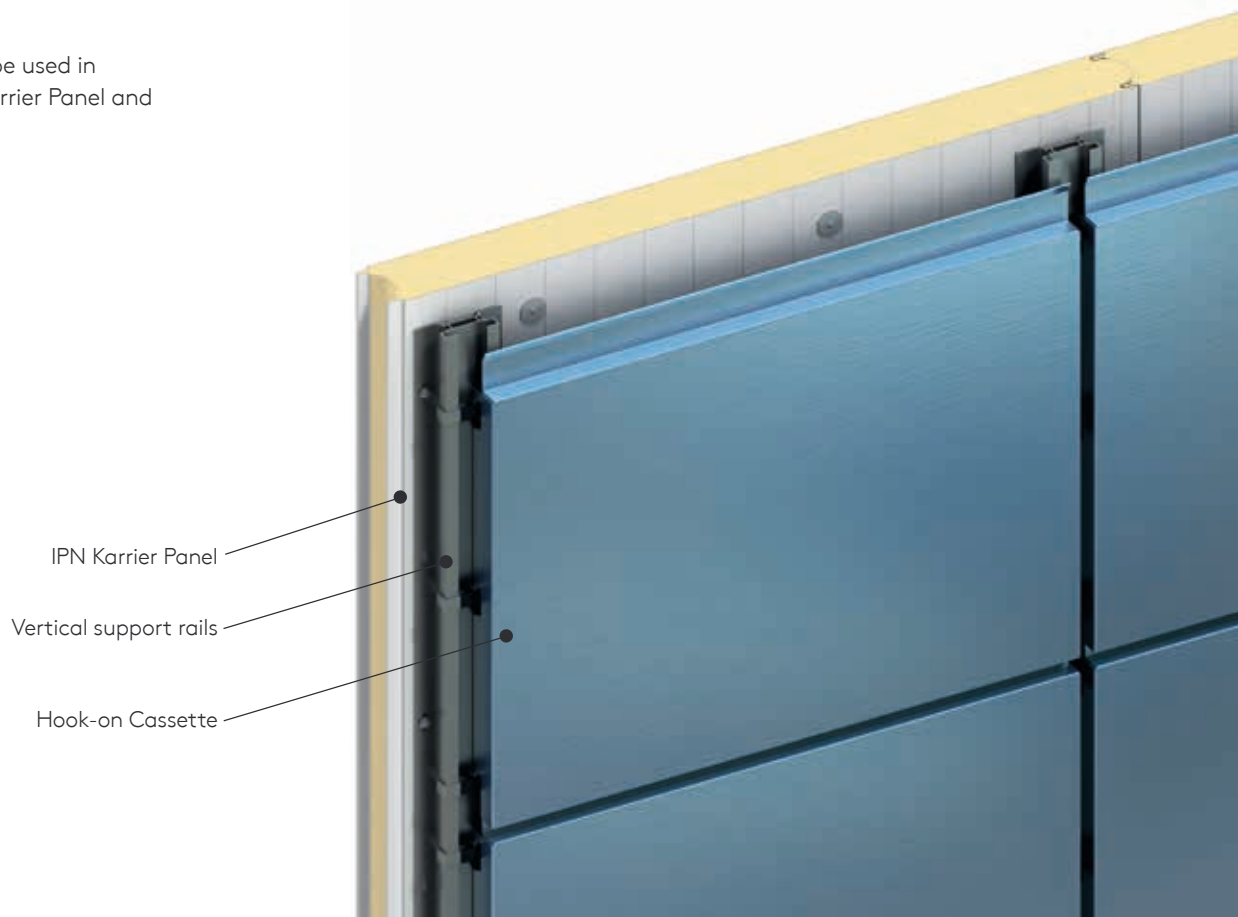




INEOS Office Grangemouth, UK

Product: Hook-on Cassette
Architect: Michael Laird Architects

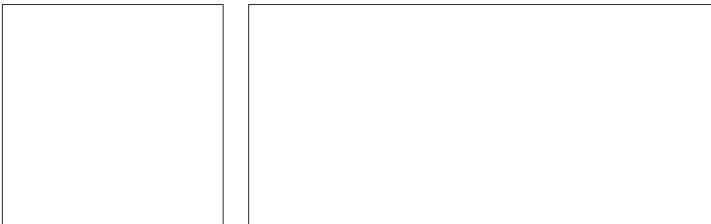
Hook-on Cassette can be used in conjunction with IPN Karrier Panel and K-Roc™ Karrier Panel.



