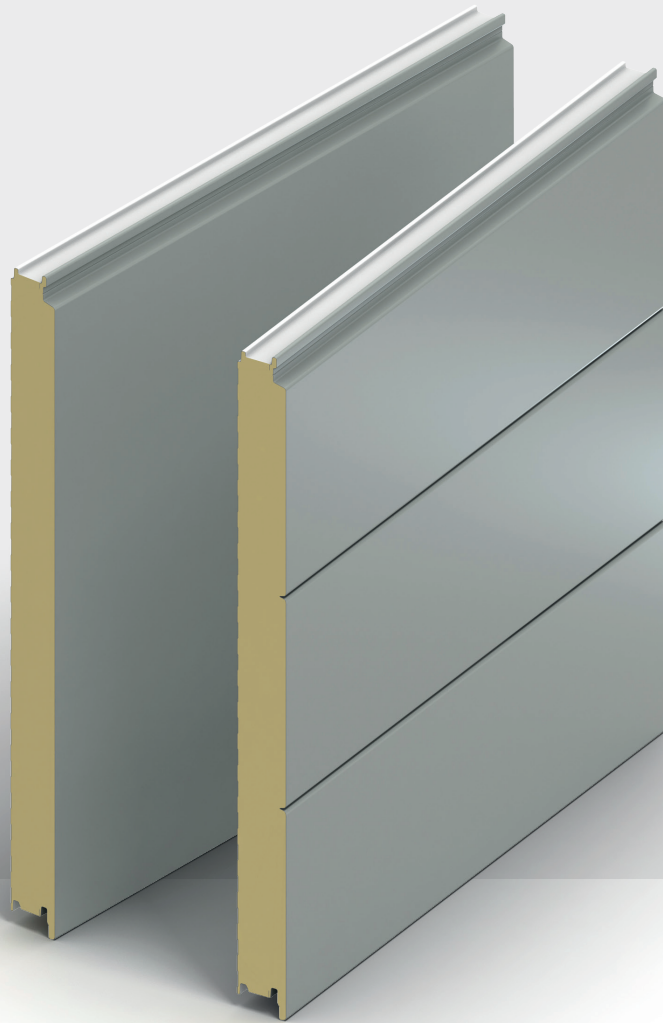


Insulated Panels  
Australia

# Evolution Panelised Facade Product Data Sheet

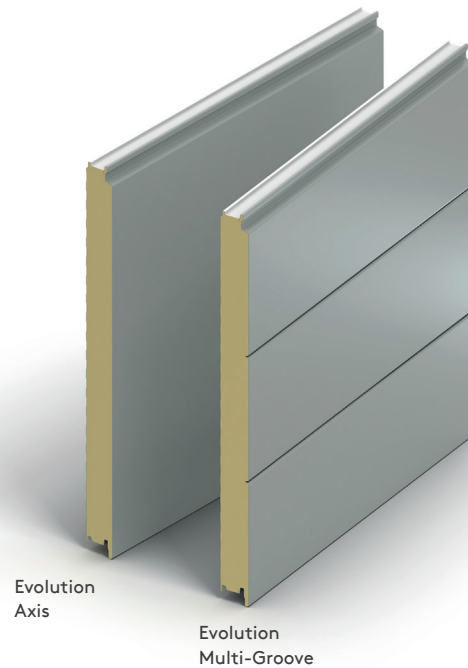


# Product Data

## Product Overview

The perfect solution for a minimalist façade effect, our profiled insulated panel comes in a wide range of colours.

Evolution Panelised Facade can be laid horizontally or vertically and is available in module widths of 900 mm and 1000 mm. The system features a hidden joint detail which conceals fasteners from view.



## Dimensions, Thermal Performance & Weight

Panel Nominal Thickness (mm)	Product R-Value (m <sup>2</sup> K/W) at 23°C	Product U-Value (W/m <sup>2</sup> K) at 23°C	Total R-Value (m <sup>2</sup> K/W)		Weight* (kg/m <sup>2</sup> )
			Heat Flow Out (Winter)	Heat Flow In (Summer)	
50	2.24	0.44	2.50	2.31	11.9
80	3.68	0.27	4.01	3.70	13.1
100	4.61	0.21	4.98	4.59	13.6
140	6.47	0.15	6.92	6.38	15.1

Declared Thermal Conductivity ( $\lambda$  Value) 0.022 W/mK @23°C.

