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INTRODUCING BENCHMARK

A turning point in building design

BENCHMARK is an architectural range of façade and roof systems that have been designed using insulated panel technology.

BENCHMARK brings together all the building envelope's elements to help create stunning architectural façades and roofs in exciting colours, textures and finishes, whilst meeting clients' expectations in terms of costs, speed and energy performance.





DESIGN WALL SERIES

The Design Wall Series comprise a range of premium laser flat insulated panels with distinctive features, textures and colours. They can be laid vertically or horizontally and can integrate easily with each other and the rest of the BENCHMARK range for complete design flexibility.

The Design Wall Series provide excellent weather resistance, thermal, fire and structural performance. These lightweight solutions can be rapidly installed on buildings of any height, integrating easily with doors, windows, glazing, louvres and traditional construction materials.

These panels can be installed onto lightweight Steel Framing Systems, timber, concrete or steel framework or Multibeam purlin and rail systems.

They are all manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, approved to BS EN ISO 9001:2008 (Quality management systems Requirements).

Project: Aten Offices, Netherlands
Product: BENCHMARK Evolution Recess

Tel: +61 (02) 8889 3000

BENCHMARK EVOLUTION

DESIGN WALL SERIES



INTRODUCTION

BENCHMARK Evolution is finished with the sleek simplicity of a completely flat façade, with Kingspan's customary industry-leading, high-performance insulation core. The clean, flawless finish conceals the complexity of the engineering behind these revolutionary panels. BENCHMARK Evolution can add the ultimate finishing touch to the modern building envelope, combining leading-edge design with stellar thermal performance. This range can be cranked or chamfered at corners adding to a suite of sophisticated detailing, offering architects and builders a comprehensive range of textured finishes with a stylist colour palette. The system is available in cover widths of 600, 900 and 1000mm and comes with a range of architecturally enhancing ancillaries. All the architectural options of the BENCHMARK Evolution range of products can be readily integrated with traditional materials - glazing, doors, windows and other ancillary components.

APPLICATION

BENCHMARK Evolution wall panel systems are suitable for most building applications as an external façade element in either horizontal or vertical applications. A choice of exterior and interior finishes caters for a range of colours and coatings in standard and high humidity environments.

BENEFITS

- Available in cover widths 600, 900, 1000mm.
- Available lengths from 2m up to 12m.
- Simple and fast construction.
- Pre-formed corners can be created.
- Suitable for vertical or horizontal applications.
- Suitable for buildings of any height.
- Accelerated build speed through pre-engineered, single component, single-fix installation.
- Environmentally sustainable panel system which can achieve a green rating.
- Easily accommodates openings, penetrations and complex façades.
- Simple integration with doors, windows, glazing, louvres and traditional construction materials.
- Lifetime insulation continuity, thermal performance and airtightness (less than $5\text{m}^3/\text{hr}/\text{m}^2$) certainty.
- Single point responsibility - one contractor installing the panel and façade.

BENCHMARK EVOLUTION

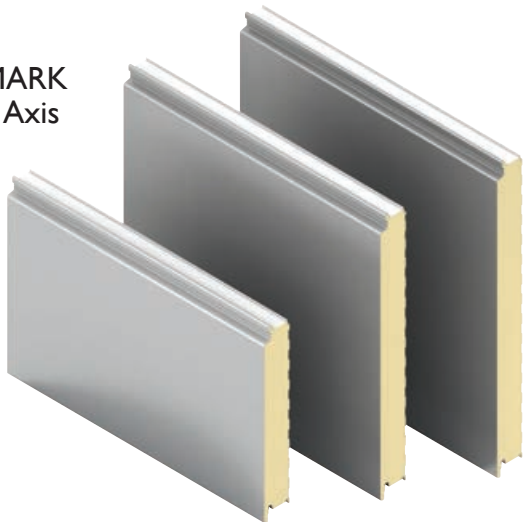
DESIGN WALL SERIES



BENCHMARK EVOLUTION AXIS

BENCHMARK Evolution Axis (previously known as Evolution), is the original premium flat panel in the Design Wall Series collection.

BENCHMARK Evolution Axis



PERFORMANCE

Panel Properties and Thermal Performance

Core Thickness (mm)	50	80	100	140
R-value (m ² K/W)	2.65	4.15	5.15	7.15
U-value (W/m ² K)	0.38	0.24	0.19	0.14
Weight Kg/m ² 0.7/0.4 Steel	12.7	13.9	14.7	16.3

Fire

When tested to AS/NZS 1530.3, panels achieved the fire hazard results;

Ignitability Index	0
Spread of flame index (SFI)	0
Heat evolved index	0
Smoke development index (SDI)	2

BENCHMARK Evolution range (KS600/900/1000 Evo) meets the requirements of BCA Specification C1.10a as a Group 2 product, when tested to AS ISO 9705.

BENCHMARK EVOLUTION

DESIGN WALL SERIES



Acoustics

For sound transmission reduction, BENCHMARK Evolution panels typically have a single figure weighted sound reduction index (SRI) of $R_w = 24$ dB. For specific acoustic solutions contact Technical Services.

Frequency (Hz)	SRI (dB)
63	13
125	17
250	21
500	26
1000	26
2000	26
4000	42
8000	52
R_w	24

FM Panel System approval

BENCHMARK Evolution wall panel systems (KS600/900/100 Evo) are available with FM Global FMRC 4880 Approved Unlimited Height and FM Global 4881 Approved Class I Exterior Wall System Certifications.

Available lengths

Standard lengths are from 2m to 12m.

Factory applied side joint seal

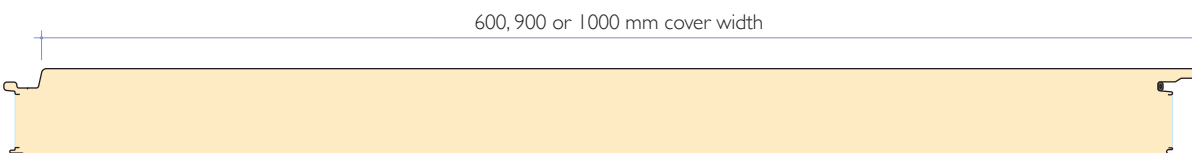
All side joints have a factory applied seal fitted into the groove to automatically seal the joint between the panels.

Biological

BENCHMARK Evolution panels are normally immune to attack from mould, fungi, mildew and vermin. No area formaldehyde is used in the construction, and the panels are not considered deleterious.

Colours

BENCHMARK Evolution panels are available in a range of selected colours from the Kingspan Collection - please contact Technical Service for further advice.



BENCHMARK EVOLUTION

DESIGN WALL SERIES

Spans

Span capability of composite systems can depend on a number of external factors. The following table is based on typical colour selections. For darker colours contact Technical Services.

Single Span Condition

Panel Thickness mm	Load Type	Span L in metres										
		2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
Uniformly distributed loads kN/m ²												
Ultimate Limit State												
50mm	Pressure	4.45	3.56	2.97	2.42							
	Suction	3.74	2.39	1.66	1.22							
80mm	Pressure	7.04	5.63	4.69	3.68	2.82	2.23	1.80				
	Suction	6.03	3.86	2.68	1.97	1.51	1.19	0.96				
100mm	Pressure	8.70	6.96	5.80	4.46	3.42	2.70	2.19	1.81	1.52	1.29	
	Suction	7.59	4.86	3.37	2.48	1.90	1.50	1.21	1.00	0.84	0.72	
140mm	Pressure	8.84	7.07	5.89	5.05	4.41	3.49	2.83	2.34	1.96	1.67	1.44
	Suction	8.84	6.85	4.76	3.49	2.68	2.11	1.71	1.42	1.19	1.01	0.87
Serviceability Limit State												
50mm	Pressure	3.80	2.32	1.49	0.99							
	Suction	3.26	1.90	1.15	0.65							
80mm	Pressure	7.10	4.69	3.22	2.27	1.64	1.22	0.92				
	Suction	6.50	4.19	2.79	1.92	1.35	0.96	0.70				
100mm	Pressure	8.97	6.15	4.36	3.17	2.35	1.78	1.37	1.07	0.85	0.68	
	Suction	8.37	5.63	3.91	2.78	2.02	1.49	1.12	0.85	0.66	0.50	
140mm	Pressure	11.40	8.24	6.14	4.68	3.62	2.85	2.27	1.82	1.48	1.22	1.01
	Suction	10.87	7.75	5.70	4.28	3.27	2.53	1.98	1.57	1.26	1.01	0.82

Double Span Condition

Panel Thickness mm	Load Type	Span L in metres										
		2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
Uniformly distributed loads kN/m ²												
Ultimate Limit State												
50mm	Pressure	4.45	3.56	2.97	2.42	1.86						
	Suction	3.74	2.39	1.66	1.22	0.94						
80mm	Pressure	7.04	5.63	4.69	3.68	2.82	2.23	1.80	1.49			
	Suction	6.03	3.86	2.68	1.97	1.51	1.19	0.96	0.80			
100mm	Pressure	8.70	6.96	5.80	4.46	3.42	2.70	2.19	1.81	1.52		
	Suction	7.59	4.86	3.37	2.48	1.90	1.50	1.21	1.00	0.84		
140mm	Pressure	8.84	7.07	5.89	5.05	4.41	3.49	2.83	2.34	1.96	1.67	1.44
	Suction	8.84	6.85	4.76	3.49	2.68	2.11	1.71	1.42	1.19	1.01	0.87
Serviceability Limit State												
50mm	Pressure	3.41	1.91	1.22	0.85	0.63						
	Suction	3.85	2.80	1.67	1.10	0.78						
80mm	Pressure	5.77	3.58	2.19	1.48	1.07	0.81	0.64	0.51			
	Suction	5.47	4.31	3.30	2.16	1.48	1.07	0.81	0.63			
100mm	Pressure	6.31	4.94	3.02	2.00	1.42	1.06	0.83	0.66	0.54		
	Suction	5.98	4.69	3.87	3.00	2.07	1.47	1.09	0.84	0.67		
140mm	Pressure	6.15	4.80	3.92	3.32	2.30	1.67	1.27	1.00	0.81	0.67	0.56
	Suction	5.80	4.52	3.70	3.13	2.72	2.41	1.93	1.45	1.12	0.90	0.73

Notes: 1. Values have been calculated using the methods described in EN 14509:2006 titled 'Self-supporting double skin metal faced insulating panels (medium coloured) - Factory made products - Specifications', taking imposed loads and temperature into account.

2. The serviceability limit state is defined by local buckling, bending or crushing failure at an intermediate support or the exceedance of a specified deflection limit.

3. A deflection limit of L/100 was used.

4. The allowable steelwork tolerance between bearing planes of adjacent supports is +/- 5mm.

5. The actual wind suction load resisted by the panel is dependant on the number of fasteners used and the support width as well as the fastener material.

This table is based on a support width of 60mm.

6. The fastener calculation should be carried out in accordance with the appropriate standards. For further advice please contact Technical Services.

7. Load span tables for the panel specifications not shown are available from Technical Services.

Care has been taken to ensure that the contents of this publication are accurate, but Benchmark Insulated Panels Pty Ltd and its subsidiary companies do not accept responsibility for errors or for information that is found to be misleading. Suggestions for, or descriptions of, the end use or application of products or methods of working are for information only and Benchmark Insulated Panels Pty Ltd and its subsidiaries accept no liability in respect thereof.

BENCHMARK EVOLUTION

DESIGN WALL SERIES



ARCHITECTURAL FEATURES

With bespoke element widths, variable reveal widths, grooves accentuating shadow lines and recessed tray effects creating the look of rainscreen technologies, the architectural features available within the BENCHMARK Evolution range allow you to create premium and innovative façades using simple, fast and cost effective technologies with seemingly limitless boundaries.

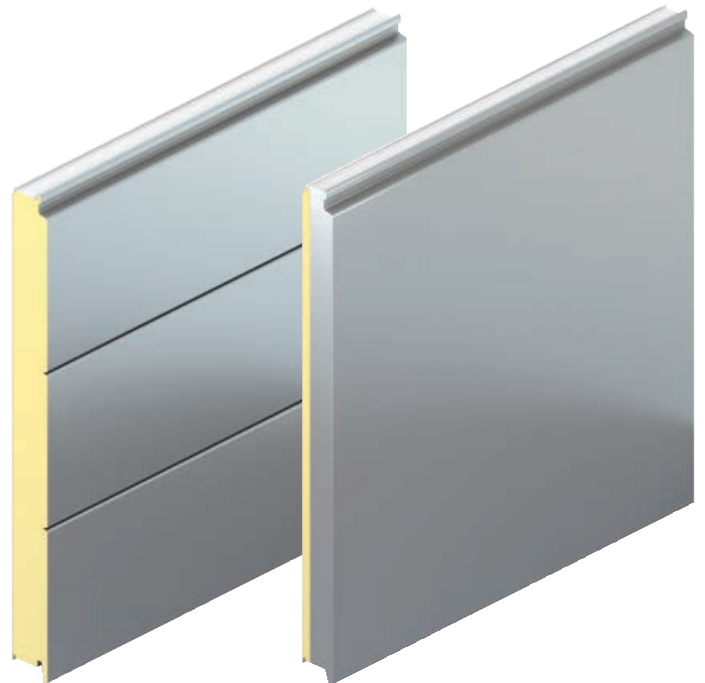
** The following BENCHMARK Evolution panel options are available through importation and are subject to additional lead times and minimum quantities. Please contact Technical Services for further information.*

BENCHMARK Evolution Multi-Groove

is a premium flat panel that can have up to three grooves engineered into the surface of the panel, creating the illusion of varying panel widths.