Kingspan Jindal Rainscreen Facade Panels
Hook-on Cassette

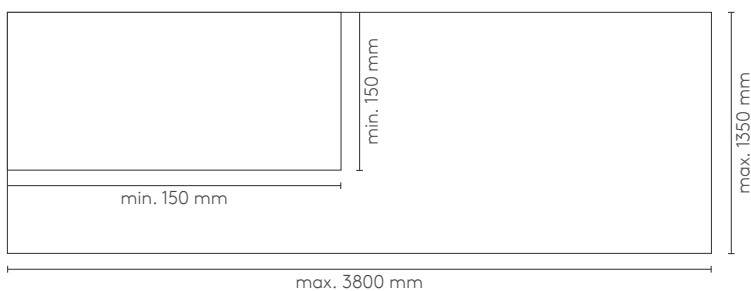



Shapes



Dimensions

Minimum size for cassettes, 150 mm x 150 mm. Maximum size for cassettes, 3800 mm x 1350 mm.





Knightstone House Weston-super-Mare, UK

Product: Interlocking Plank
Architect: Barton Willmore

Interlocking Plank can be used in conjunction with IPN Karrier Panel, *Kingspan Kooltherm*® K15 Rainscreen Board, K-Roc™ Karrier Panel, K-Roc™ Rainscreen Slab and other substructures.



IPN Karrier Panel

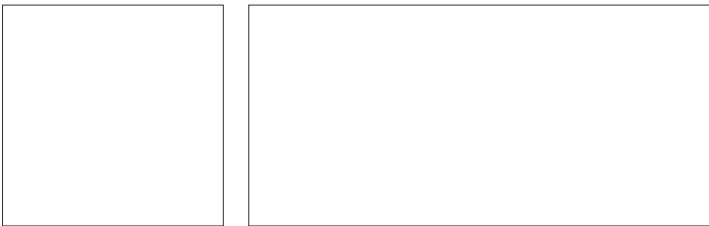
Vertical support rails

Interlocking Plank

Kingspan Jindal Rainscreen Facade Panels
Interlocking Plank

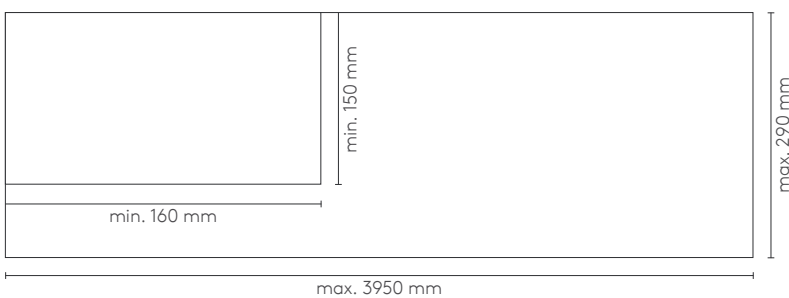


Shapes



Dimensions

Minimum size for plank, 160 mm x 150 mm. Maximum size for plank, 3950 mm x 290 mm. Sizes refer to aluminium only.

