

Architectural Facade Systems
CEME Division

Karrier system



Kingspan Architectural facade systems

At Kingspan, we provide architects, investors and installers with a comprehensive portfolio of advanced building envelope systems which are suitable for a multitude of applications and architectural styles. Our product range consists of visually appealing, certified, high performance and fast to install envelope solutions.

We work directly with architects, designers and building owners to provide them with the products, tools and services to create landmark buildings with all the aesthetics of leading, cutting edge design, coupled with highest thermal performance, fire protection and technical functionality.

Vilnius Gediminas Technical University
(VGTU)

Vilnius, Lithuania

Product
Karrier + ceramic tiles

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About Us

At Kingspan our mission is to design, develop and offer innovative, sustainable and durable architectural facade solutions to meet the demand of architects and construction professionals across wide range of industries.

We are part of Kingspan Group
What defines us is our relentless pursuit for better building performance whilst being Planet Passionate in everything we do. We are committed to accelerating a net zero emissions future with the wellbeing of people and planet at its heart.

From Local Irish Roots to Global Leader
The Kingspan Group has come a long way since its founding in 1965 in Kingscourt, Co Cavan, Ireland. We have grown largely by acquisition and globalisation remains at the heart of our ongoing evolution. While we retain our heritage and culture as a family business, we've grown to be the global leader in high-performance insulation and building envelopes. We help our customers and employees to make a difference in tackling climate change.

Kingspan Group in numbers:

212	22 000
manufacturing facilities	employees globally
+80	5
countries	business streams



Planet Passionate Programme

— our Mission for the Planet

Climate change is one of the most important issues facing the world today. To protect our planet, we need to prevent a 1,5°C rise in global temperatures this century. To do this, carbon emissions need to be cut to net zero globally by 2050 – but we are currently on course to miss this goal by at least five-fold.

The built environment has a key role to play in this challenge. Today, buildings and construction together account for **36%** of global final energy use and **39%** of energy-related CO₂ emissions when upstream power generation is included.

Planet Passionate – our global sustainability programme

Planet Passionate is Kingspan's ambitious 10-year global sustainability programme that aims to impact three big global issues:

- Climate change
- Circularity
- Protection of our natural world



By setting ourselves challenging targets in the areas of energy, carbon, circularity and water, we aim to make significant advances in the sustainability of both our business operations and our products.

Our 2030 global commitments



Energy

Increase our direct use of renewable energy to **60%** by 2030

Increase our on-site generation of renewable energy to **20%** by 2030

Install solar PV systems on **all owned facilities** by 2030



Carbon

Net zero carbon manufacturing by 2030

50% reduction in product CO₂ intensity from our primary supply partners by 2030

Zero emission ready company cars by 2025



Circularity

1 billion PET bottles upcycled into our manufacturing processes by 2025

All **QuadCore®** insulation to utilise upcycled PET by 2025

Zero company waste to landfill by 2030



Water

5 active ocean clean-up projects by 2025

100 million litres of rainwater harvested by 2030



Rainscreen facade solutions - introduction



Ventilated facade systems are a Karrier panel system with QuadCore®, IPN or K-Roc® high performance insulation core to which a wide range of metallic and non-metallic exterior cladding can be installed.

All insulated wall panels are individually prefabricated modules and consist of steel cladding and an insulation core. The Karrier system provides excellent thermal performance, water and airtightness as well as superb fire performance. Once delivered to the construction site, the panels are ready to assembly. Can be installed two times faster compared to other traditional facade systems. Systems comply with all regulations and can successfully replace traditional multicomponent ventilated facade.

System performance



Thermal

Facade elements have integrated insulation core with proven superior thermal performance. Wide range of thicknesses allow to meet any U-value requirements. Connection between elements eliminates thermal bridges which are often present in alternative ventilated systems.



Fire

Karrier systems has been tested and approved to European standards complying with all relevant building regulations. Please refer to specific product data sheets for detailed reaction to fire and fire resistance characteristics.



Superior airtightness and watertightness

One of the biggest sources of building heat loss (or heat gain) is air leakage, i.e. leaky buildings.

Kingspan facade panels are rigorously tested to ensure that they remain both airtight and watertight over the lifecycle of a building.



Acoustic

Kingspan systems have a minimum single weighted sound reduction index R_w of 25 dB. For details, please refer to specific product data sheets or contact our Technical department.



Structural

Facades elements of the system consist of two metal faces positioned on either side of an insulated core. All is bonded together creating one rigid element. Facades elements are self-supporting what limits number of substructure required.

The easiest, fastest and most cost effective strategy to reduce energy demand and construction costs is to utilise the high thermal performance and superior airtightness benefits of Kingspan architectural facade systems.



Karrier:

Introduction to the system



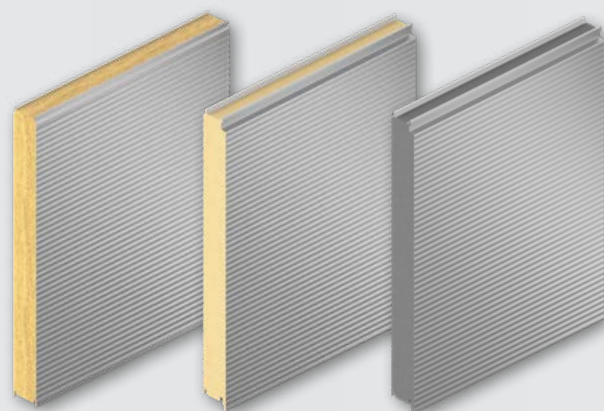
Karrier: Introduction

Karrier system is an advanced and versatile facade system based on a load-bearing insulation panel with QuadCore®, IPN or K-Roc® (mineral wool) high performance insulation core.

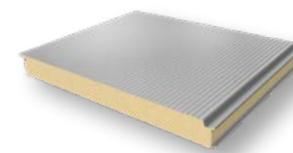
It is a modern architectural facade system with QuadCore®, IPN and K-Roc® mineral wool core, based on a sandwich panel specially designed and certified to transfer loads from the external facade cladding. A wide range of external cladding from leading manufacturers can be attached to Carrier panels. Carrier system allows you to build a weatherproof building envelope in a much shorter time compared to other alternative systems.

System Highlights:

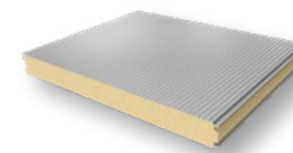
- Carrier can successfully replace traditional external wall and/or ventilated facade.
- Carrier system is about speed and simplicity. Can be installed in all weather conditions.
- Can be installed vertically and horizontally.
- System has excellent thermal and sound insulation properties as well as fire performance.
- Carrier system can be installed with almost any type of external cladding solution available on the market including: prefabricated aluminium cassettes Dri-Design, HPL, ACM, Fibercement, Ceramic or expanded Mesh.
- Carrier panels are available in three options:
 - Carrier QuadCore® - with QuadCore® insulation core
 - Carrier IPN - with IPN insulation core
 - Carrier K-Roc® - with mineral wool insulation core



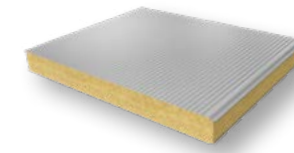
Karrier BK



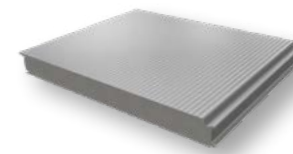
Karrier KL



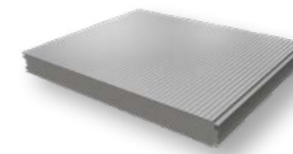
Karrier KT K-Roc®



Karrier BK QuadCore®



Karrier KL QuadCore®



Panel dimensions Carrier BK,
Carrier BK QuadCore®:

- Width: 1000 mm
- Length: 550 - 15000 mm
- Insulation core thickness: 80, 100, 120, 150, 170 mm

Panel dimensions Carrier KL,
Carrier KL QuadCore®:

- Width: 1000, 1150 mm
- Length: 550 - 15000 mm
- Insulation core thickness: 100, 120, 150, 170, 200 mm

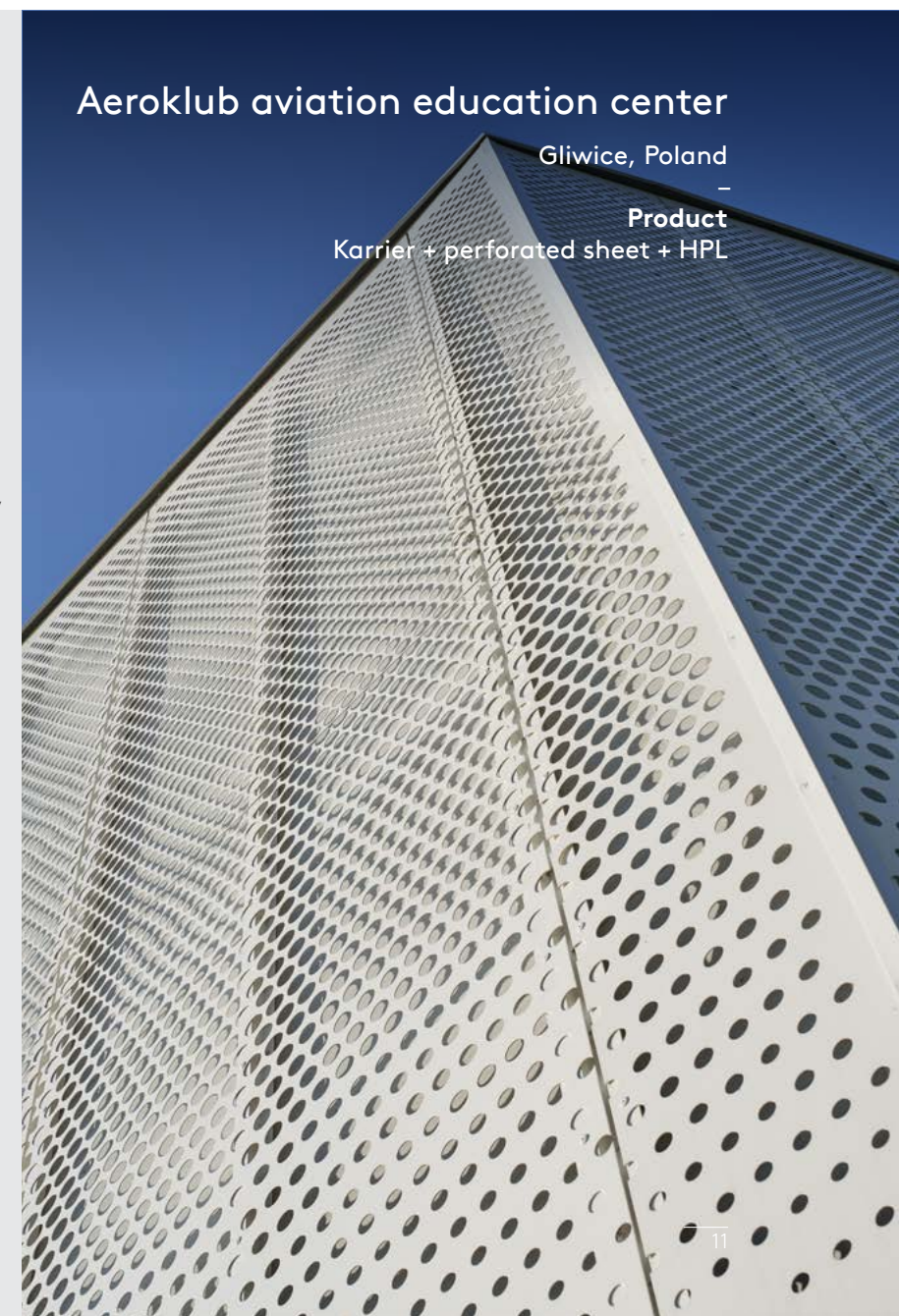
Panel dimensions Carrier KT K-Roc®:

- Width: 1000, 1150, 1200 mm
- Length: 550 - 14300 mm
- Insulation core thickness: 80, 100, 120, 150, 175, 200, 220, 240 mm

Aeroklub aviation education center

Gliwice, Poland

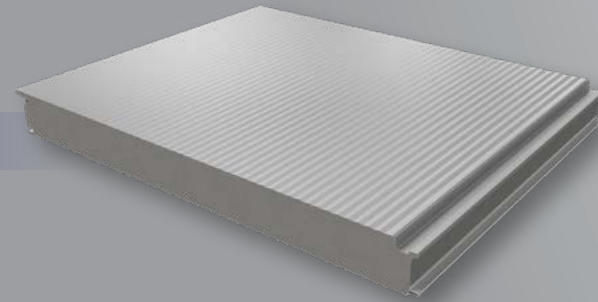
–
Product
Carrier + perforated sheet + HPL



Insulation options

Karrier panels are available in three insulation options:

1. Quad Core®



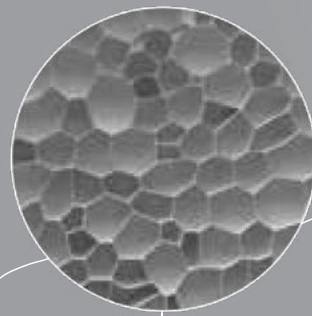
Innovation is at the core

Kingspan's invention of QuadCore® Technology is a leap forward in performance, helping to create future-proof buildings.

QuadCore® Technology is Kingspan's next generation self-blended hybrid insulation core with a unique formulation that creates distinctive grey microcells that deliver excellent:

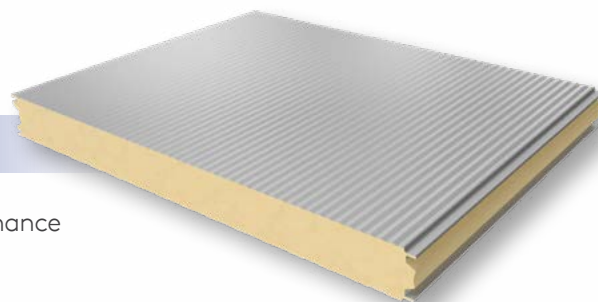
- Thermal efficiency
- Fire performance
- Environmental credentials
- Assured warranty

POWERED BY
QuadCore®
TECHNOLOGY



2. IPN

The IPN insulation core offers excellent thermal performance with tested U-values.



Each Karrier panel offers a superior performance and thermal efficiency over the years.



High Thermal Performance

With a lambda value of 0.019 W/mk, QuadCore® offers high thermal performance. It is almost twice as thermally efficient as mineral fibre insulation. The thermal efficiency of QuadCore® insulation technology can result in thinner and lighter panels for easier installation.



Environmental Performance

QuadCore® is free from CFC, HCFC, HFC and Halogenated Fire Retardants. QuadCore® Technology is independently certified to the highest levels for low VOC emissions, ensuring that it is not harmful to building occupants and does not adversely impact indoor environment quality (IEQ). QuadCore® insulated panels are certified with an Environmental Product Declaration (EPD) according to EN 15804+A2:2020, which brings together quantifiable environmental performance data. Its material efficiency and ease of disassembly can contribute towards credits in green building rating systems such as LEED and BREEAM.