BENCHMARK Evolution Recess

has a folded edge detail with a recessed rubber gasket, creating a 3D joint effect. This effect creates the illusion of rainscreen façade introducing another dimension.

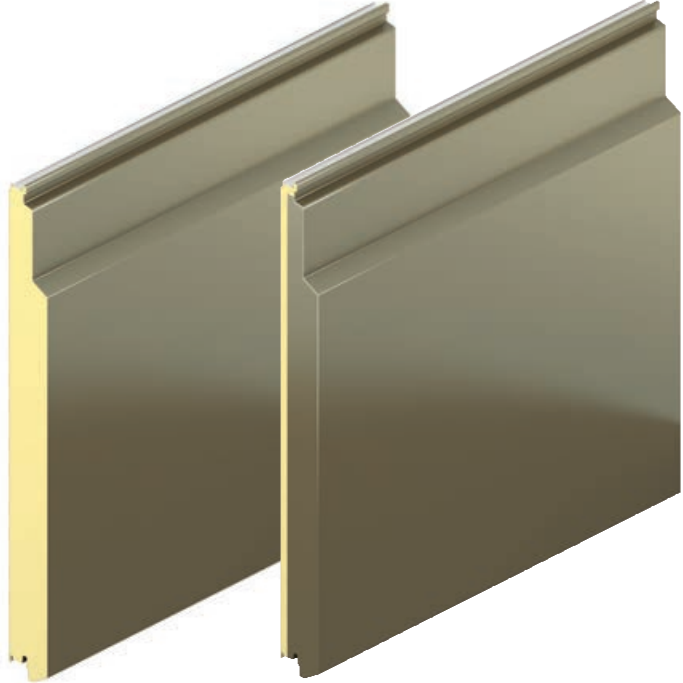
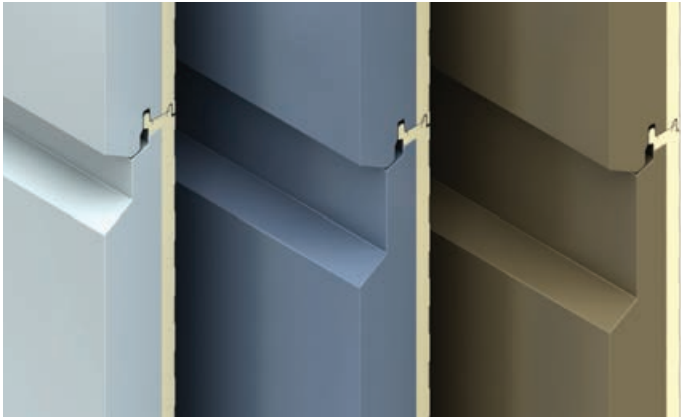


**BENCHMARK
Evolution Multi-Groove**

**BENCHMARK
Evolution Recess**

BENCHMARK EVOLUTION

DESIGN WALL SERIES



BENCHMARK Evolution Reveal

is a premium flat panel with a 50mm, 100mm or 150mm reveal along the panel.

BENCHMARK Evolution Reveal Recess

is a panel that has a combination of a variable reveal and 3D joint effect. Just another feature to create depth and detail to specifiers designs.

**BENCHMARK
Evolution Reveal**

**BENCHMARK
Evolution Reveal Recess**

BENCHMARK EVOLUTION

DESIGN WALL SERIES

BENCHMARK EVOLUTION DETAILS

Joint Options



Joint A

Aluminium (uncoated)
Flush insert

Joint B

Aluminium (uncoated)
Recessed insert

Joint C

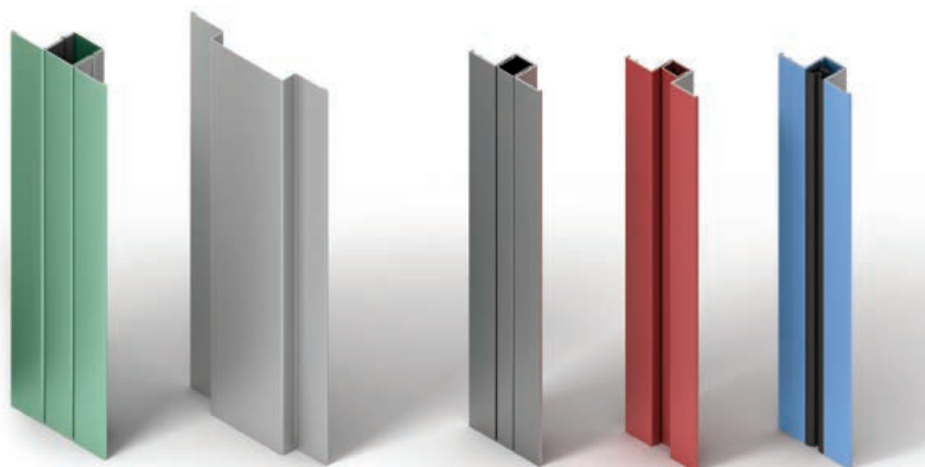
Aluminium (uncoated)
Rubber insert

Joint D

Folded steel
Flush insert

TOP HAT SECTIONS

Top hat sections, scalloped and profiled flashings are designed to blend in with other profiles and are available in steel up to 3 metres in length and aluminium up to 6 metres.