Declared Product R-Value is calculated in accordance with AS/NZS 4859.1: 2018 as required for compliance to the National Construction Code.

The R-Values shown above are the total R-Values for the building element as required by the Energy Provisions of the National Construction Code, calculated in accordance with AS/NZS 4859.2: 2018. Evolution Panelised Facades are manufactured, tested and packaged in conformance with AS/NZS 4859.1: 2018.

\* Actual weight subject to vary  $\pm 10\%$  due to manufacturing and raw material tolerances.

### Available Lengths

Standard lengths	2.0m - 7.0m
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### Cover Widths

Evolution Panelised Facade panels are available in a choice of standard and non-standard cover widths.

Standard cover width	1000 mm
Non-standard cover widths	900 mm

### Fixing Method

Secret-fix.  
\* Flatness shall be measured at least 100 mm from the edge of panel and 200 mm from the end of panel.

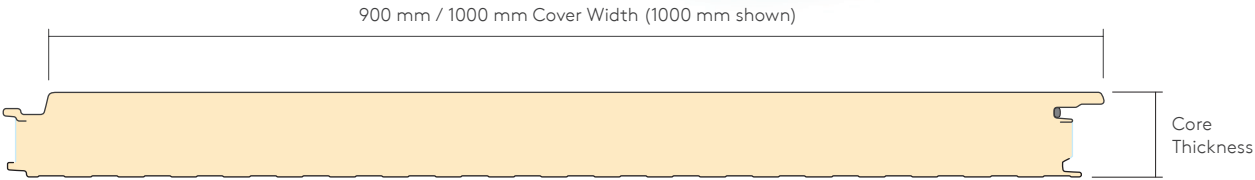
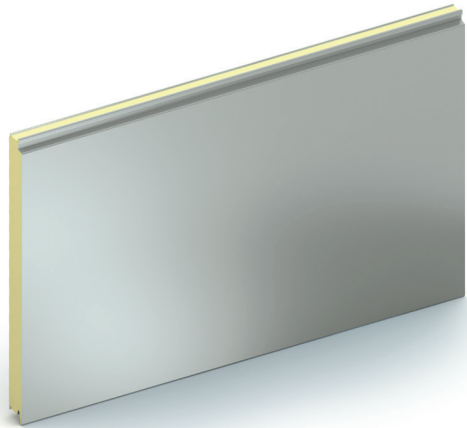
### Product Tolerances

Length < 3 m	± 5 mm
Length > 3m	± 10 mm
Cover Width	± 2 mm
Thickness ≤ 100 mm	± 2 mm
Thickness > 100 mm	± 2%
Squareness	≤ 0.6% of width
<b>Flatness*</b>	
L = 200 mm	0.6 mm
L = 400 mm	1.0 mm
L > 700 mm	1.5 mm
Bowing	2 mm per metre length upto maximum 20 mm

### Profiles

#### Evolution Axis

Evolution Axis is an unprofiled insulated panel system; the perfect solution if you are looking to achieve a minimalist façade on buildings with large, flat surface areas.



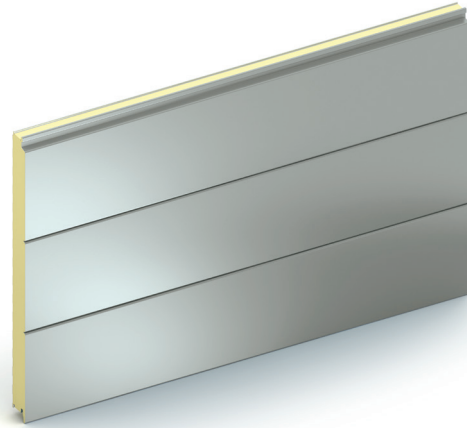
**Note:** Dimensions are nominal. Actual dimensions will vary due to manufacturing tolerances. Precise dimensions must always be measured from actual samples. All measurements in mm.