Tested Fire Performance

QuadCore® insulated panels offer B-s1,d0 reaction to fire class and a range of panels have been subjected to rigorous large-scale tests for fire resistance. Additionally, a selection of QuadCore® panels are insurer approved to FM standards. Certain QuadCore® insulated panel systems have also achieved FM 4882 for smoke-sensitive occupancies.

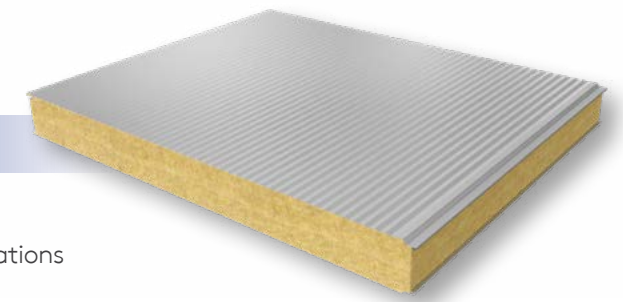


Aesthetics & Value

Complete QuadCore® roof, wall or façade systems - where Kingspan has supplied the panel and all system components - have the added reassurance of a single source system guarantee from Kingspan. QuadCore® Assured is our robust warranty, underpinned by third party independently tested products and externally audited processes to ensure on-going compliance, which along with internal management systems, enables product traceability.

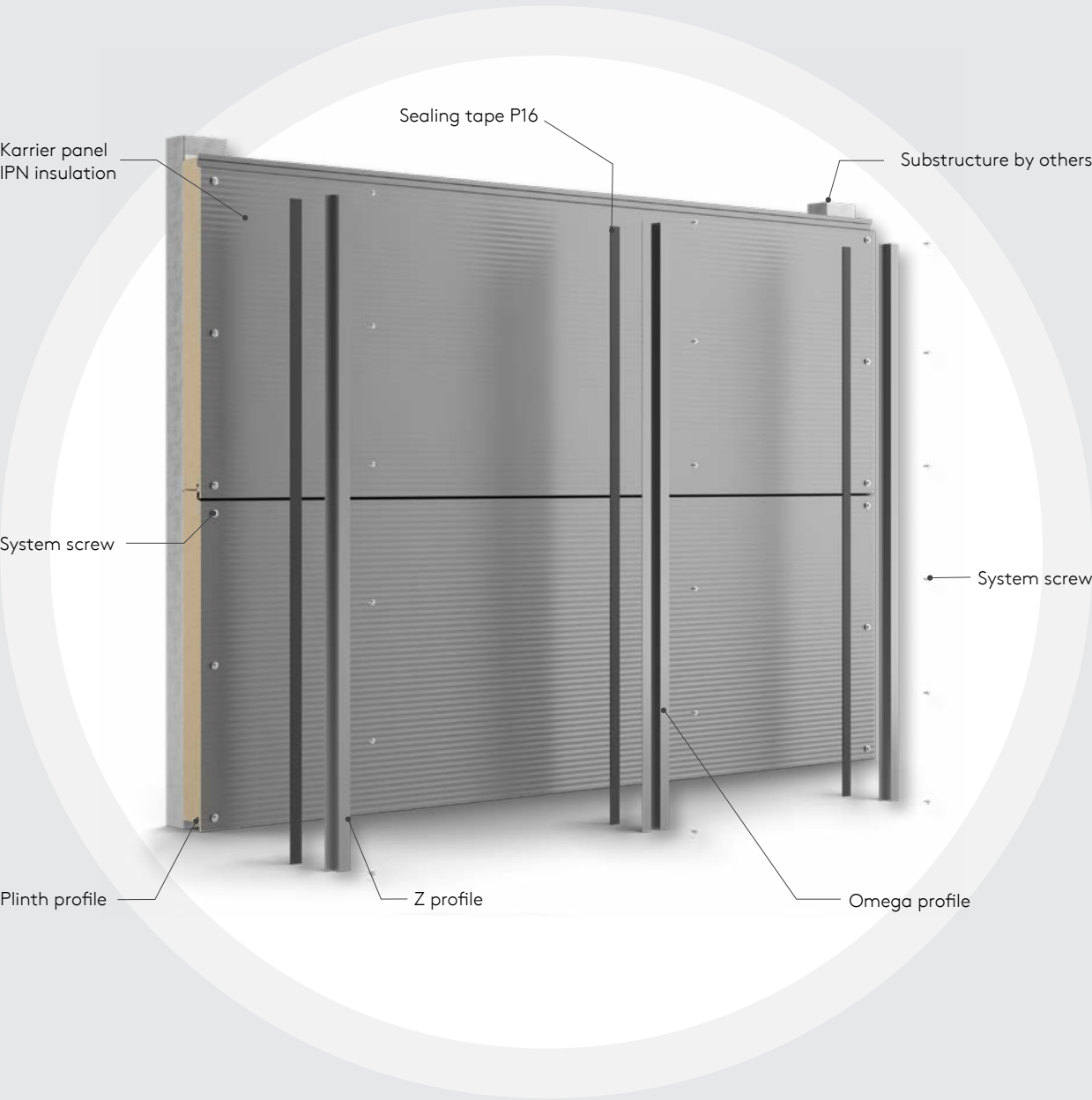
3. Mineral Wool

Karrier KT K-Roc® is our advanced facade system with mineral wool insulation core. Recommended for applications where excellent reaction to fire and fire performance characteristics as well as superior acoustic isolation is required.



Karrier: System composition

Karrier is a modern architectural facade system based on a sandwich panel specially designed and certified to transfer loads from the external facade cladding. A wide range of external claddings from leading manufacturers can be attached to Carrier panels.



Karrier BK IPN - technical data:

Panel thickness (mm)	80	100	120	150	170
Panel length (mm)	550-15000	550-15000	550-15000	550-15000	550-15000
Panel width (mm)	1000	1000	1000	1000	1000
Steel thickness (mm) (external/internal)	0,60/0,40	0,60/0,40	0,60/0,40	0,60/0,40	0,60/0,40
Panel weight (kg/m²)*	11,79	12,51	13,23	14,31	15,03
Packaging - number of panels in a bundle	13	11	9	7	6
Thermal transmittance (U-value) (W/m²K) - EN 14509 compliant*	0,28	0,22	0,19	0,15	0,13
Fire safety classification - EN13501-1 compliant	B-s1, d0	B-s1, d0	B-s1, d0	B-s1, d0	B-s1, d0
Fire Resistance	Detailed information on fire resistances can be obtained from our Sales department				
Application	External walls, internal walls, ceilings				

*For panel width of 1000 mm.

Karrier BK QuadCore® - technical data:

Panel thickness (mm)	80	100	120	150	170
Panel length (mm)	550-15000	550-15000	550-15000	550-15000	550-15000
Panel width (mm)	1000	1000	1000	1000	1000
Steel thickness (mm) (external/internal)	0,60/0,40	0,60/0,40	0,60/0,40	0,60/0,40	0,60/0,40
Panel weight (kg/m²) *	11,94	12,70	13,46	14,60	15,36
Packaging - number of panels in a bundle	13	11	9	7	6
Thermal transmittance (U-value) (W/m²K) - EN 14509 compliant*	0,25	0,20	0,16	0,13	0,11
Fire safety classification - EN13501-1 compliant	B-s1,d0	B-s1,d0	B-s1,d0	B-s1,d0	B-s1,d0
Fire Resistance	Detailed information on fire resistances can be obtained from our Sales department				
Application	External walls, internal walls, ceilings				

*For panel width of 1000 mm.