Top Hat A
Flush Insert
Steel

Vertical Joint
Steel

Top Hat TH1
Flushed
Aluminium

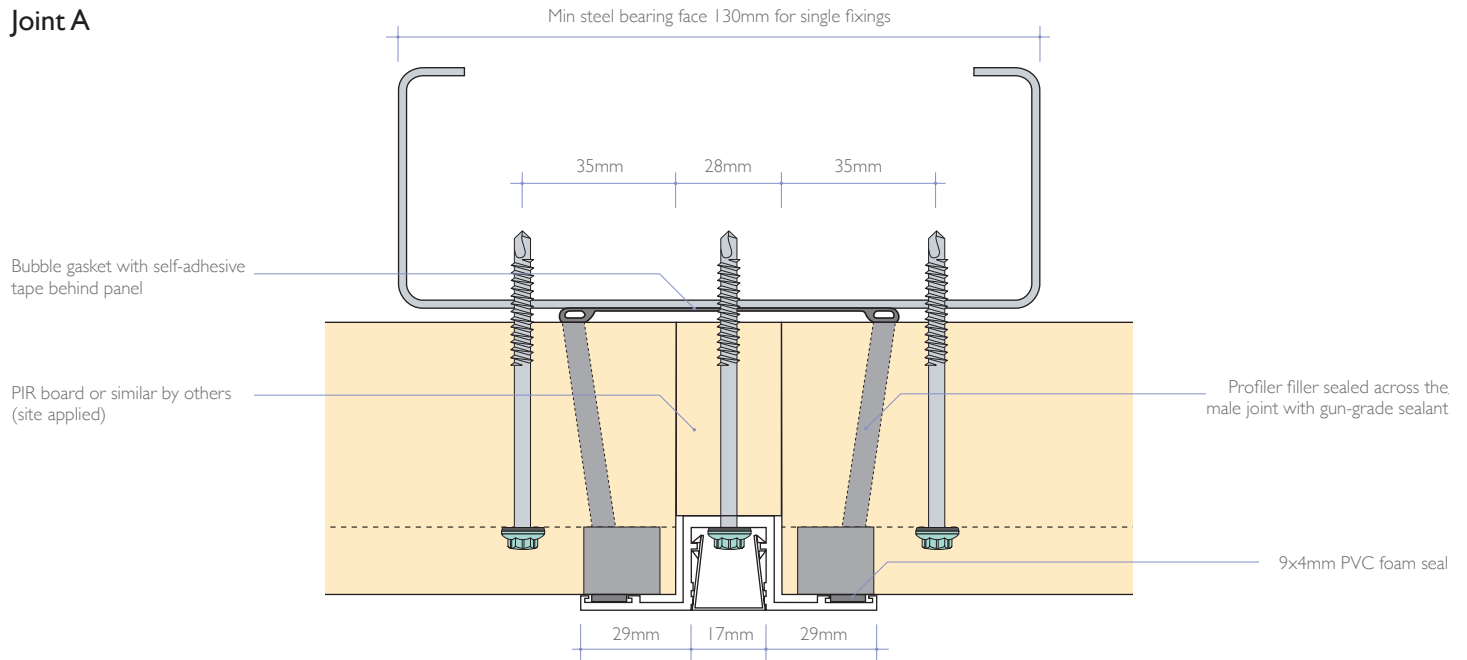
Top Hat TH2
Recessed
Aluminium

Top Hat TH3
Rubber Insert
Aluminium

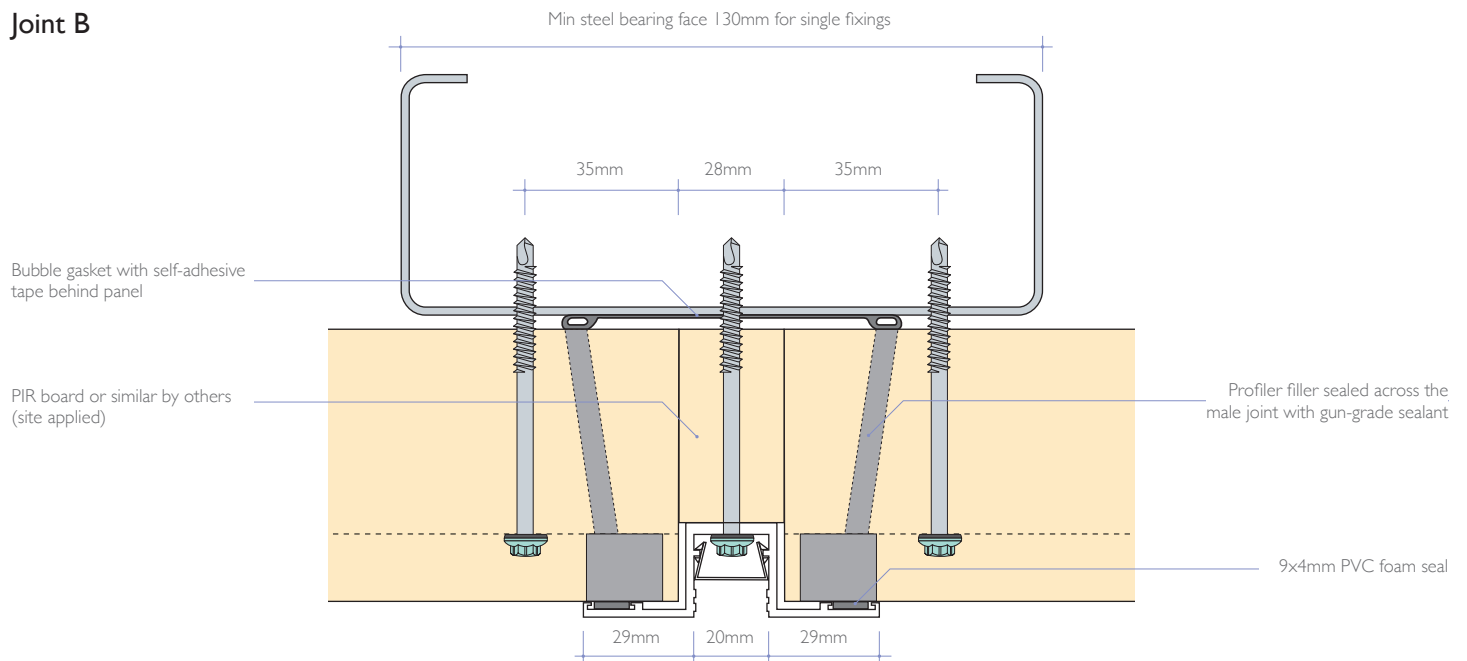
BENCHMARK EVOLUTION

DESIGN WALL SERIES

Joint A



Joint B

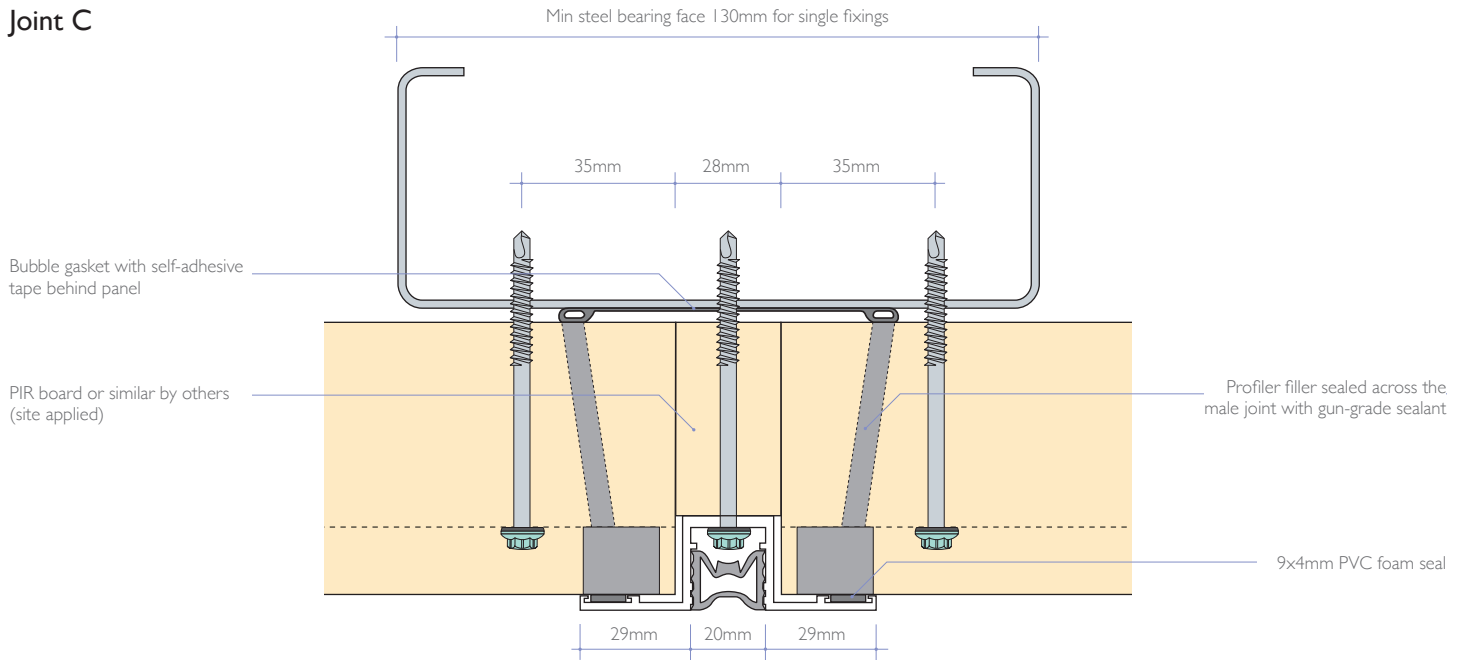


For a full suite of details on BENCHMARK Evolution please contact Technical Services.

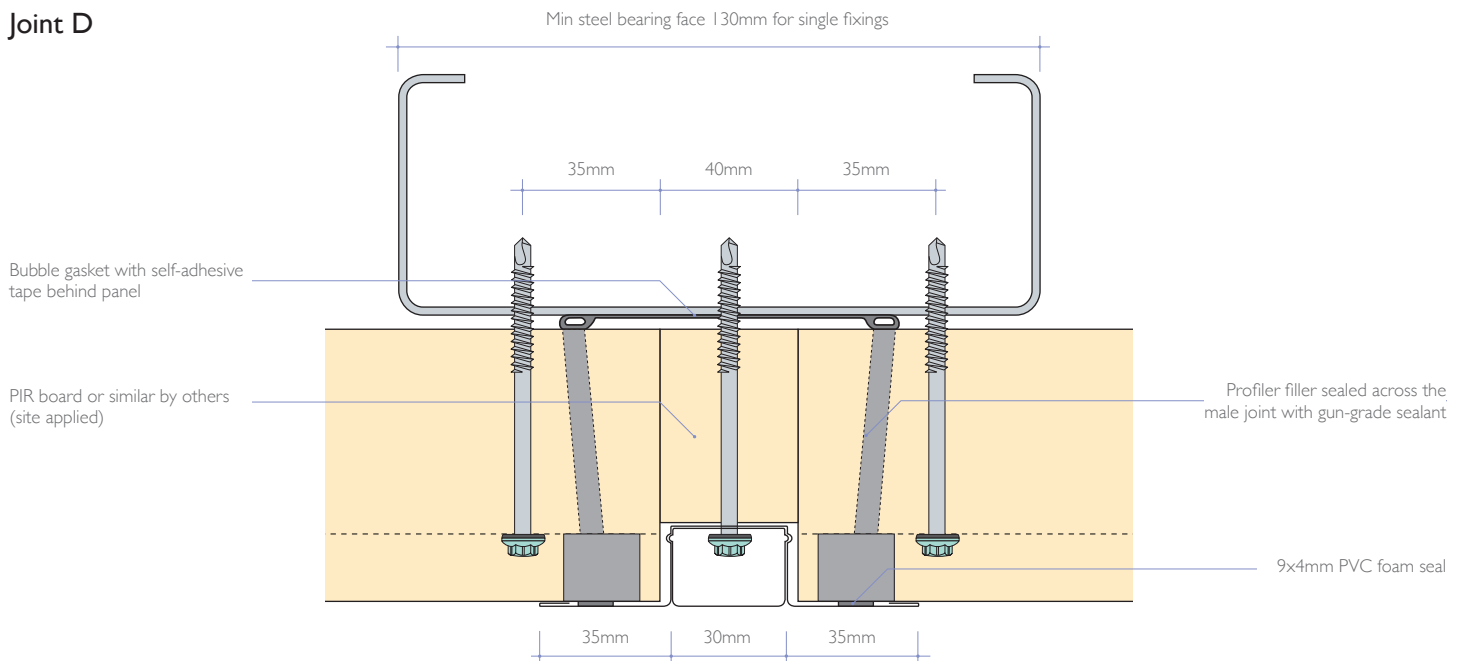
BENCHMARK EVOLUTION

DESIGN WALL SERIES

Joint C



Joint D



For a full suite of details on BENCHMARK Evolution please contact Technical Services.

BENCHMARK EVOLUTION

DESIGN WALL SERIES

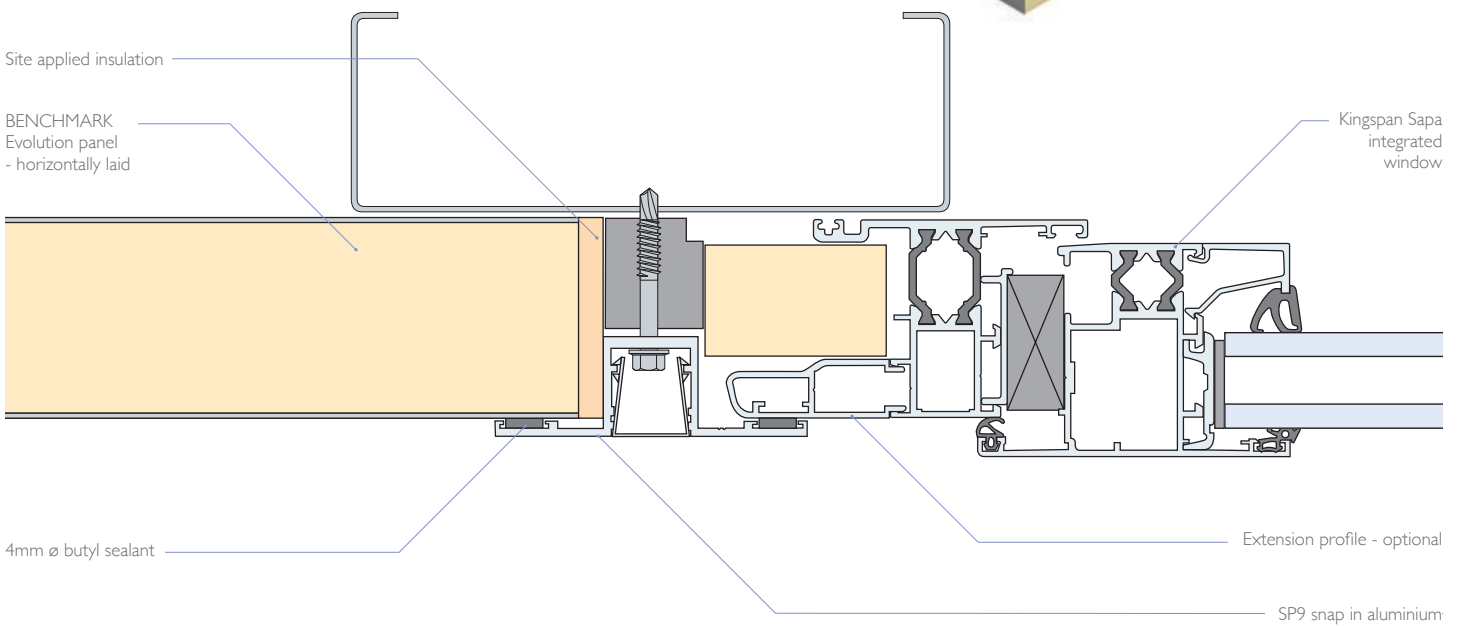


BENCHMARK EVOLUTION

DESIGN WALL SERIES

Integrated Window Jamb Detail Horizontal Application

- Designed to integrate with BENCHMARK Evolution panel systems.
- Aesthetically pleasing - no secondary flashings or additional sight lines.
- Designed to preserve and maintain the same weather proofing principles as Insulated panels.



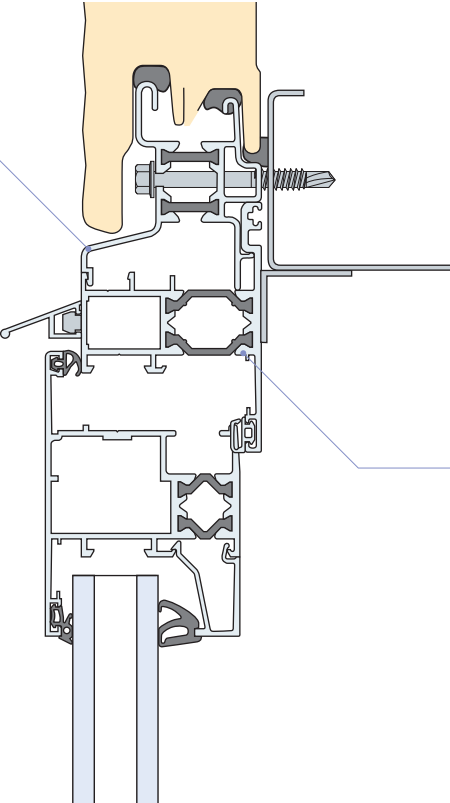
For a full suite of details on BENCHMARK Evolution please contact Technical Services.