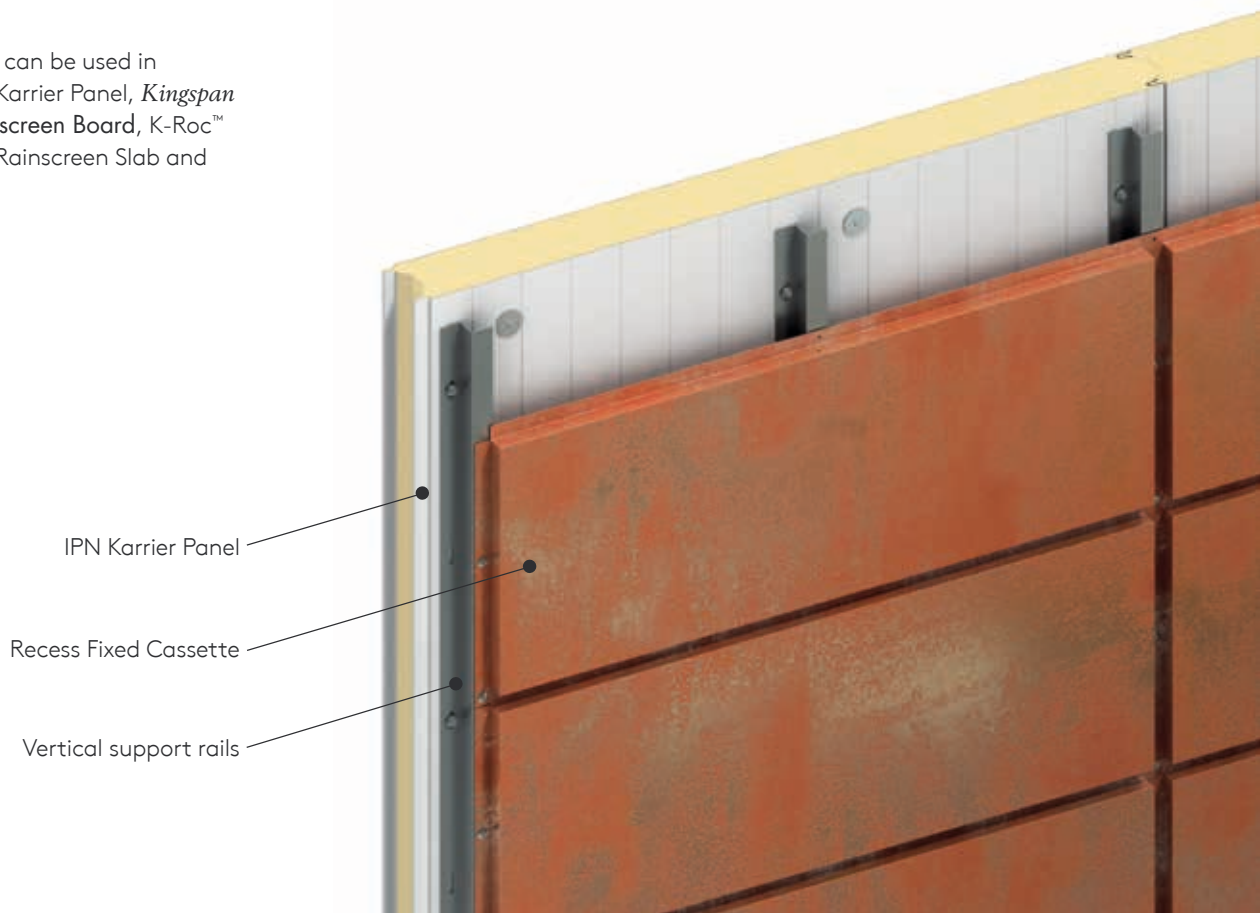




The Self Storage Company Hemel Hempstead, UK

Product: Recess Fixed Cassette
Finish: PPC

Recess Fixed Cassette can be used in conjunction with IPN Karrier Panel, *Kingspan Kooltherm*® K15 Rainscreen Board, K-Roc™ Karrier Panel, K-Roc™ Rainscreen Slab and other substructures.