Karrier KL IPN - technical data:

Panel thickness (mm)	100	120	150	170	200
Panel length (mm)	550-15000	550-15000	550-15000	550-15000	550-15000
Panel width (mm)	1000	1000	1000	1000	1000
Steel thickness (mm) (external/internal)	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50
Panel weight (kg/m²) *	12,20	12,92	14,00	14,72	15,80
Packaging - number of panels in a bundle	11	9	7	6	5
Thermal transmittance (U-value) (W/m²K) - EN 14509 compliant*	0,23	0,19	0,15	0,13	0,11
Fire safety classification - EN13501-1 compliant	B-s1, d0	B-s1, d0	B-s1, d0	B-s1, d0	B-s1, d0
Fire Resistance	Detailed information on fire resistances can be obtained from our Sales department				
Application	External walls, internal walls, ceilings				

*For panel width of 1000 mm.

Karrier KL QuadCore® - technical data:

Panel thickness (mm)	100	120	150	170	200
Panel length (mm)	550-15000	550-15000	550-15000	550-15000	550-15000
Panel width (mm)	1000	1000	1000	1000	1000
Steel thickness (mm) (external/internal)	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50
Panel weight (kg/m²) *	12,40	13,16	14,30	15,06	16,20
Packaging - number of panels in a bundle	11	9	7	6	5
Thermal transmittance (U-value) (W/m²K) - EN 14509 compliant*	0,19	0,16	0,13	0,11	0,10
Fire safety classification - EN13501-1 compliant	B-s1, d0	B-s1, d0	B-s1, d0	B-s1, d0	B-s1, d0
Fire Resistance	Detailed information on fire resistances can be obtained from our Sales department				
Application	External walls, internal walls, ceilings				

*For panel width of 1000 mm.

Karrier KT K-Roc® - technical data:

Panel thickness (mm)	80	100	120	150	175	200	220	240
Panel length (mm) *	550 - 14300	550 - 14300	550 - 14300	550 - 14300	550 - 14300	550 - 14300	550 - 14300	550 - 14300
Panel width (mm)	1000	1000	1000	1000	1000	1000	1000	1000
Steel thickness (mm) (external/internal)	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50	0,60/0,50
Panel weight (kg/m²) **	15,95	17,65	19,35	21,90	24,03	26,15	27,85	29,55
Packaging - number of panels in a bundle	14	11	9	7	6	5	5	5
Thermal transmittance (U-value) (W/m²K) - EN 14509 compliant**	0,48	0,39	0,33	0,26	0,22	0,20	0,18	0,17
Fire safety classification - EN13501-1 compliant	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0
Fire Resistance	Detailed information on fire resistances can be obtained from our Sales department							
Sound insulation Rw (dB)	30 (-2; -4)	30 (-2; -4)	31 (-3; -5)	30 (-2; -4)	30 (-2; -4)	30 (-2; -3)	N/A	N/A
Application	External walls, internal walls, ceilings							

*Maximum recommended length is 9000 mm.
**For panel width of 1000 mm.



Queen's University
Belfast, Ireland
Product
Karrier + Corten steel cassettes

The benefits of Dri-Design + Karrier system vs Multicomponent ventilated facade

up to 2.0 times

shorter installation time
with measurable savings
in overall project cost



zero

sealants, gaskets or butyl
tape in cassette joints,
means no dirty streaks and
maintenance cost reduced
to the absolute minimum

up to 2.0 times

less truck deliveries to site

vs



up to 0.25 m

thinner wall structure
leading to savings in overall
footprint and associated
development costs

28 kg

saving in weight per 1 m²
for easier & safer handling

100%

recyclable + can be reused

up to 2.5 times

lighter facade with savings
in structure & foundation

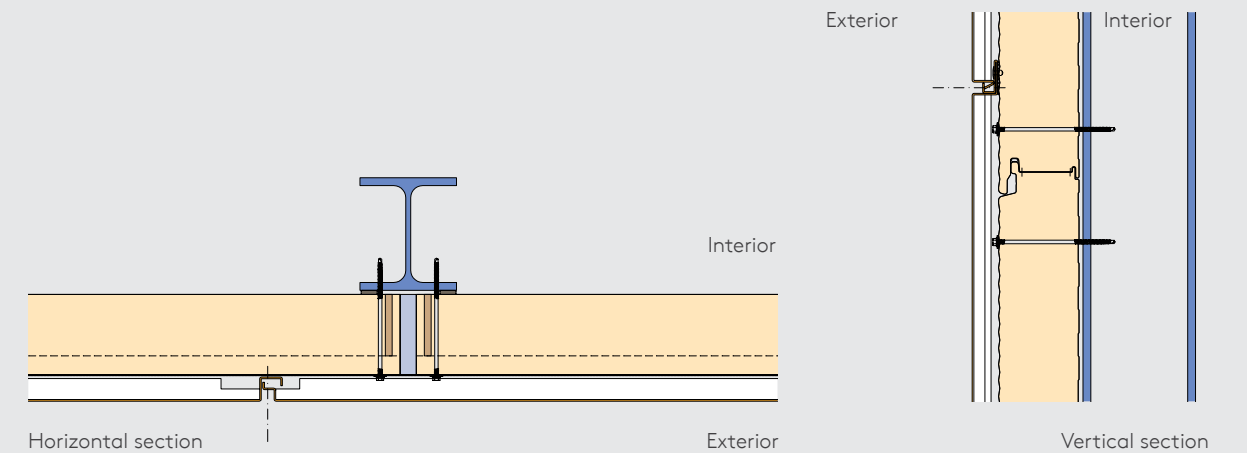
Dri-Design installs twice as fast as comparable systems with minimum components. When installed to Karrier panel leads to more lifetime energy savings plus a thinner and lighter facade solution with multiple benefits in terms of efficiency and sustainability.

* These are estimates for facade using traditional built-up system with mineral fibre and ACM, compared with a 100 mm Karrier panel and Dri-Design cassette. Accurate calculations could be achieved with more detailed project information.

Installation guidance Integrated Façade System - Dri-Design cassette

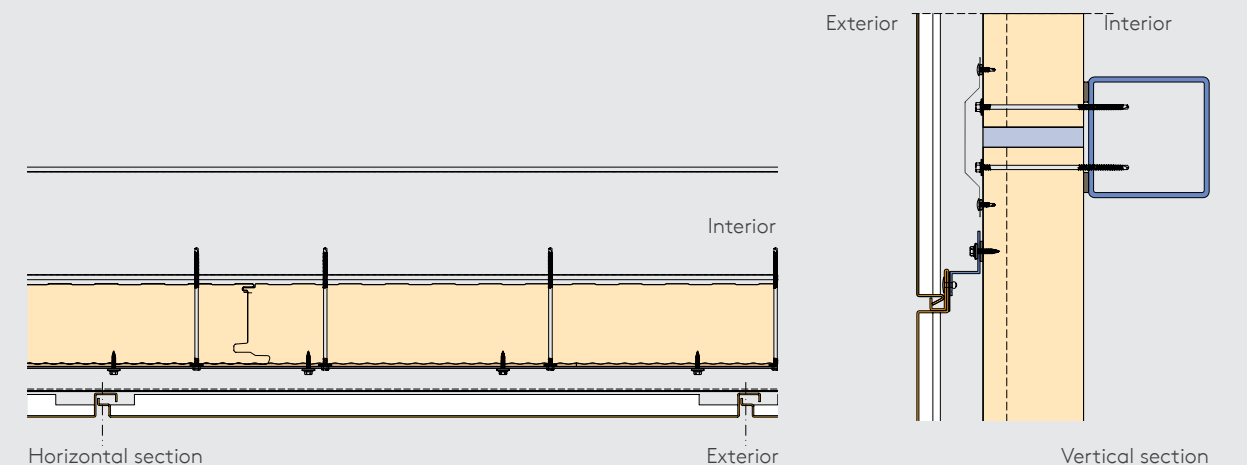
Option One

Direct Fix
(Dri-Design cassette + Karrier panel)