BENCHMARK EVOLUTION

DESIGN WALL SERIES

Integrated Window Head Detail Horizontal Application

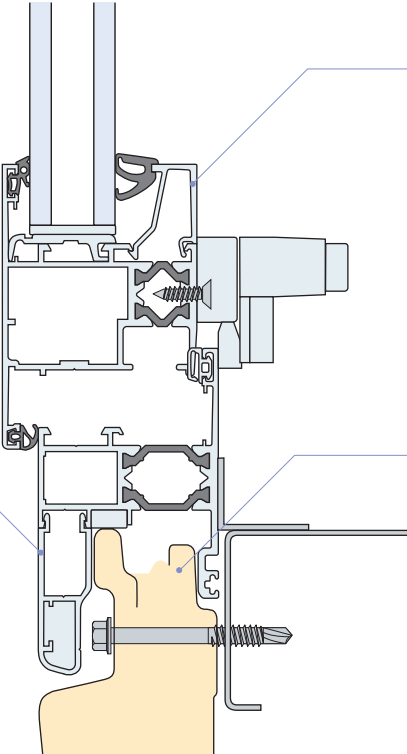
Window adapter



Kingspan Sapa integrated window

Integrated Window Sill Detail Horizontal Application

Window adapter



Kingspan Sapa integrated window

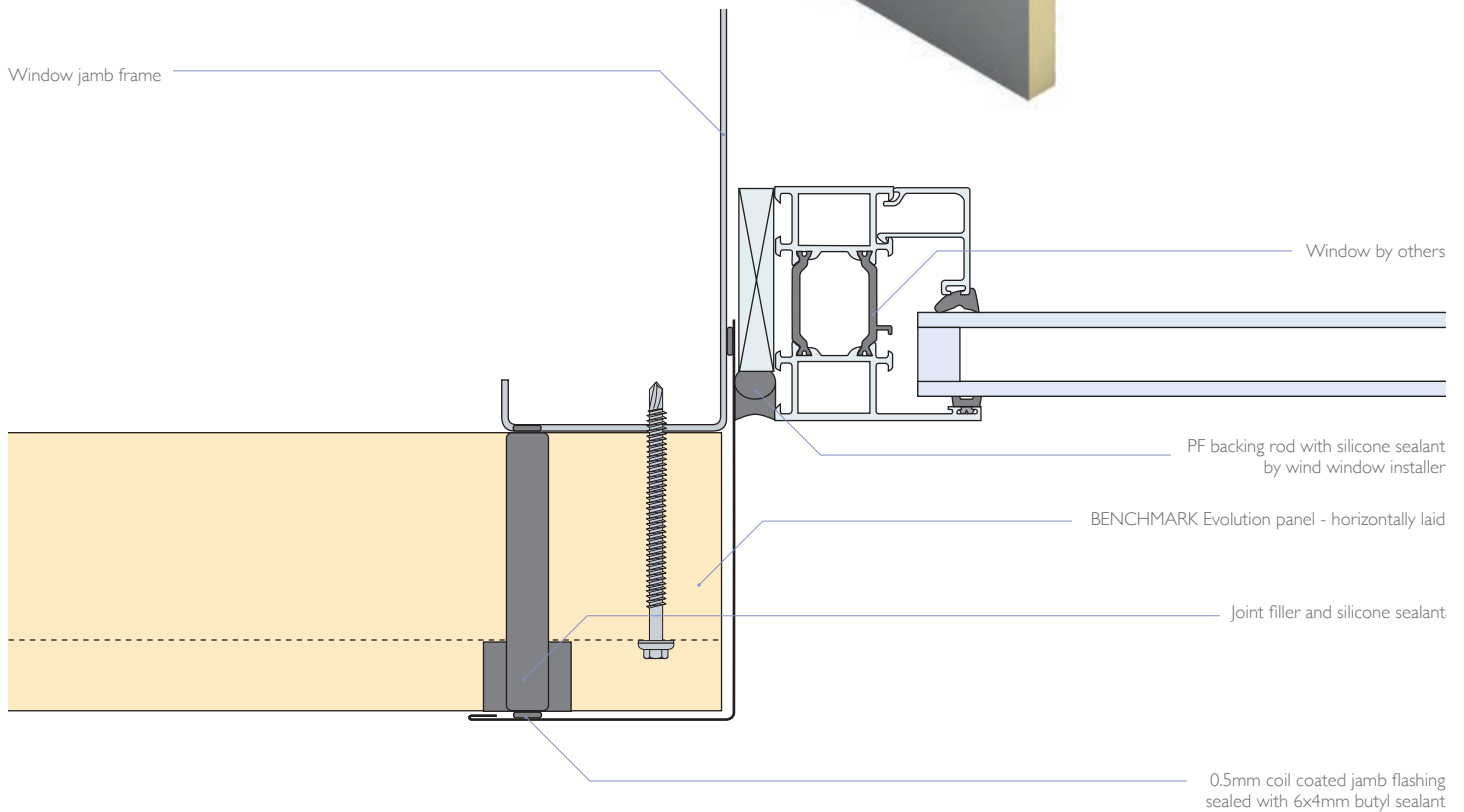
BENCHMARK Evolution panel
-horizontally laid

For a full suite of details on BENCHMARK Evolution please contact Technical Services.

BENCHMARK EVOLUTION

DESIGN WALL SERIES

Window Jamb Detail Horizontal Application

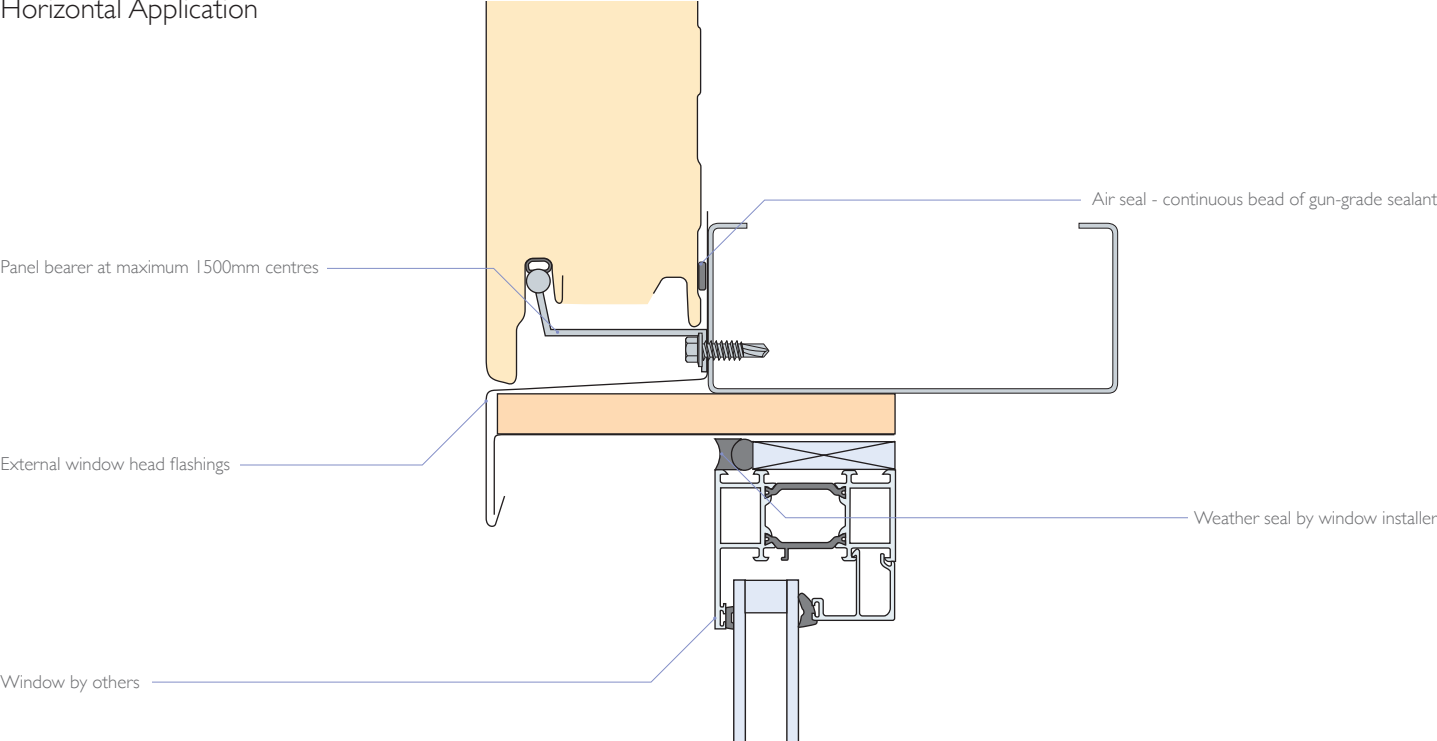


For a full suite of details on BENCHMARK Evolution please contact Technical Services.

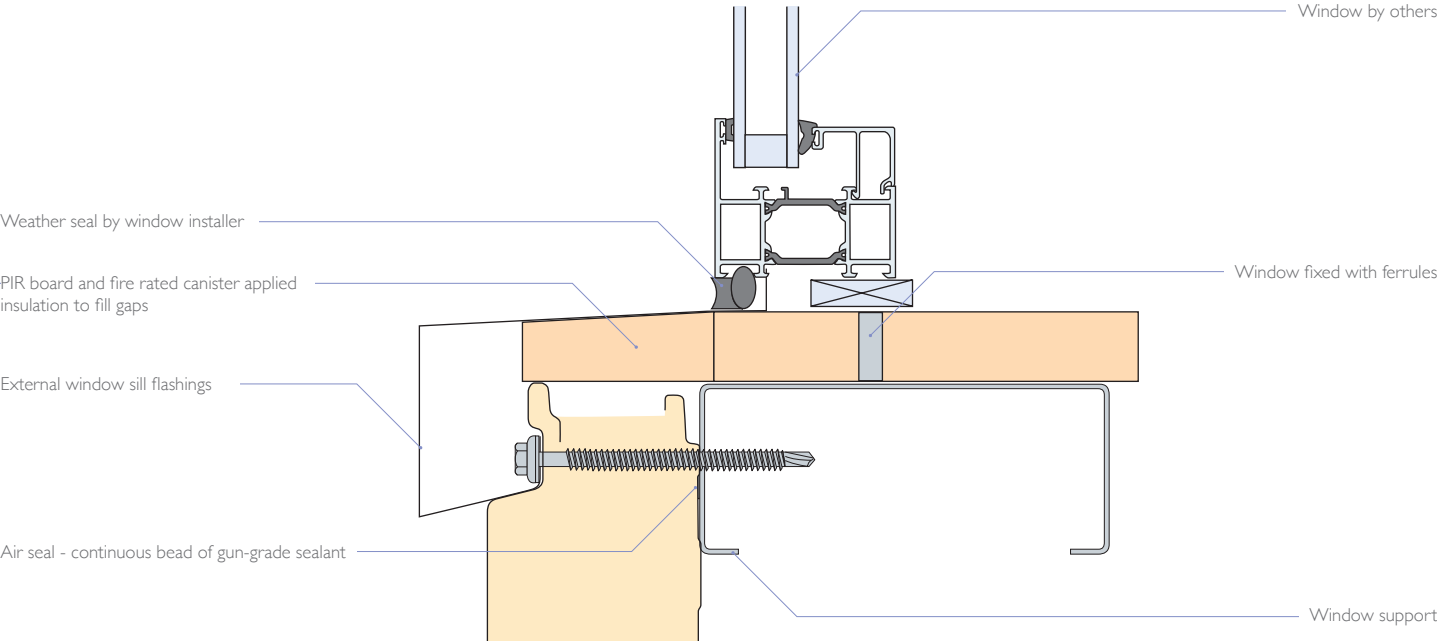
BENCHMARK EVOLUTION

DESIGN WALL SERIES

Window Head Detail Horizontal Application



Window Sill Detail Horizontal Application

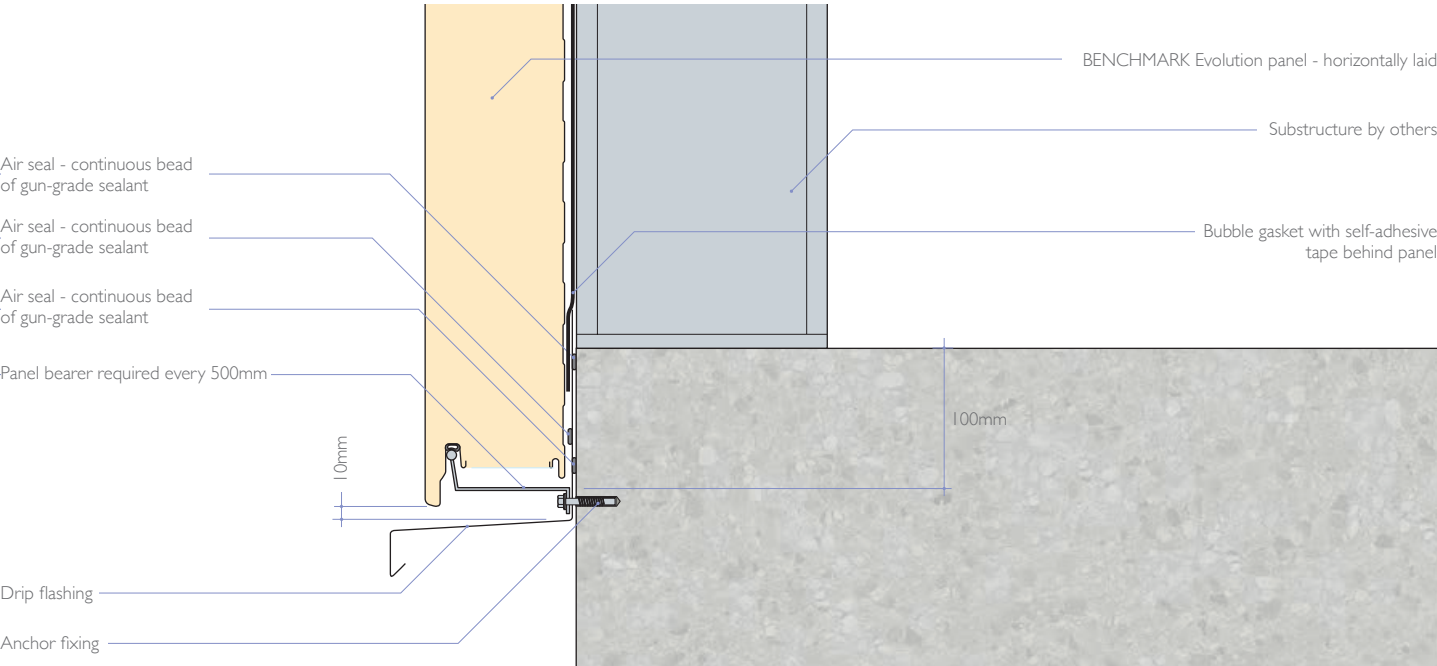
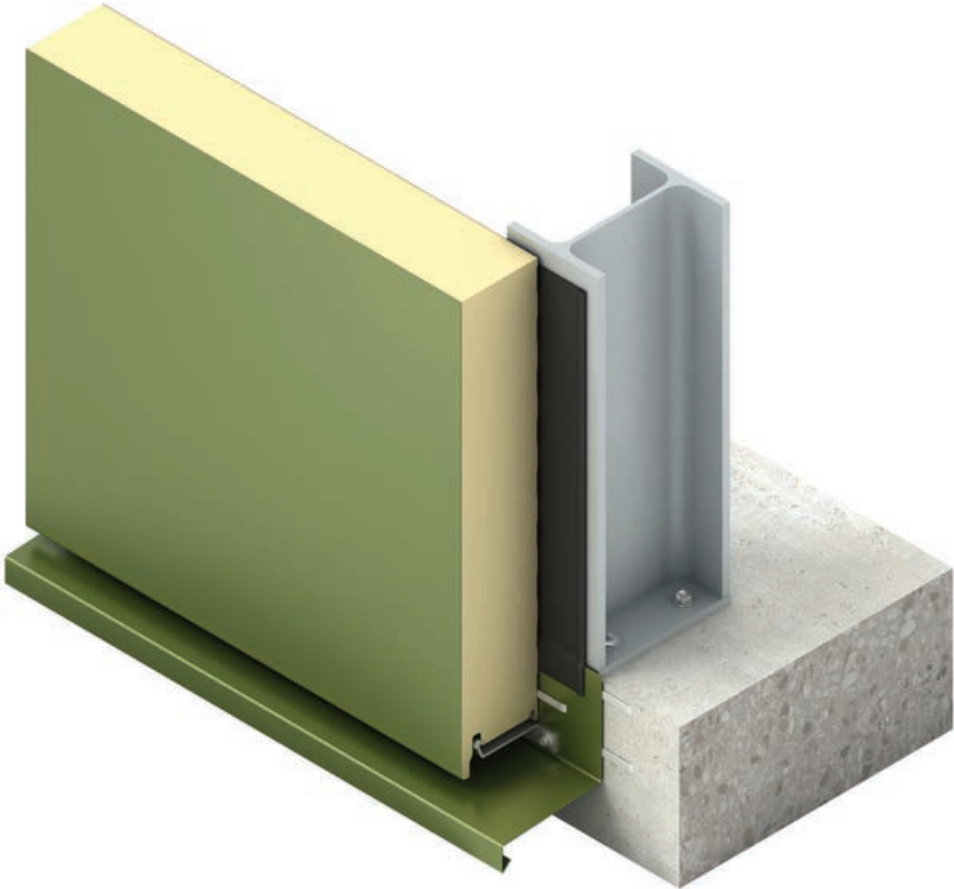