# Product Data

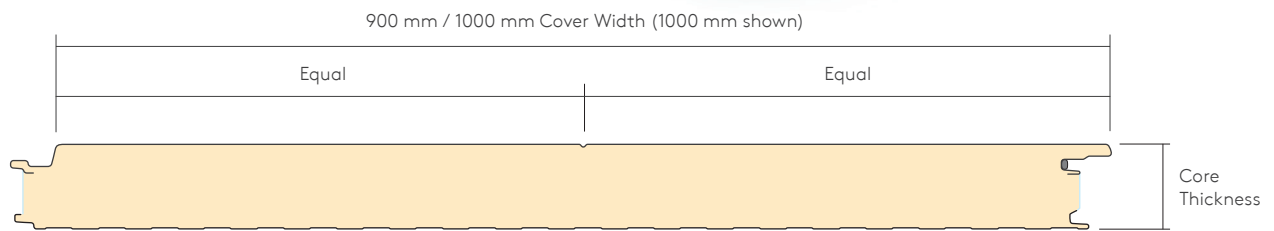
## Profiles

### Evolution Multi-Groove

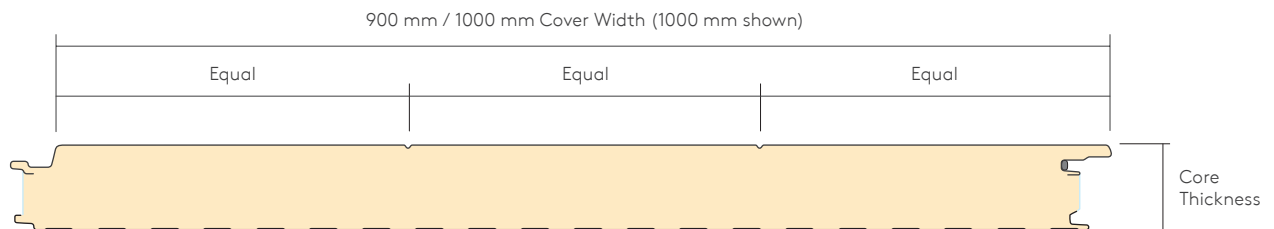
Evolution Multi-Groove has one, two or three grooves engineered into its surface, creating subtle shadow lines on the building's façade and an illusion of smaller panel widths without the installation time constraints.



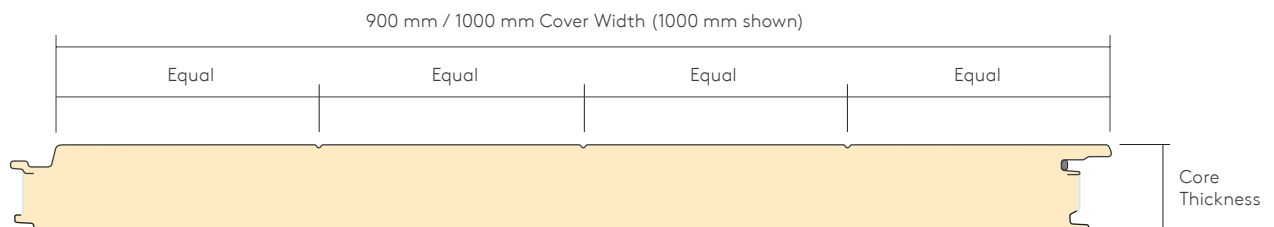
### One groove



### Two groove



### Three groove



**Note:** Dimensions are nominal. Actual dimensions will vary due to manufacturing tolerances. Precise dimensions must always be measured from actual samples. All measurements in mm.

## Insulation Core

Evolution Panelised Facades are manufactured with a polyisocyanurate (PIR) core.

## Structural Performance

Please contact Technical Services for project specific support on the spanning performance of the Evolution Panelised Facade.

## Certification and Testing

### Fire Performance

#### Reaction to Fire

Test	Test Method	Result
Ignitability	AS/NZS: 1530.3: 1999	Ignitability Index: 0
Flame Spread		Spread of Flame Index: 0
Heat Release		Heat Evolved Index: 0
Smoke Release		Smoke Developed Index: 3
NCC Group Number in accordance with AS 5637.1: 2015	AS 5637.1: 2015 / ISO 9705 2003	Group 2
Smoke Growth Rate Index (SMOGR <sub>ARC</sub> ) (m <sup>2</sup> /S <sup>2</sup> x 1000)		< 100

### Insurer Approvals

Evolution Panelised Facades are tested to:

- FM 4880 Class 1 fire rating of building panels or interior finish materials, unlimited height for thicknesses 50 mm to 140 mm and for panel widths of 1000 mm and 900 mm.
- FM 4881 Class 1 exterior wall systems, unlimited height for thicknesses 50 mm to 140 mm and for panel widths of 1000 mm and 900 mm.