Option Two

Dri-Design installed to Karrier panels using aluminium subconstruction
(Dri-Design cassette + Alu subconstruction + Karrier panel)



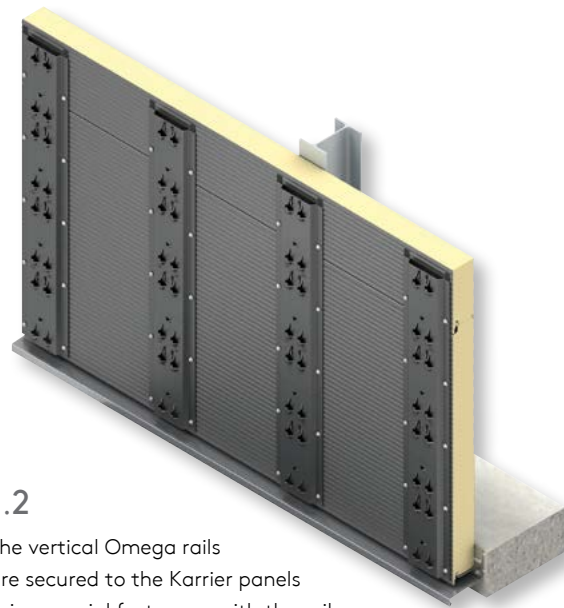
All technical information is subject to alterations.

Installation guidance Integrated Façade System - Tile



1.1

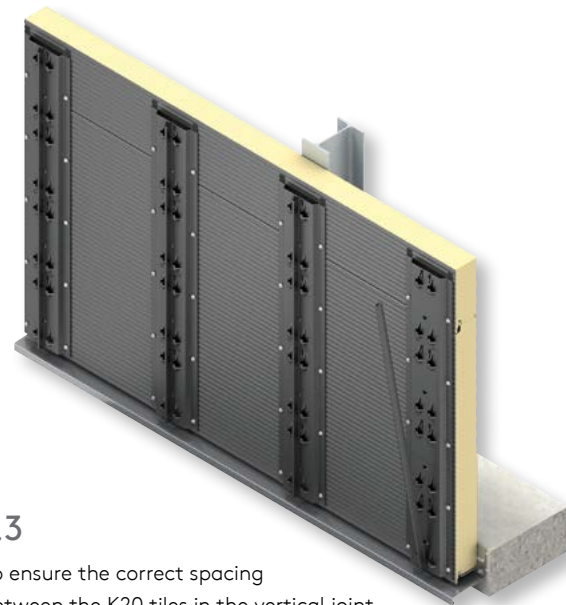
The tile system supposes a horizontally aligned installation of Karrier panels as a basis substructure.



1.2

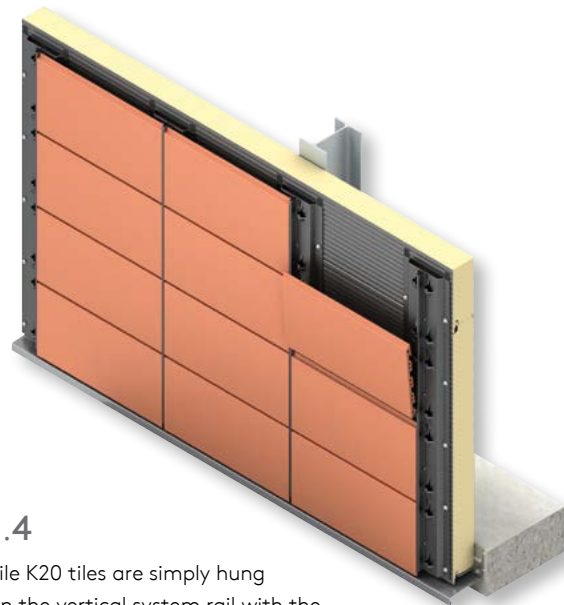
The vertical Omega rails are secured to the Karrier panels using special fasteners, with the rails isolated from the panels with 2 No. runs of isolation tape.

The centre distance between the Omega rails is set by the chosen tile module, minus 8 mm.



1.3

To ensure the correct spacing between the K20 tiles in the vertical joint, single spacers (joint spacer) or a continuous joint profile (joint profile) can be applied.

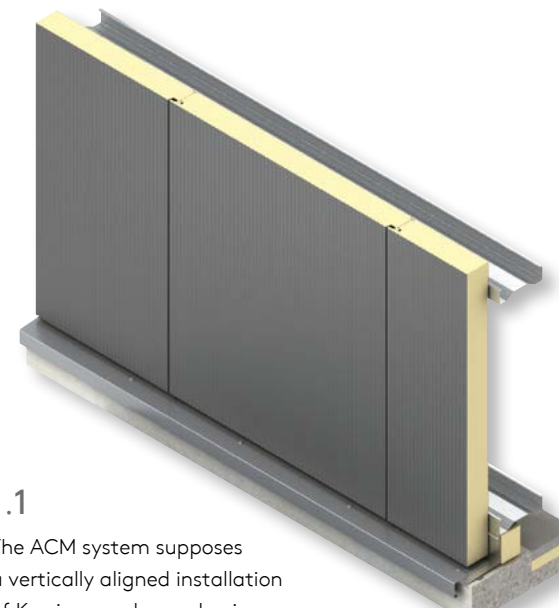


1.4

Tile K20 tiles are simply hung on the vertical system rail with the holding grooves on the reverse side.

For mounting the tiles, no additional tools are required. The compression spring and removal protection integrated in the system rail prevents clattering and constraining forces in the case of alternating wind loads, and also the forcible removal of tiles.

Installation guidance Integrated Façade System - ACM



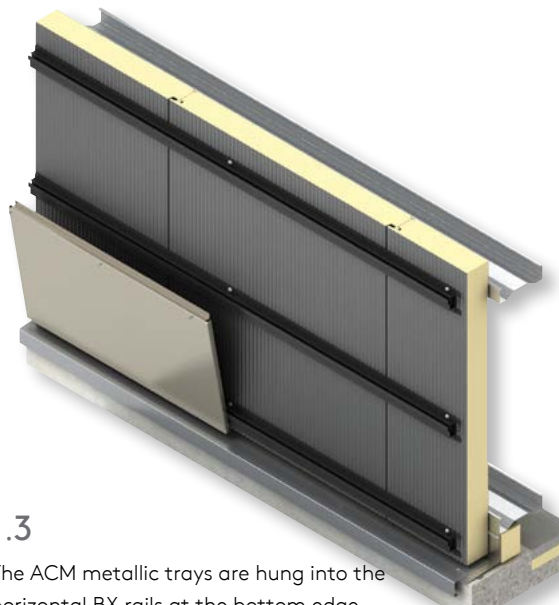
1.1

The ACM system supposes a vertically aligned installation of Karrier panels as a basis substructure.



1.2

BX rails are secured horizontally to the Karrier panels using special fasteners, with the rails isolated from the panels with 2 No. runs of isolation tape.



1.3

The ACM metallic trays are hung into the horizontal BX rails at the bottom edge and fastened in the horizontal joint at the top edge.



1.4

The vertical and horizontal gaps between single trays measures 8 mm.