For a full suite of details on BENCHMARK Evolution please contact Technical Services.

BENCHMARK EVOLUTION

DESIGN WALL SERIES

Drip Detail
Horizontal Application

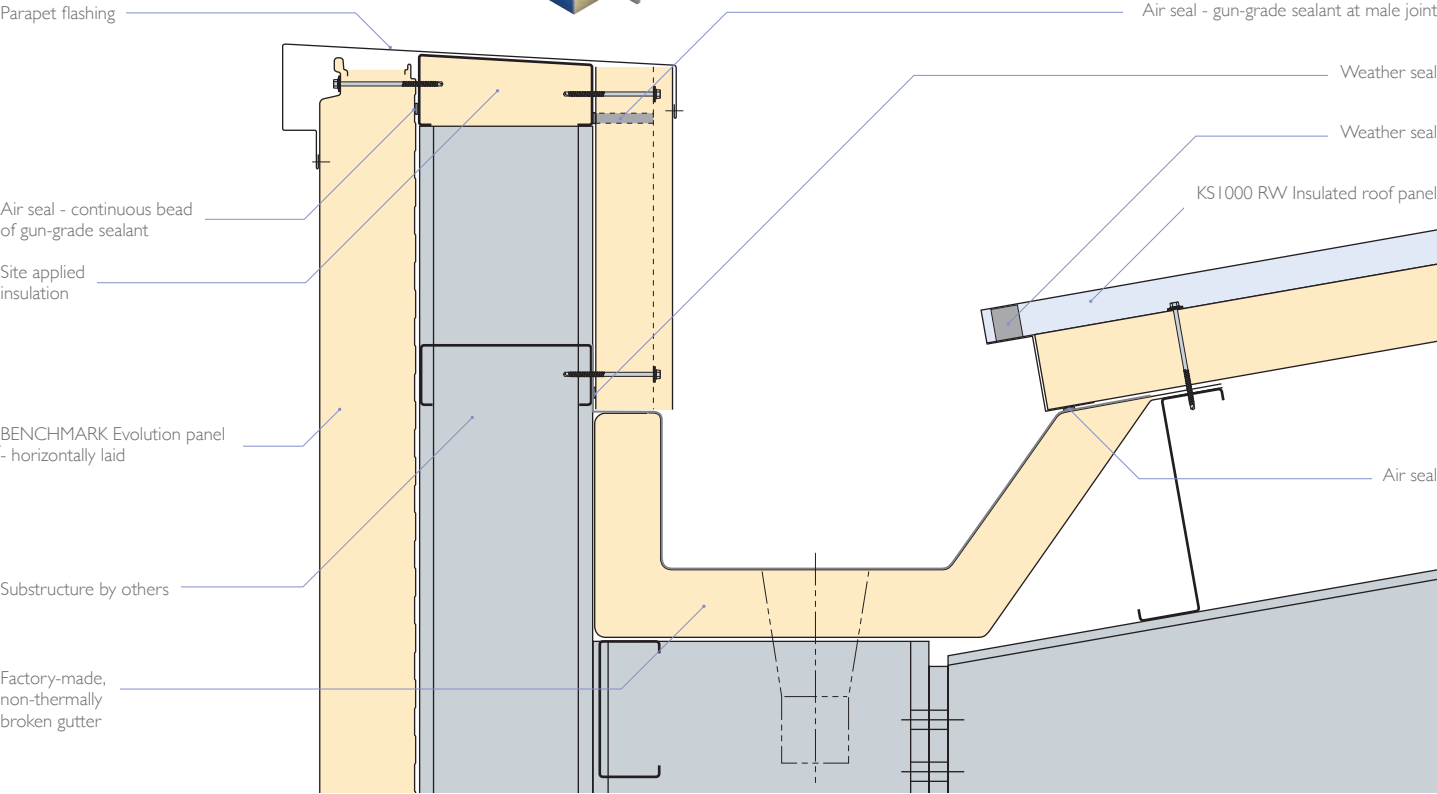
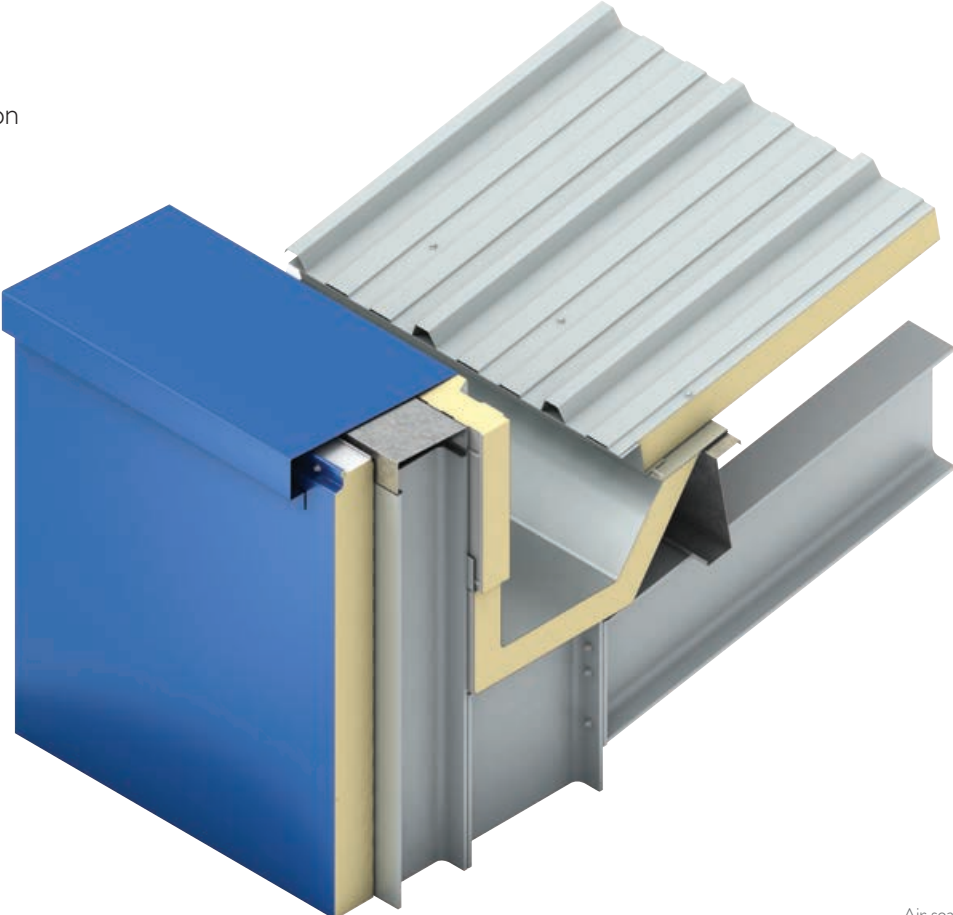


For a full suite of details on BENCHMARK Evolution please contact Technical Services.

BENCHMARK EVOLUTION

DESIGN WALL SERIES

Parapet Detail
Horizontal Application



For a full suite of details on BENCHMARK Evolution please contact Technical Services.

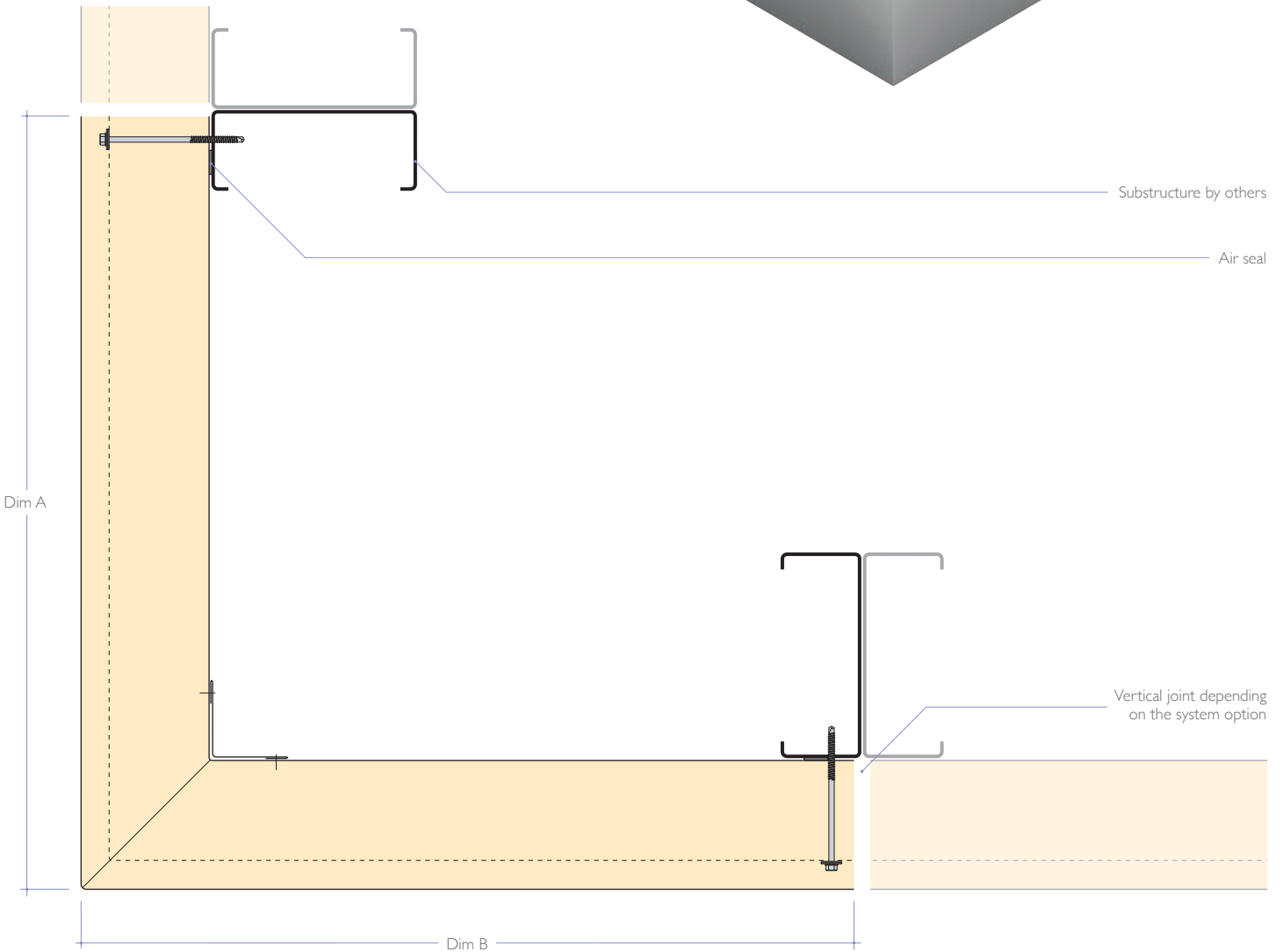
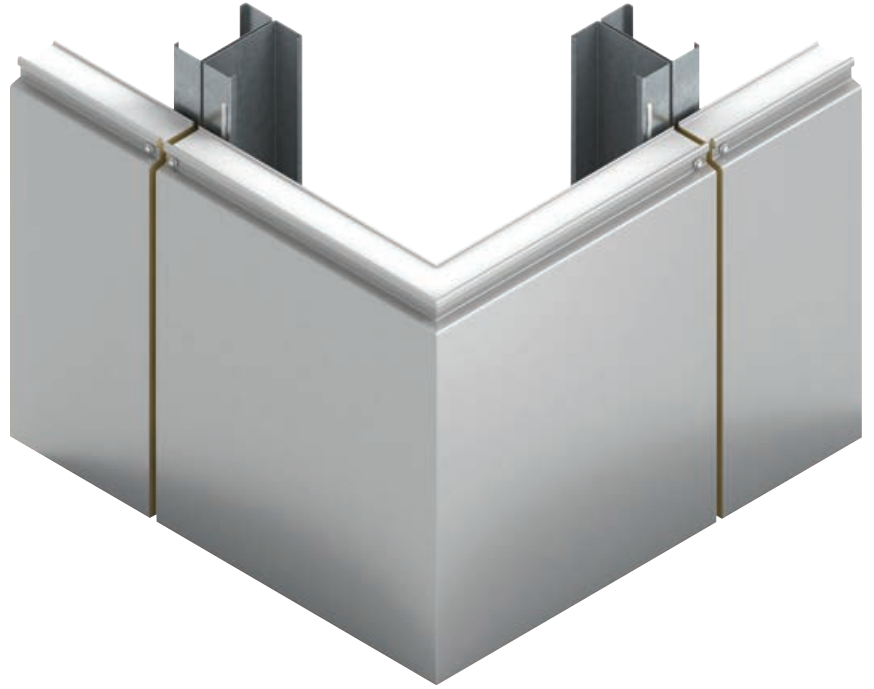
BENCHMARK EVOLUTION