IPN Karrier Panel

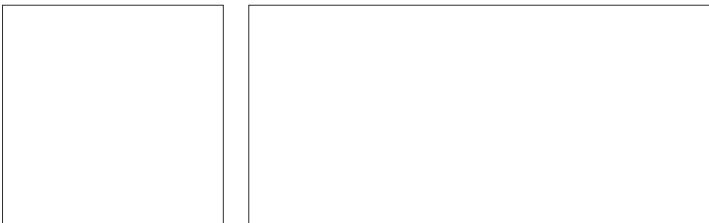
Recess Fixed Cassette

Vertical support rails

Kingspan Jindal Rainscreen Facade Panels
Recess Fixed Cassette

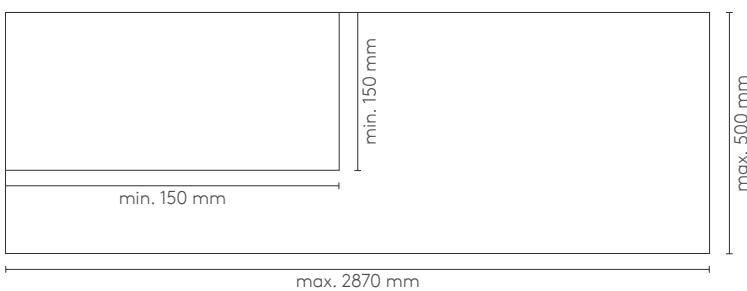


Shapes



Dimensions

Minimum size for cassettes, 150 mm x 150 mm. Maximum size for cassettes, 2870 mm x 500 mm.







Millwoods Library Edmonton, Canada

Product: Dri-Design Tapered

Architect: HCMA Architecture + Design, Vancouver
and Dub Architects Ltd, Edmonton

-
- Large range of colours and coatings
 - Non-combustible
 - Excellent durability and lifespan
 - Highly resistance to weather conditions
 - 100% recyclable
 - Resistant to corrosion



Painted Steel is a tough, resilient material which is used in the Panelised Facade System range.

The metal can be coated in a range of smooth, standard, textured, metallic and two tone colours. This ensures that Panelised Facade System is a viable option where the versatility, colour and smooth flatness of a metallic rainscreen facade is required along with the cost and speed of install benefits of an insulated wall panel.



Royal Holloway London, UK

Material: Copper

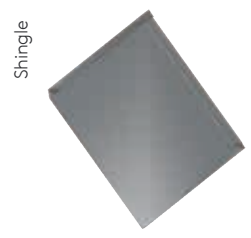
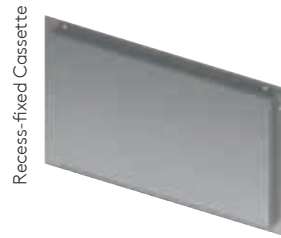
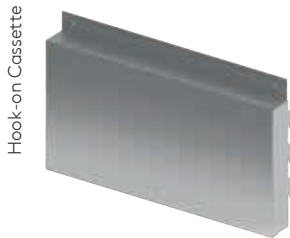
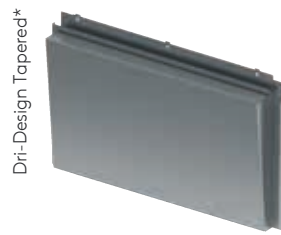
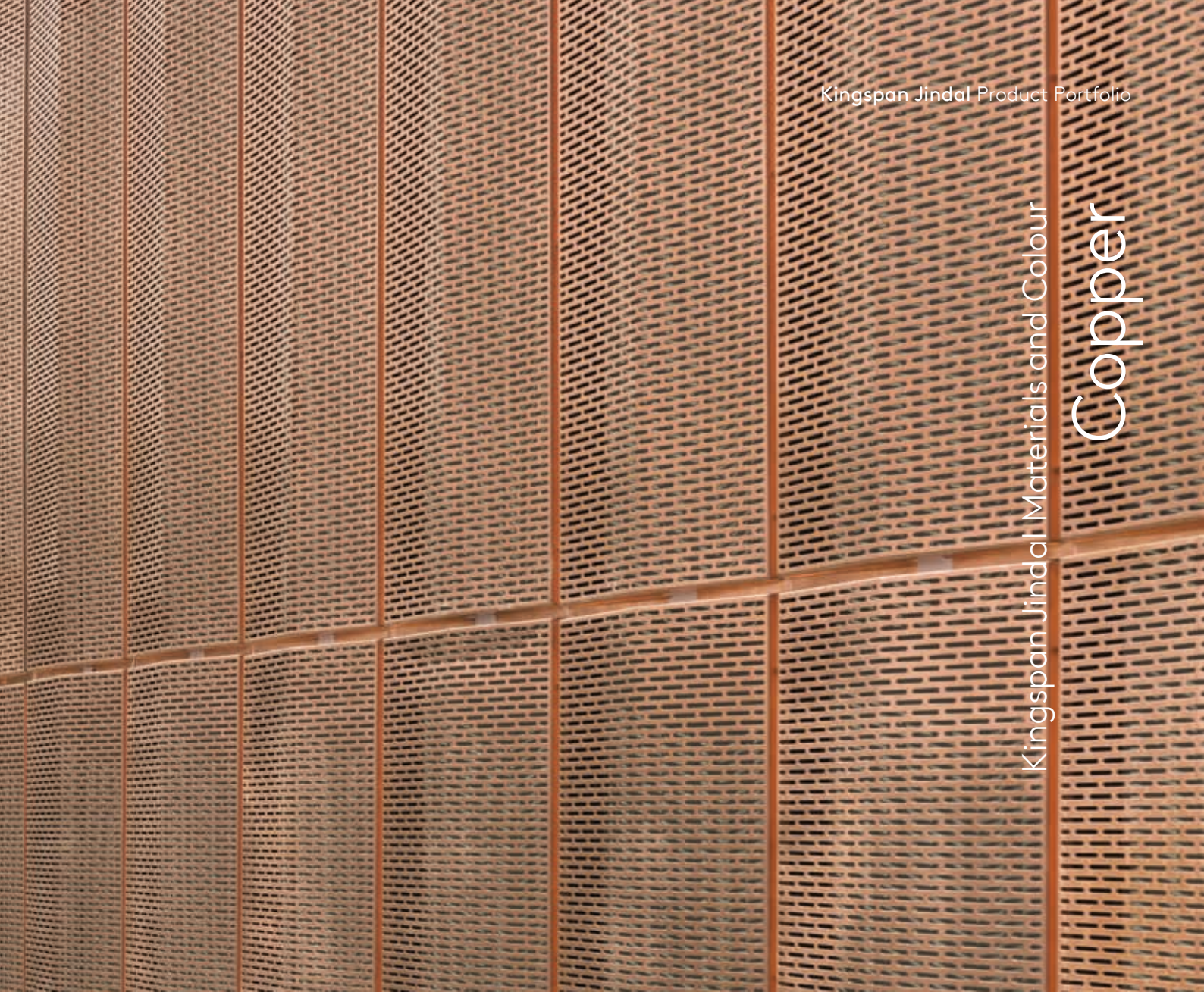
Product: Recess-fixed Cassette