Installation guidance

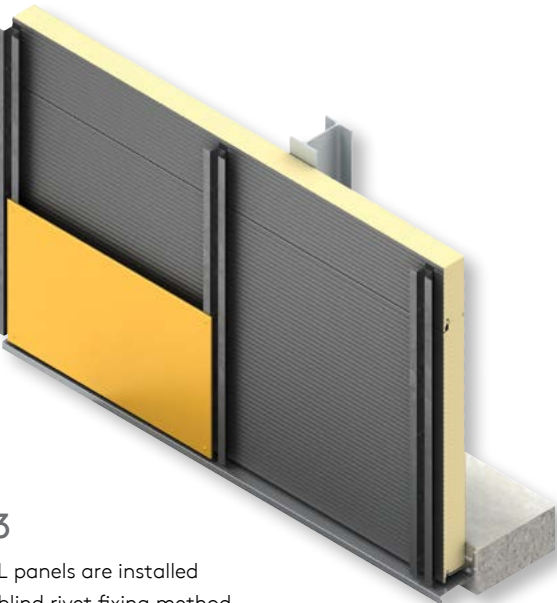
Integrated Façade System - HPL



1.1
The HPL system supposes a horizontally aligned installation of Karrier panels as a basis substructure.



1.2
Vertical KSAL30 Omega (or Z) sections are secured in turn to the Karrier panels using special fasteners. The sections are bedded on PVC sealing tapes. centres between the aluminium sections are given by the HPL module sizes and/or by structural requirements.



1.3
HPL panels are installed by blind rivet fixing method or glued to the rails.



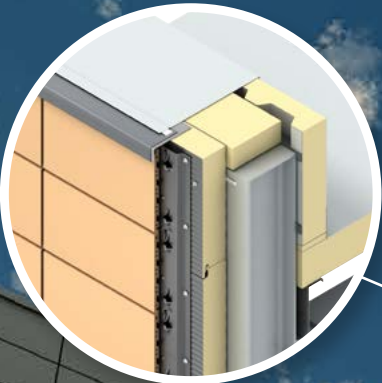
1.4
The gap between single HPL panels measures 10 mm.

Galena shopping center
Jaworzno, Poland
Product
Karrier + HPL



Karrier: Architectural details

Parapet Details



Window Details



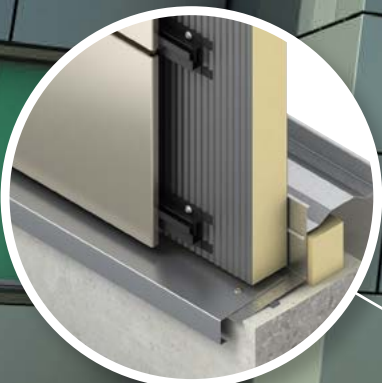
Façade Options



Corner Details



Base Details



We offer a wide range of architectural details

For more information please contact our Technical department

Tile system overview

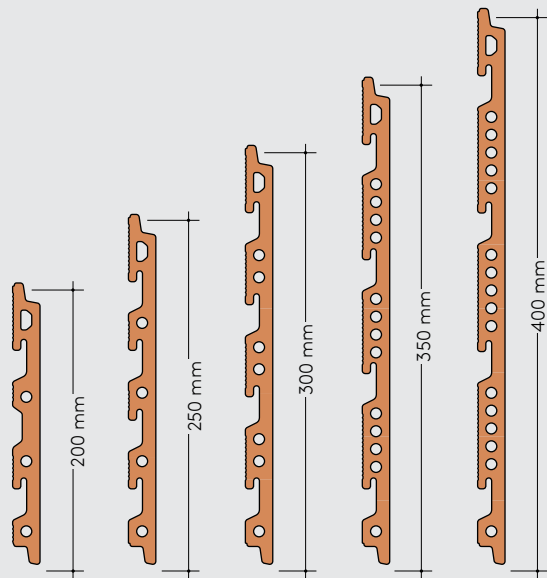
The K20 Ceramic Tile is an extruded ceramic panel available in a wide range of colours and glazes. K20 tiles are secured to the façade using vertical, Omega profile rails. The Omega rails are attached to the face of the Carrier panel using special fasteners

Ceramic Tile Modules

K20 tiles are available in five 'face' sizes:

- 200 mm
- 250 mm
- 300 mm
- 350 mm
- 400 mm

Tiles are available in lengths of 400 mm to 1200 mm, in 1 mm increments. Tile modules are also detailed as 'grid' size. The grid size is the actual physical size of the tile including the flanges for the horizontal joint. Grid size = tile face size + 5 mm.



Omega Rail Types

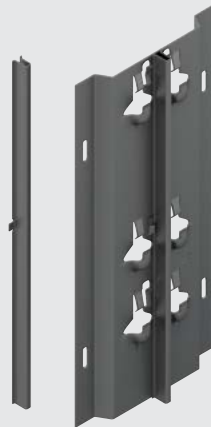
Depending on the area of the façade, there are specific Omega rails for secure application of the K20 tiles. Note: Images shown here are top section of rail, not full length.



Aluminium Omega Rail
Black coated aluminium Omega rail. Specific rail required for each tile face size, see opposite.



Aluminium Corner Omega Rail
Black coated aluminium Omega rail. Used at the corner of an elevation to support tiles, either mitre cut or uncut, with a corner profile.



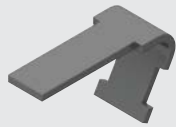
Aluminium Joint Profile
Black coated.



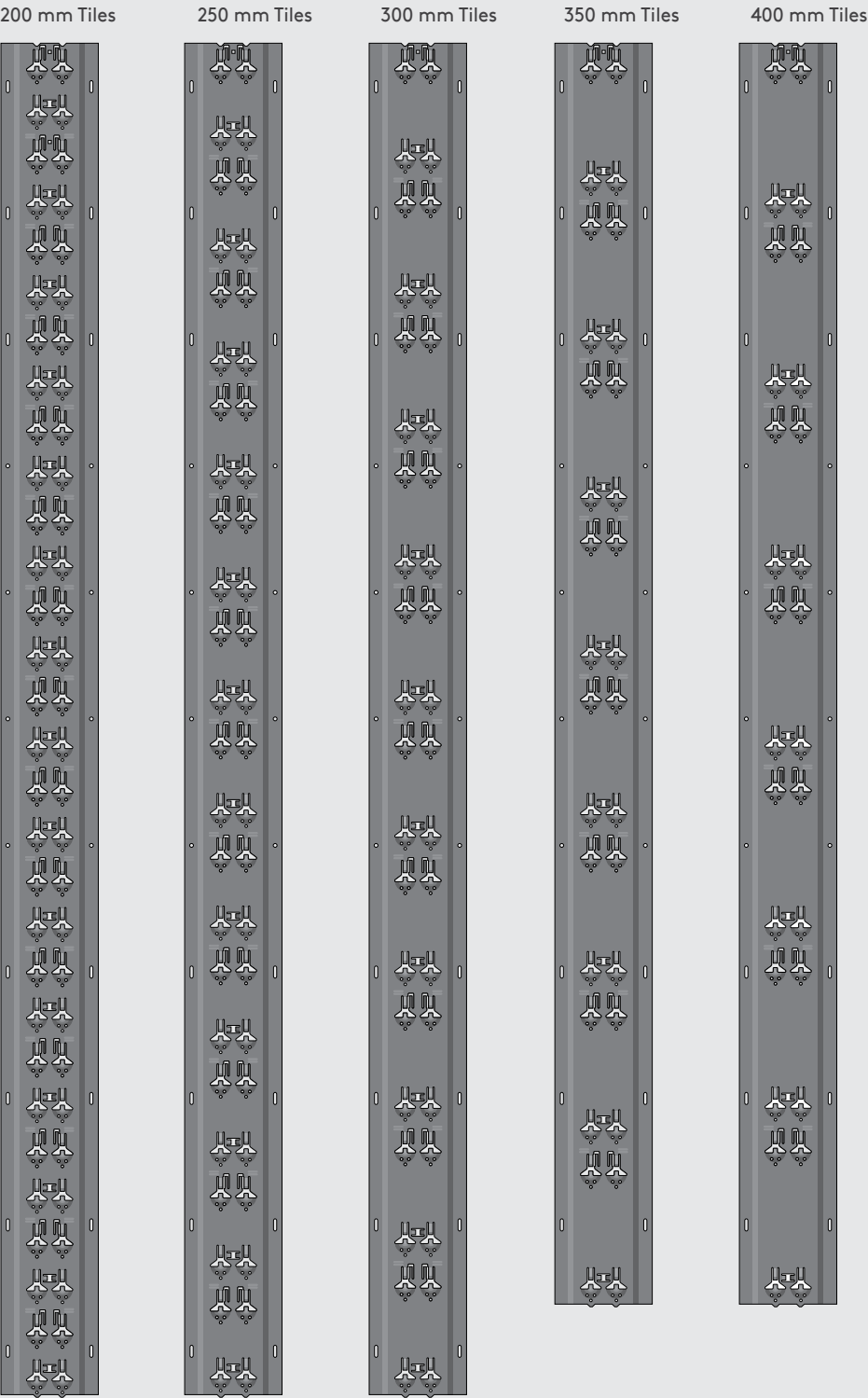
Aluminium Reveal Omega Rail
Black coated, used to support tiles around a window or door reveal.