DESIGN WALL SERIES

External Corner Detail Horizontal Application

Single-cranked Corner	Minimum	Maximum
Dimension A (mm)	300	1,500
Dimension B (mm)	300	1,500
Dimension D (deg)	82	152

Double-cranked / Chamfered Corner	Minimum	Maximum
Dimension A (mm)	300	1,500
Dimension B (mm)	300	1,500
Dimension C (mm)	300	1,500
Dimension D (deg)	82	152

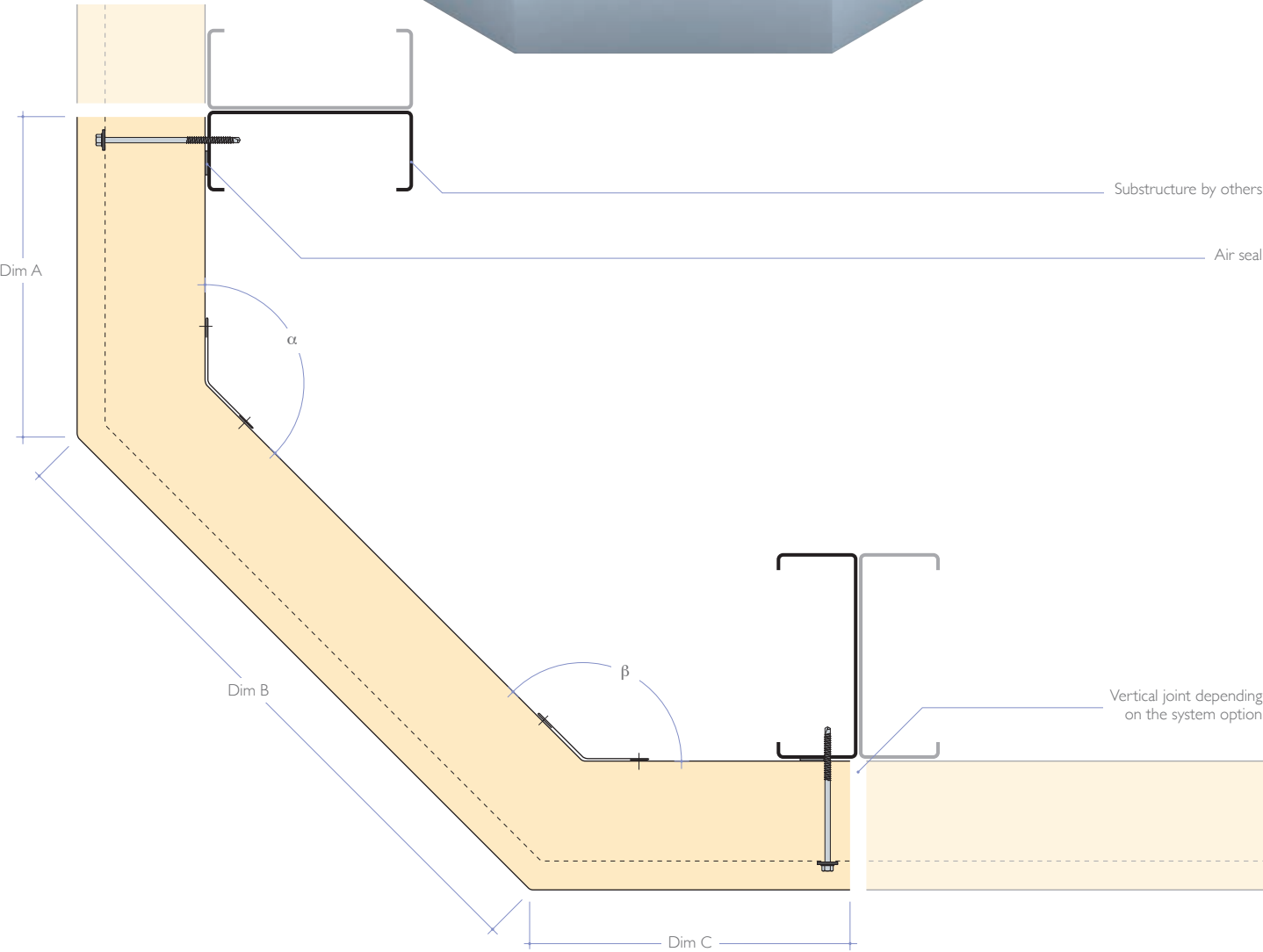
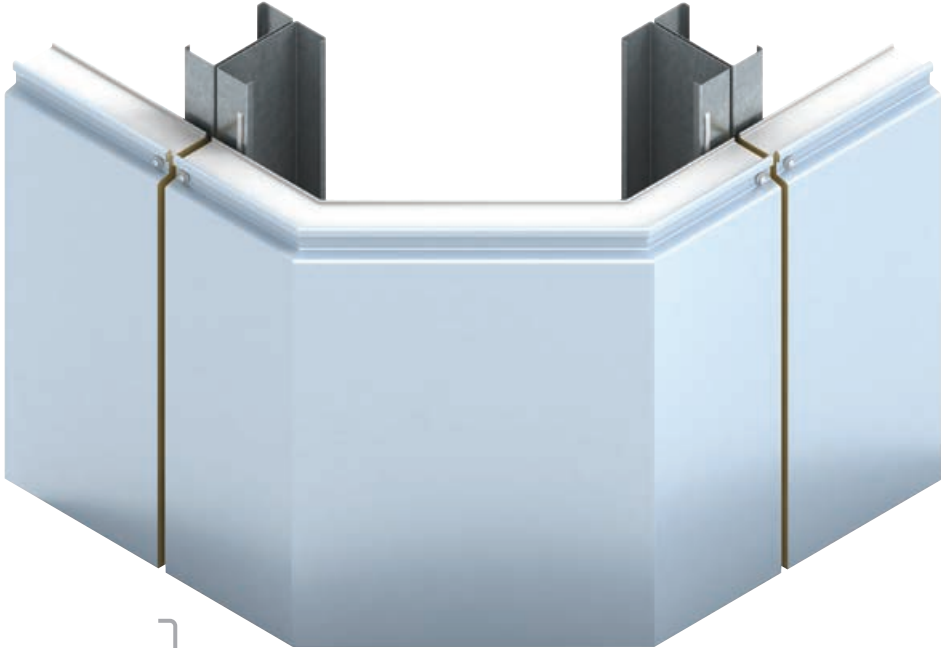


For a full suite of details on BENCHMARK Evolution please contact Technical Services.

BENCHMARK EVOLUTION

DESIGN WALL SERIES

External Corner Detail
Horizontal Application



For a full suite of details on BENCHMARK Evolution please contact Technical Services.





ENGINEERED FAÇADE SYSTEMS

ENGINEERED SYSTEMS

BENCHMARK Engineered Systems have been designed to display a range of façade options. BENCHMARK Engineered Systems utilise the same advanced insulated panel technology that delivers a high performance envelope, and at the same time eliminates complexities in design and build. Once installed the building is fully weathertight, allowing internal fit-out to commence and removing the façade from the critical path.

Manufactured under quality systems certified to BS EN ISO 9001:2008 (Quality Management), these systems are available with a single point guarantee, transferable to the building owner. The above systems can be installed on to a timber, concrete or steel framework.

For more details and technical information on your chosen solution, please refer to the BENCHMARK website or contact the Technical Services.

Project: Higher Broughton Community Hub, UK
Product: Trespa Façade on BENCHMARK Karrier Panel System

Tel: +61 (02) 8889 3000

BENCHMARK KARRIER

ENGINEERED FAÇADE SYSTEMS / ENGINEERED SYSTEM



BENEFITS

- Available with a wide range of secret fix and face fix façade options.
- The individual insulated panels can be installed either vertically or horizontally.
- Suitable for buildings of any height.
- Simple and fast construction.
- Easily accommodates openings, penetrations and complex façades.
- Simple integration with doors, windows, glazing, louvres and traditional construction materials.
- Airtightness less than $5\text{m}^3/\text{hr}/\text{m}^2$ certainty.
- Single point responsibility - one contractor installing the panel and façade.

The BENCHMARK Karrier System is a proven factory engineered building system which comprises individual high performance insulated panels designed to support the façades.

The lightweight panels can be manually lifted into position or can be installed with mechanical handling devices. This option is extremely flexible and can be considered at design and post design stages of a project.

The relevant secondary support/railing system required for the chosen façade is fixed directly to the outer skin of the BENCHMARK Karrier panel, removing all risk of cold bridging.

The panels can be fixed to a lightweight Steel Framing System. Alternatively, the panels can be fixed to a braced Multibeam purlin and rail system.

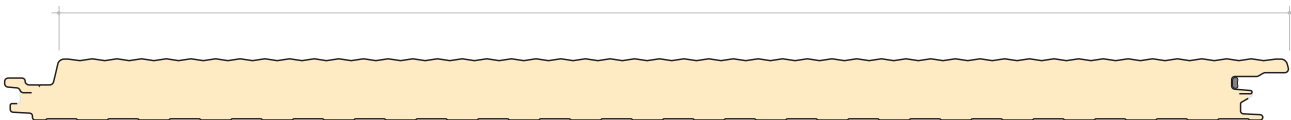
A comprehensive set of robust and thermally efficient details are available from the Technical Services.