FM approvals are subject to the following certified names:

- For 1000 mm widths: KS1000 Evolution.
- For 900 mm widths: KS900 Evolution.

Insurer approvals are large scale testing regimes that provide objective third-party testing, which is underpinned by quarterly, half-yearly and yearly factory surveillance audits (depending on the region) to verify compliance. Insurer approvals are subject to panel thickness, width, orientation, method of assembly, steel coating and manufacturing facility. Please contact Technical Services for project specific details.



## Acoustic Performance

For a sound transmission reduction, Evolution Panelised Facades have a weighted sound reduction index (SRI) of R<sub>w</sub> = 24 - 26dB\*. Results are based on panels with a similar profile and core material.

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000	R <sub>w</sub>
SRI (dB)	20	18	20	24	20	29	39	46	24

\* Please contact Technical Services for project specific support and product specification where R<sub>w</sub> = 26dB is required.

## Materials

### External Weather Sheet

- G300S steel with AM100 or AM150 metallic coating in accordance with AS 1397: 2021.
- Paint Coating in accordance with AS / NZS 2728: 2013.

### Internal Liner

- G300S steel with AM100 metallic coating in accordance with AS 1397: 2021.
- Paint Coating in accordance with AS / NZS 2728: 2013.

## Coatings

### External Weather Sheet

- Colours as per the Kingspan Australia color range, please contact your local area sales manager for further information.

### Internal Liner

- Kingspan CLEANsafe 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.

### Other Internal Coating Options\*

- Kingspan AQUAsafe: The coating has been developed for use as the internal lining of insulated panels to suit high humidity internal environments
- Kingspan AQUAsafe 25 and Kingspan AQUAsafe 55: The coating has been developed for use as the internal lining of insulated panels to swimming pool internal environments

\* Please contact Technical Services for further information regarding substrates and coatings. Internal coatings subject to availability and panel cover width.

# Product Data

## Seals

All panel joints have a factory applied weather seal fitted into the panel groove to automatically seal the joint between panels.

## Quality and Durability

Evolution Panelised Facades are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards, complying with ISO 9001 standard, ensuring long-term reliability and service life. The panels are also being manufactured under Environmental Management System Certification ISO 14001 and Occupational Health and Safety Certification ISO 45001.

## Packaging

Evolution Panelised Facades are stacked horizontally. The entire pack is shrink wrapped. The number of panels in each pack depends on panel length, weight, and thickness. Typical pack height is 1200 mm. Other types of packaging are available upon request, please contact Kingspan Customer Service team for further information.

## Delivery

All deliveries (unless indicated otherwise) are by flatbed road transport to project site. Off loading is the responsibility of the client. Export orders are transported in shipping containers. WA orders are transported in shipping containers, unless road freight is opted for.

## Site Installation Procedure

Site assembly instructions are available from Technical Services. Kingspan recommend that the appointed contractor attend the product installation training course prior to installation, which is provided by Kingspan Field Services.

## Environmental

Kingspan Insulated Panels manufacturing facility in Australia sources 100% certified renewable electricity and procures steel that is made from 15-25% recycled content.

Evolution Panelised Facades have Environmental Product Declarations in accordance with the requirements of ISO 14025 and EN 15804: 2012 + A2: 2019 for 50 mm to 140 mm thickness.

Evolution Panelised Facade is certified with a Global GreenTag GreenRate™ Level A certification to Version 4.0 of the Global GreenTag International Product Certification Standard, under the certified name Kingspan Wall Panels.

A GreenRate Level A license is the highest-ranking level in GreenTag's GreenRate program. As a result, Evolution Panelised Facade receives the maximum recognition by the Green Building Council of Australia's Green Star® building rating tools scheme. The recognition provides assurance to green building projects that the product has demonstrated a maximum commitment to low toxicity, compliance to relevant social and environmental laws in the country of operation, fit for purpose certification, availability of replacement parts, a design for recycling and/or reuse and healthy VOC levels.

## Biological

Kingspan PIR foam core used in the manufacture of Evolution Panelised Facades are free from urea formaldehyde.

## Accreditations



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# Contact Details

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## Australia

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For the product offering in other markets please contact your local sales representative or visit [www.kingspanpanels.com](http://www.kingspanpanels.com)

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