Joint Spacer

Black coated, used to ensure correct spacing of the vertical joint if a Joint Profile is not used.

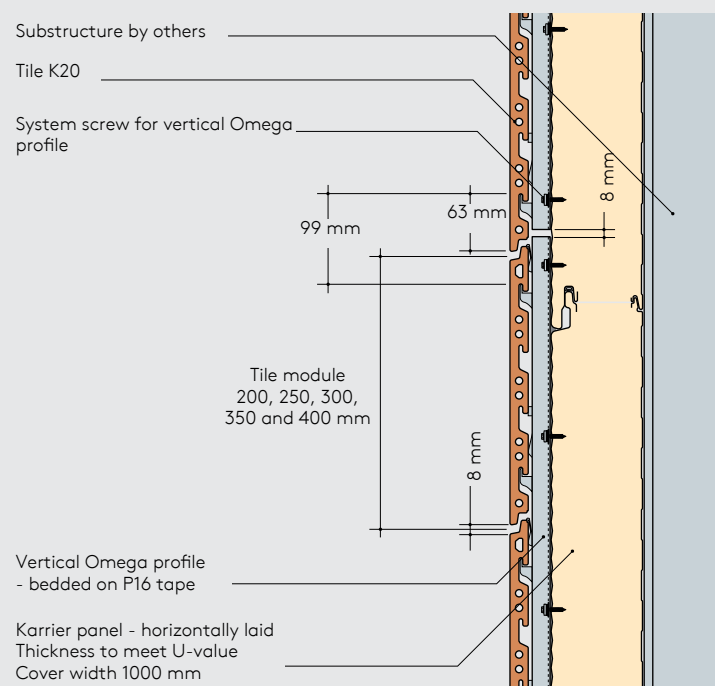
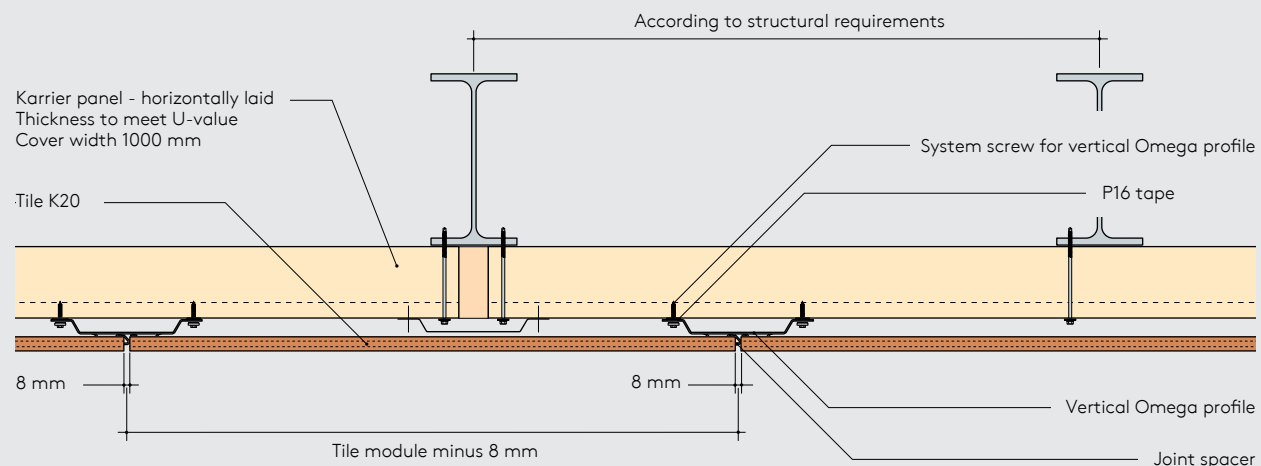


To accommodate the five different tile 'face' sizes, five separate rail lengths are required for the specific spacing of the hooks on the rear of the tiles.