PERFORMANCE

Panel Properties and Thermal Performance

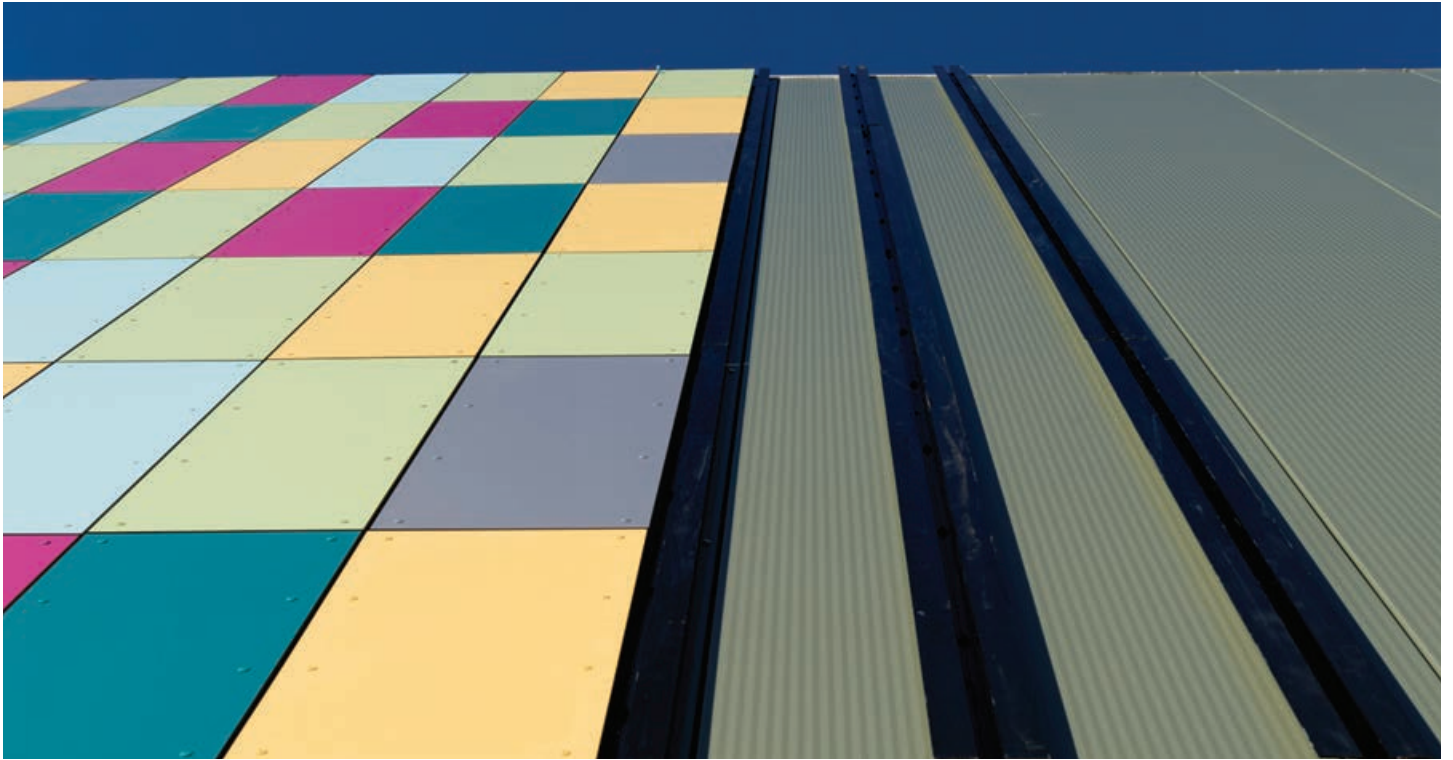
Core Thickness (mm)	50	80	100	140
R-value ($\text{m}^2\text{K}/\text{W}$)	2.65	4.15	5.15	7.15
U-value ($\text{W}/\text{m}^2\text{K}$)	0.38	0.24	0.19	0.14
Weight Kg/m^2 0.7/0.4 Steel	12.2	13.4	14.2	15.8

1000mm Cover width



BENCHMARK KARRIER

ENGINEERED FAÇADE SYSTEMS / ENGINEERED SYSTEM



Available Lengths

Standard lengths are from 2m to 13.7m. For longer lengths contact Technical Services. Maximum length for panels transported by rail is 12m. For orders supplied outside Australia maximum lengths are 11.8m.

Acoustics

For sound transmission reduction, BENCHMARK panels typically have a single figure weighted sound reduction index (SRI) of $R_w = 24\text{dB}$. For specific acoustic solutions contact Technical Services.

Frequency (Hz)	SRI (dB)
63	13
125	17
250	21
500	26
1000	26
2000	26
4000	42
8000	52
R_w	24

BENCHMARK WALL LINER

ENGINEERED FAÇADE SYSTEMS / ENGINEERED SYSTEM



BENEFITS

- Safe, quick and easy to install.
- Weathertight solution allows earlier internal fit out while façade is installed.
- Tongue and groove joint interfit achieves excellent airtightness performance.
- Achieves R-values as high as 10.15 m²K/W using 200mm panel.
- EcoSafe insulation core with zero Ozone Depletion (zero ODP) achieving BREEAM credit (Pollution 4: Insulant GWP) 2006 credit.
- A variety of internal liners are available.
- Factory fitted vapour seal.

BENCHMARK Wall Liner is an engineered insulated panel system that is ideal for fully supporting single-skin metal sheeting such as zinc, copper, turn-coated stainless steel or more modern metals like stainless steel and pre-formed aluminum sheeting.

BENCHMARK Wall Liner panels provide a hygienic, high performing and airtight wall solution. This build option allows rapid enclosure to the envelope whilst removing the metal façade from the critical path.

The panels can be fixed to a lightweight SFS. Alternatively, the BENCHMARK Wall Liner can be fixed to a braced Multibeam purlin and rail system.

This Engineered System delivers a superior thermal performance, achieving R-values as high as 10.15 m²K/W using 200mm panel.

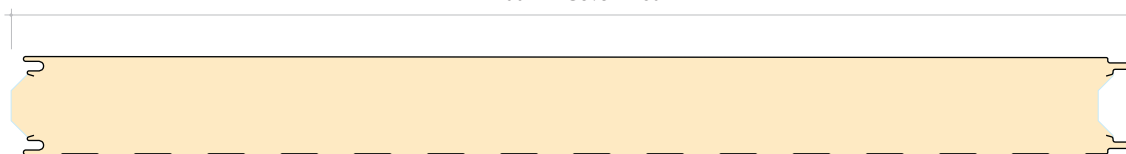
For further information on BENCHMARK Wall Liner System options, please contact the Technical Services.

PERFORMANCE

Panel Properties and Thermal Performance

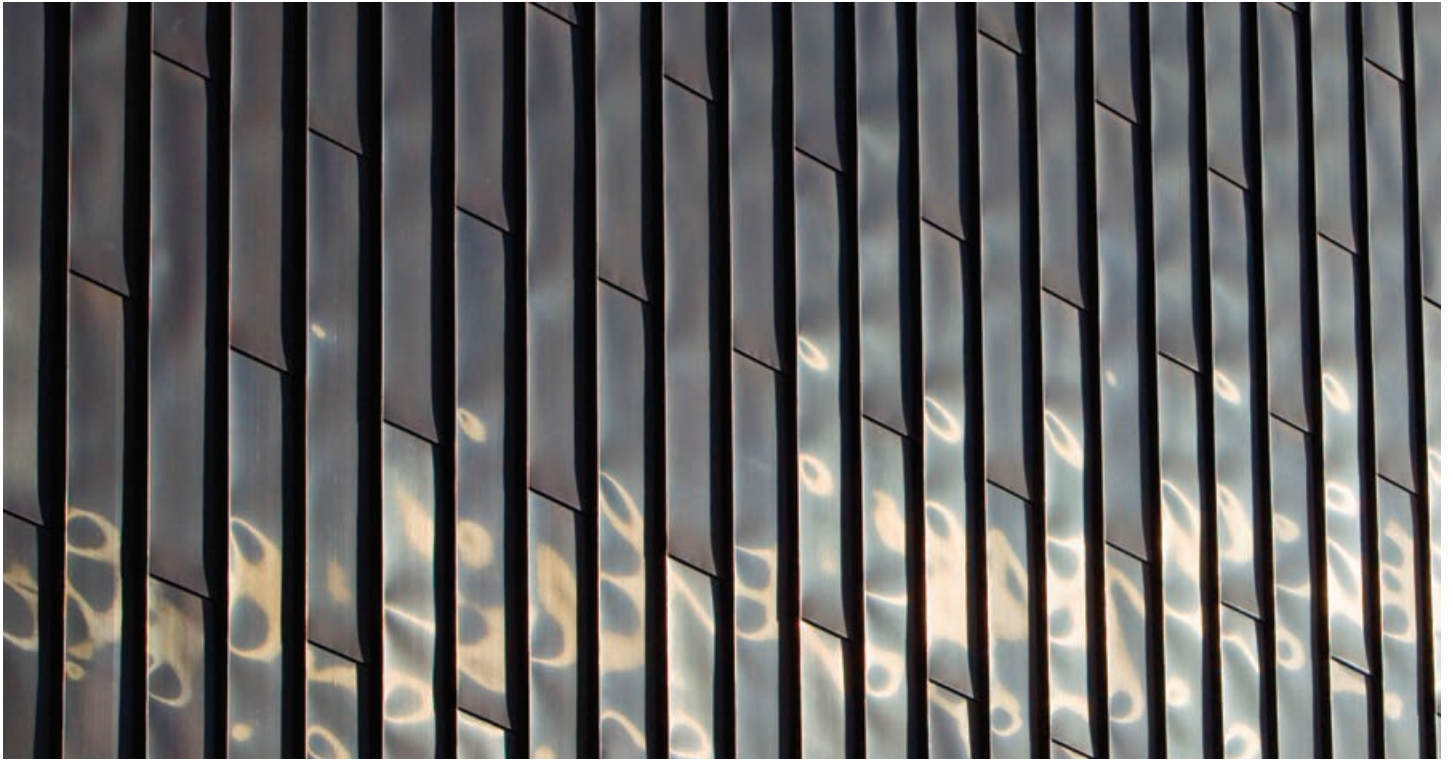
Core Thickness (mm)	50	75	100	125	150	200
R-value (m ² K/W)	2.65	3.90	5.15	6.40	7.65	10.15
U-value (W/m ² K)	0.38	0.26	0.19	0.16	0.13	0.10
Weight Kg/m ² 0.7/0.5 Steel	12.5	13.5	14.5	15.5	16.5	18.5

1100mm Cover width



BENCHMARK WALL LINER

ENGINEERED FAÇADE SYSTEMS / ENGINEERED SYSTEM



Available Lengths

Standard lengths are from 2m to 13.7m. For longer lengths contact Technical Services. Maximum length for panels transported by rail is 12m. For orders supplied outside Australia maximum lengths are 11.8m.

Acoustics

For sound transmission reduction, BENCHMARK panels typically have a single figure weighted sound reduction index (SRI) of $R_w = 24\text{dB}$. For specific acoustic solutions contact Technical Services.

Frequency (Hz)	SRI (dB)
63	13
125	17
250	21
500	26
1000	26
2000	26
4000	42
8000	52
R_w	24





ENGINEERED FAÇADE SYSTEMS

FAÇADE OPTIONS

BENCHMARK has joined forces with market leading suppliers to provide an inspirational range of façades, from contemporary aluminium composite to warm ceramic terracotta tiles.

Project: College of Law, Birmingham, UK
Product: Ceramic Tile

Tel: +61 (02) 8889 3000

FAÇADE OPTIONS

ENGINEERED FAÇADE SYSTEMS / FAÇADE OPTIONS



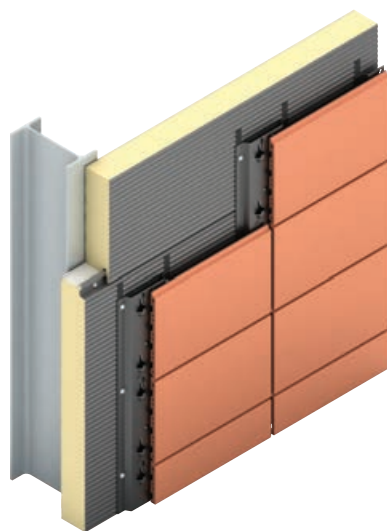
FAÇADE FINISH OPTIONS

The BENCHMARK Karrier System features a range of façade colours, finishes and textures, including:

- ACM
- Tile featuring ceramic tiles
- HPL featuring high pressure laminates.



ACM



Ceramic Tile



HPL

ACM

ENGINEERED FAÇADE SYSTEMS / FAÇADE OPTIONS

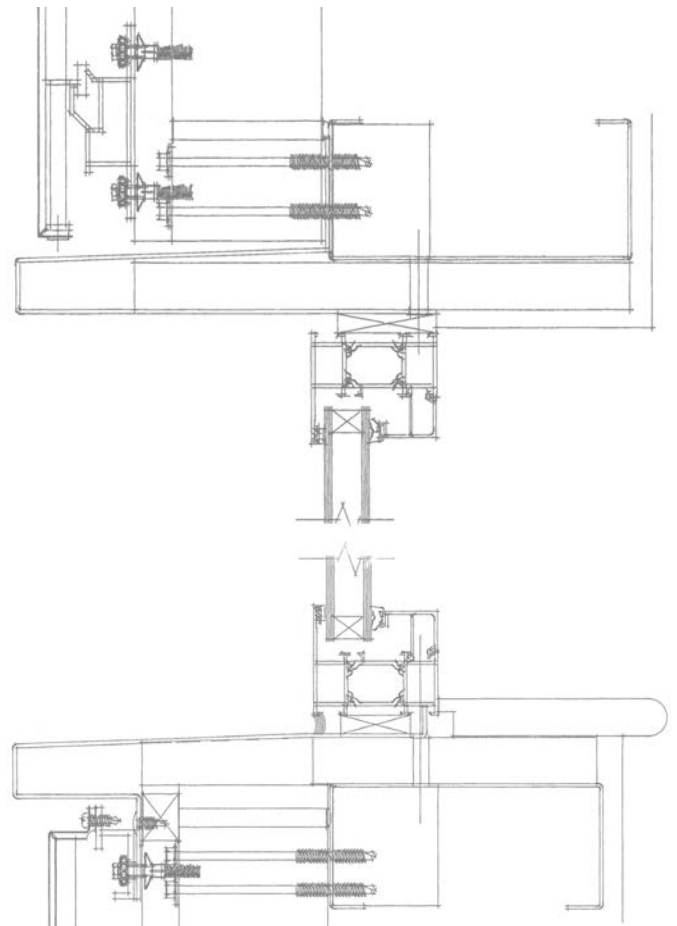


ACM is a lightweight composite material, consisting of two aluminium cover sheets and a core made of polyethylene. It is a simple and versatile product which delivers a weather resistant, unbreakable and shock resistant façade which combined with the BENCHMARK Karrier panel system is very easy to install.