Architect: Associated Architects

Often associated with prestigious historic buildings, copper has regained a reputation in modern architecture due to its resistance to corrosion, its longevity and its natural patina that can develop over time.

-
- Traditional material
 - Visually attractive and unmistakable
 - Non-combustible
 - 7 different coppers and copper alloys available
 - Durable
 - 100% recyclable
 - Self-weathering and non-weathering surface options available
 - Flashings and fabrications are available

Kingspan Jindal Materials and Colour
Copper



*Coming soon

Full details of rainscreen facades from page 24.



Queens University Belfast, UK

Material: Corten Steel

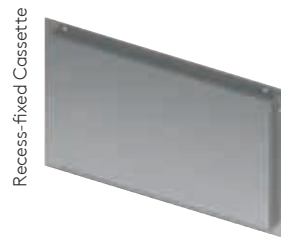
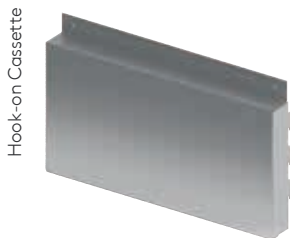
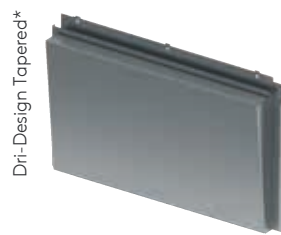
Product: Hook-on Cassette

Architect: Burwell Deakins London

Corten Steel Facade option is a weathering steel facade that naturally rusts over time, producing a striking oxide finish. The rust creates a protective coating that constantly forms allowing the facade to self heal, creating a highly durable and low maintenance option.

- Natural weathering properties
- Non-combustible
- Steel reforms after abrasions
- High structural strength
- High recycled content
- 100% recyclable
- Low solar reflectivity
- Flashings and fabrications are available in the same material for a complete solution

Materials and Colour Corten Steel



*Coming soon

Full details of rainscreen facades from page 24.