Available in an array of colours, textures and graphics, the façades achievable with this metallic cladding are endless.

BENEFITS

- Superior flatness.
- Vibration damping.
- Lightweight.
- Versatile in design, i.e. curves, bespoke printing.
- Easily fabricated.
- Large panel sizes are available.
- 100% recyclable.



CERAMIC TILE

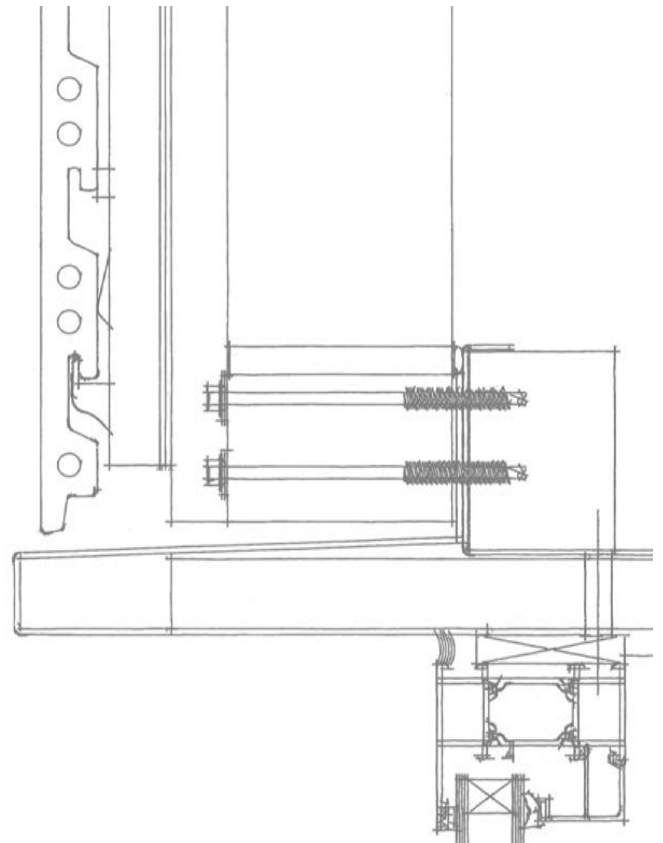
ENGINEERED FAÇADE SYSTEMS / FAÇADE OPTIONS



Ceramic tile is one of the most attractive versatile, long lasting and sustainable materials available. This façade can deliver a highly contemporary finish, or compliment traditional textures and qualities. This authentic terracotta tile is available in a number of earthy colours as well as the rich terracotta associated with the material. The unique design allows fast simple installation for buildings up to 40 storeys high ensuring durability in colour fastness and maintenance free finish.

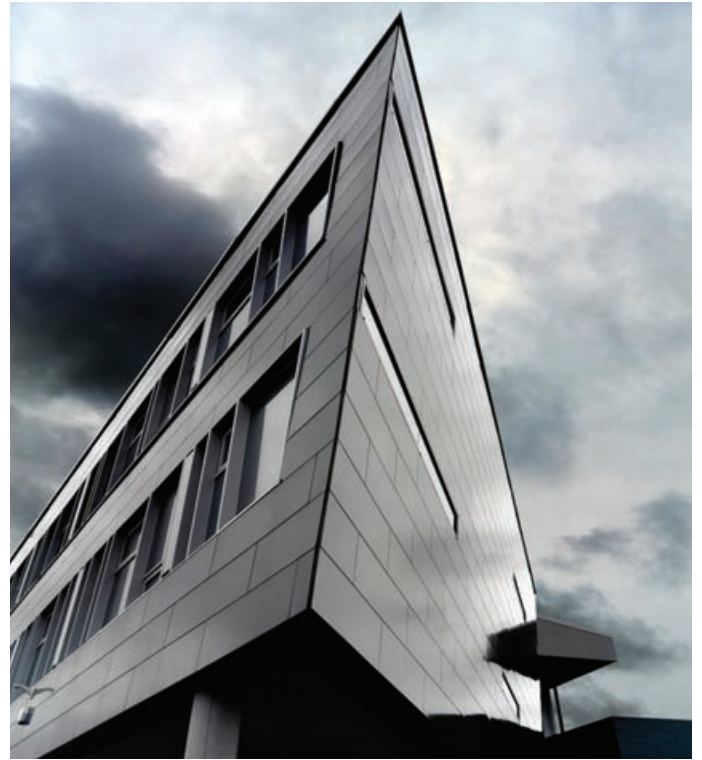
BENEFITS

- Offers design flexibility, i.e. profiled faces and a variety of module sizes.
- Fast and simple installation.
- Secret-fix only, individual tiles clip onto the railing system.
- Frost proof.
- Light and colour-fast, resistant to UV light.
- Low water absorption.
- Superior resistance to aggressive environmental effects.



HPL COMPACT

ENGINEERED FAÇADE SYSTEMS / FAÇADE OPTIONS



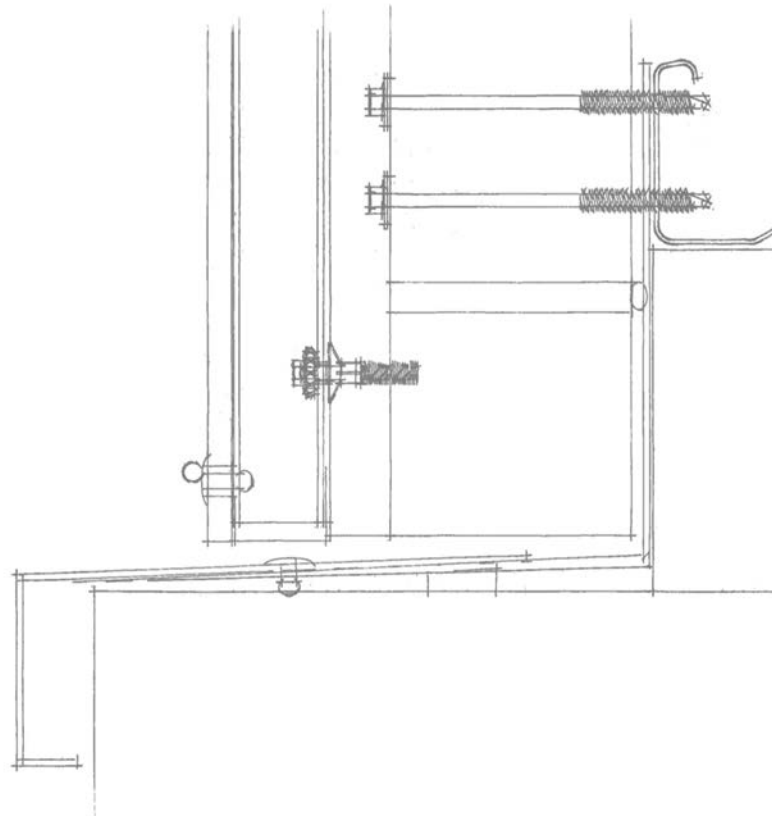
High pressure laminate façades range offers nearly limitless design possibilities with various colours rhythms and depths to the next generation architectural claddings. Extensively used in vertical applications, façades are vandal resistant, robust and have a long life performance.

The HPL system is available in both secret fix and face fixed options, offering endless dimensions to the façades achievable.

The panels can be combined easily with other building materials to create one of a kind dramatic façades.

BENEFITS

- Versatile façade solution.
- Very high resistance to impact damage.
- Face fix and secret fix façade options.
- Low maintenance and easy to clean.
- Resistant to moisture, mold and no edge treatment is required.







ROOF SYSTEMS

BENCHMARK Roofliner is ideal for standing seam waterproofing systems and single ply membranes. This panel system can be installed from rafter-to-rafter.

Product: BENCHMARK Roofliner

Tel: +61 (02) 8889 3000

BENCHMARK ROOFLINER

ROOF SYSTEM / STANDING SEAM & MEMBRANE



BENEFITS

- Safe, quick and easy to install.
- Ideal for zinc, stainless steel and aluminium standing seam systems and single-ply membranes.
- Suitable for flat, low pitch and roof applications.
- Available in a larger range of thicknesses.
- Achieves R-values as high as 10.15 m²K/W using 200mm panel.
- Attractive flat internal liner profile.
- Creates a safe working platform, allowing early removal of safety nets.

BENCHMARK Roofliner is an insulated roof panel system that is ideal for standing seam finishes. The panels are specifically designed for zinc, stainless steel and aluminium standing seam waterproofing systems and single-ply membranes.

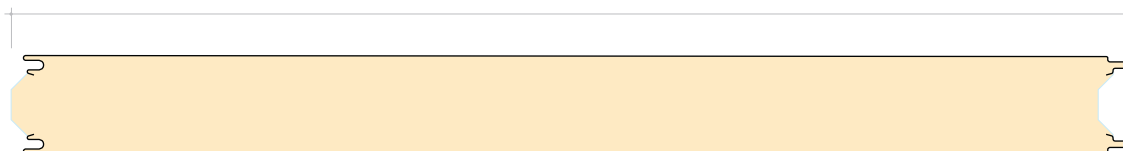
BENCHMARK Roofliner insulated panels enhance weathertightness, thermal, airtightness, fire resistance and the structural performance of a building.

PERFORMANCE

Panel Properties and Thermal Performance

Core Thickness (mm)	50	75	100	125	150	200
R-value (m ² K/W)	2.65	3.90	5.15	6.40	7.65	10.15
U-value (W/m ² K)	0.38	0.26	0.19	0.16	0.13	0.10
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1100mm Cover width



BENCHMARK ROOFLINER

ROOF SYSTEM / STANDING SEAM & MEMBRANE



Available Lengths

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Acoustics

For sound transmission reduction, BENCHMARK Roofliner panels typically have a single figure weighted sound reduction index (SRI) of $R_w = 24\text{dB}$. For specific acoustic solutions contact Technical Services.

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R_w	24

BENCHMARK GREEN ROOF SYSTEM



Green roofs create an attractive environment whilst enhancing the thermal and acoustic performance, with less impact on sustainability than traditional methods.

BENCHMARK has specifically engineered insulated roof panels designed to support extensive and intensive green roof systems.

Green roof systems transform urban space into a greener environment, helping to reduce dust, smog levels, and retain rainwater thereby aiding flood management.

Used increasingly on projects such as schools, healthcare and city centre buildings for visual appeal or to create a useable space, our panels enhance thermal and acoustic performance with less impact on sustainability than traditional methods.

For information on using a BENCHMARK Green Roof support system, please contact Technical Services.

BENEFITS

- Cost-effective green roof solution.
- Safe, quick and easy to install.
- Lightweight, highly insulated and energy efficient.
- Lifetime insulation continuity, thermal performance and airtightness (less than $5\text{m}^3/\text{hr}/\text{m}^2$) certainty.
- Reduced energy usage.
- Moderation of Urban Heat Island Effect.
- Improved air quality.
- Urban agriculture.
- Increased biodiversity.

BENCHMARK GREEN ROOF SYSTEM



BENCHMARK SERVICES

“As a manufacturer we go far beyond delivering a wide range of market leading products. The team is on hand to assist clients, specifiers and contractors.”

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Area Sales Manager

Available to assist you in the appropriate selection and specification of our range of systems and solutions, the Area Sales Manager can provide you with a local and responsive service.

Customer Services

Offer advice on lead times and minimum order quantities. The team are responsible for issuing quotes, coordinating the manufacture of your panel requirements with the production team, scheduling delivery and keeping you updated with the progress of your order.

Technical Services

Offer technical advice and support throughout the design and construction process. From the provision of project specific details through to the creation of project specific specifications, Technical Services can help to ensure that your building performs and complies with the building regulations.

Field Service Support

Our Field Service team offers a free* total support package Contractor training on the installation of new and existing products

- On site training and support
- Pre-contract technical support and advice on specification compliance
- Site inspection service for the duration of the project contract period
- Pre-warranty site inspection
- Advice on mechanical handling solutions

* AUS / NZ only

Marketing Services

On hand to organise literature, samples and metal colour swatches.



A
TURNING
POINT
IN
BUILDING
DESIGN

BENCHMARK SUPPORT

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March 2015