Silverburn Shopping Centre Glasgow, UK

Product: Karrier System and Shingle

Material: Stainless Steel

Architect: BDP

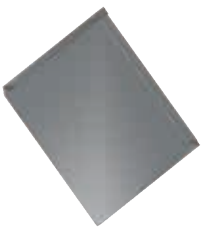
The high resistance to corrosion coupled with the aesthetic impact and the strong mechanical properties of stainless steel make it a superb option for building facades.

- Non-combustible
- Extensive colour and texture palette
- Long life and durability
- Excellent lifecycle benefits
- High corrosion resistance
- Typically contains 70% recycled material
- 100% recyclable
- Minimal maintenance
- Flashings and fabrications are available in the same material for a complete solution

Materials and Colour
Stainless Steel



Shingle





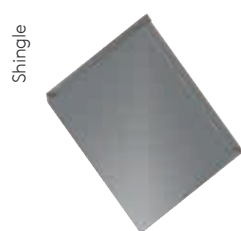
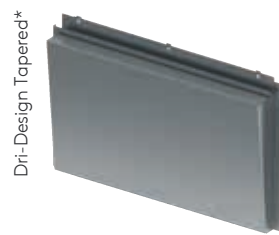
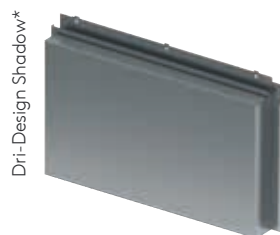
Adobe Systems Utah, USA

Material: VM Zinc
Finish: Dri-Design Flat
Architect: WRNS Studio

Once seen predominantly as a traditional roofing product, zinc makes a fantastic choice for facades due to its unique aesthetics, it is lightweight and durable, and can be used as an interesting contrast against other materials.

-
- Natural traditional material
 - Unique surface colour aspects
 - Non-combustible
 - Harmonious and modern appearance
 - Lightweight
 - Highly durable
 - 100% recyclable
 - Self-protecting, natural patina finish
 - Non-ferrous metal

Materials and Colour Zinc



*Coming soon

Full details of rainscreen facades from page 24.

Kingspan Jindal Colours and Coatings

Standard Colours



Kingspan Beige
0001



Kingspan Anodic
0010



Kingspan Orange
0001



Kingspan Red
0004



Kingspan Red
0001



Kingspan Brown
0009



Kingspan Rust
0002



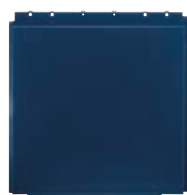
Kingspan Brown
0001



Kingspan Gold
0001
RAL 1027



Kingspan Mustard
0003



Kingspan Blue
0007



Kingspan Blue
0001



Kingspan Green
0005



Kingspan Green
0001



Kingspan Green
0008



Kingspan White
0005



Kingspan White
0004



Kingspan Grey
0010



Kingspan Grey
0029



Kingspan Grey
0035



Kingspan Grey
0006



Kingspan Grey
0005



Kingspan Grey
0030



Kingspan Grey
0011



Kingspan Grey
Brown 0001



Kingspan Black
0001

Specialist Coatings



Kingspan Bicolour 0001



Kingspan Bicolour 0002



Kingspan Specialist Coating 0001



Kingspan Specialist Coating 0002



Kingspan Specialist Coating 0003



Kingspan Specialist Coating 0004



Kingspan Specialist Coating 0005



Kingspan Specialist Coating 0006



Kingspan Specialist Coating 0007



Kingspan Specialist Coating 0008
RF-7559-XW Jubulani



Kingspan Specialist Coating 0009



Kingspan Specialist Coating 0010



Kingspan Specialist Coating 0011

Kingspan Coatings

Kingspan offers the following range of coating systems suitable for external applications:

- Kingspan Spectrum;
- Kingspan Altaris
- Kingspan Textured.

Extra reassurance when you need it:



✓ Corrosion



✓ UV



✓ Condensation



✓ Chemical

*Above coating is available only in Rainscreen Facades.



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