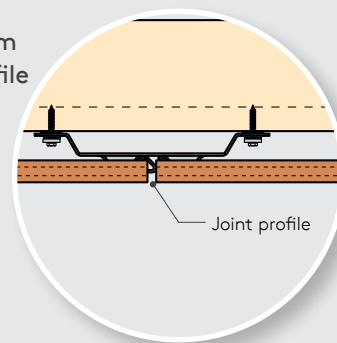


System Layout

Horizontal application



Aluminium Joint Profile Option

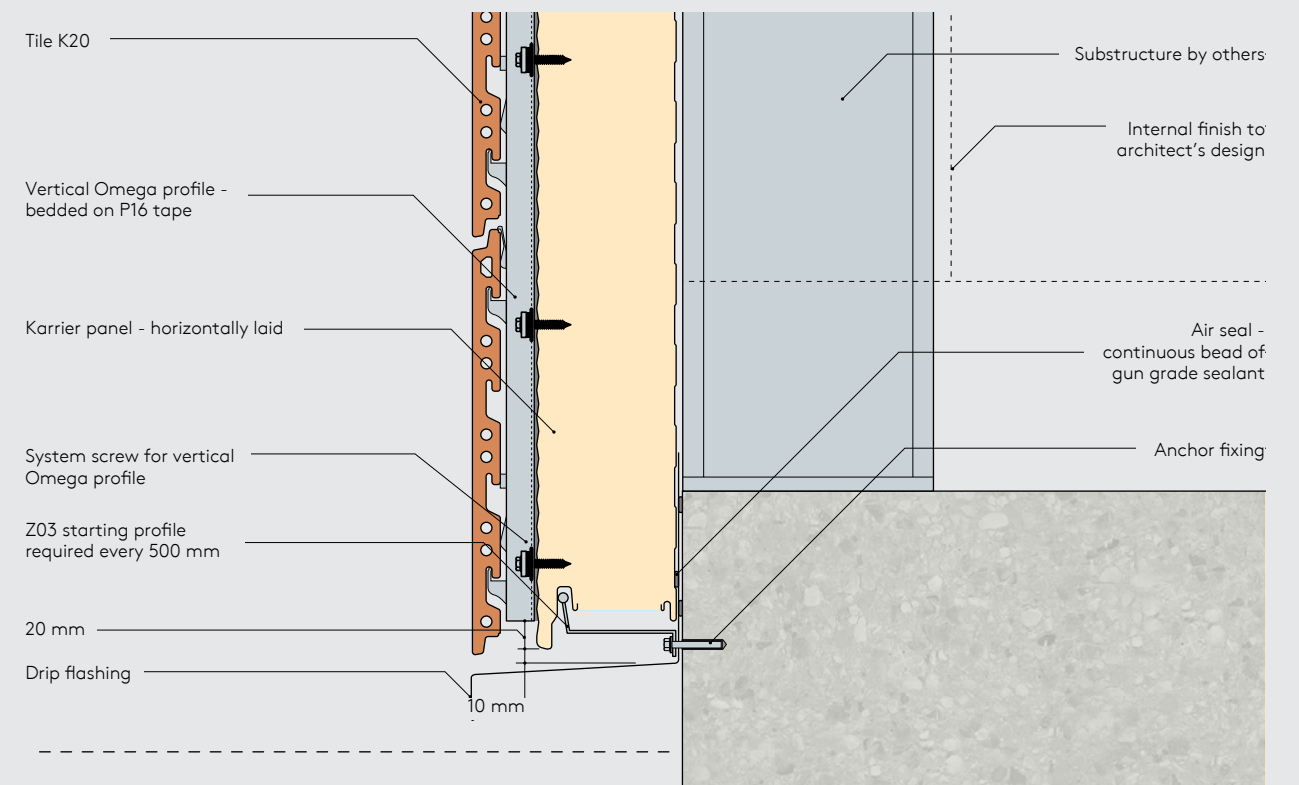
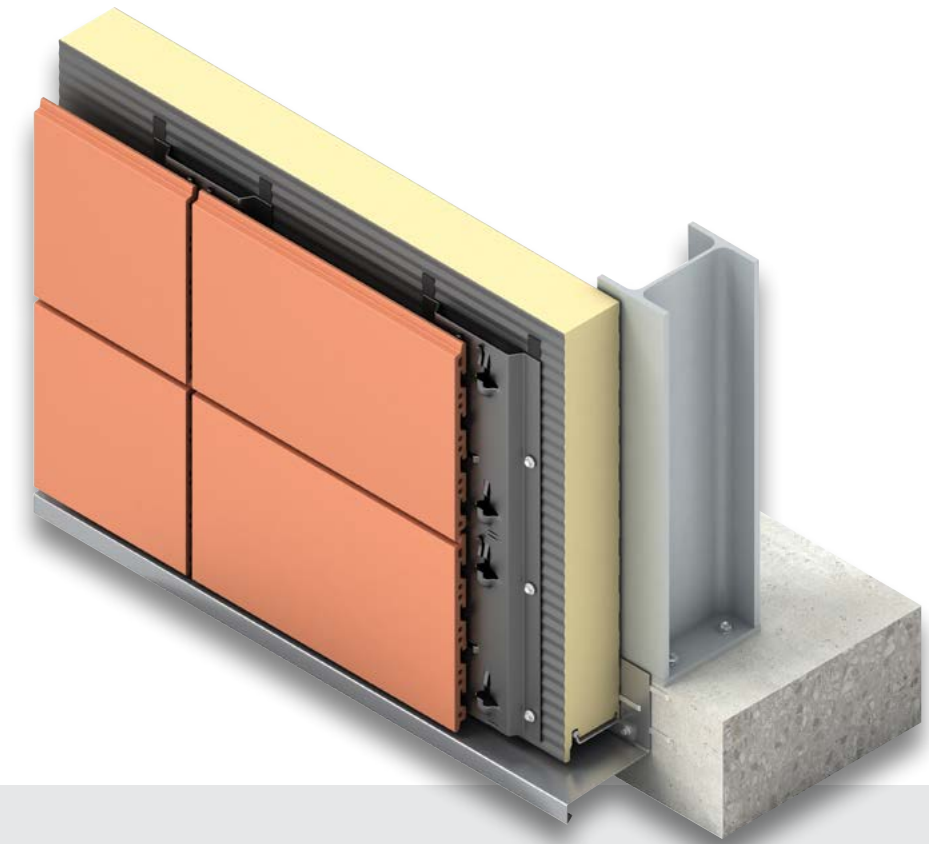


Due to additional load from
façade, panels must be fixed with
a minimum of 2 No. fasteners per
panel, per rail subject to wind loads.

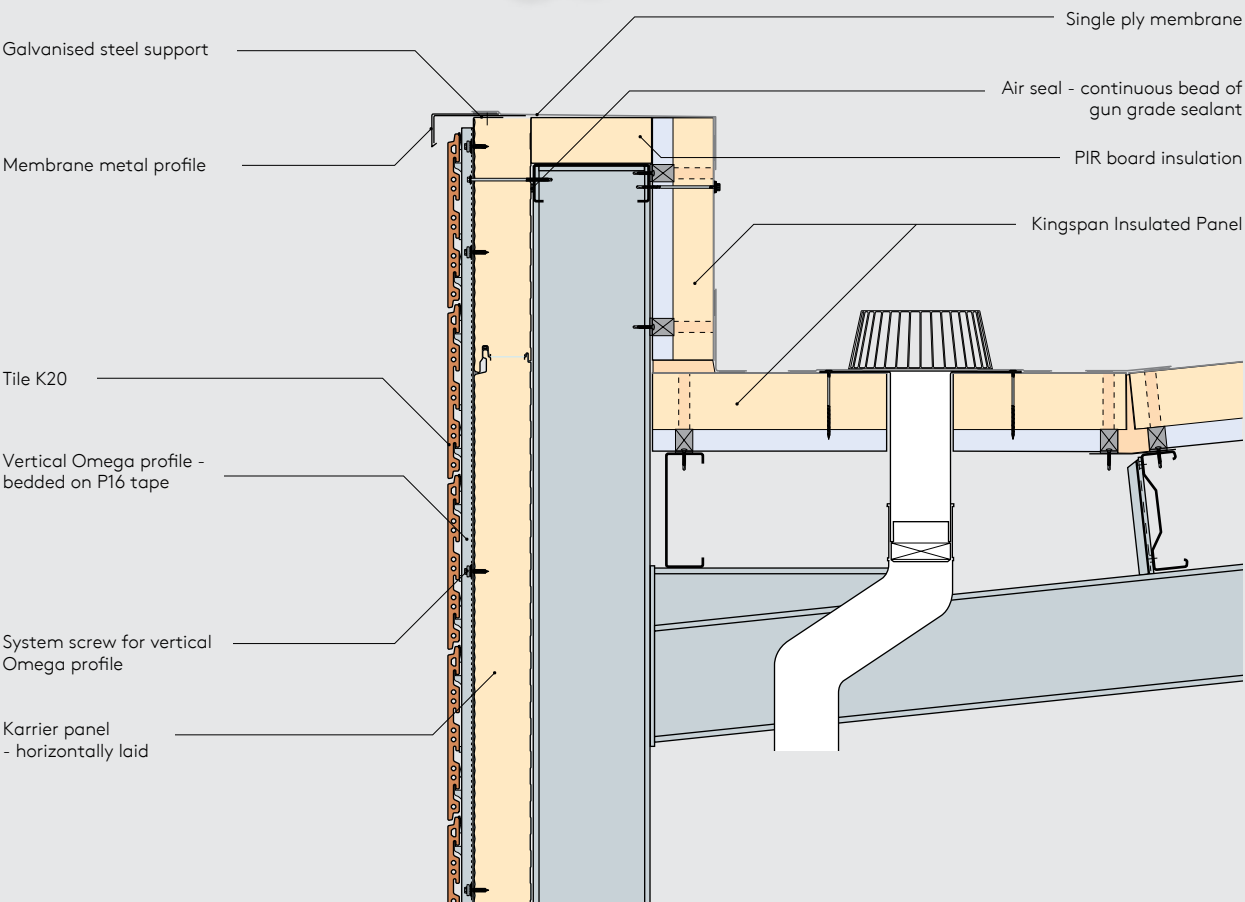
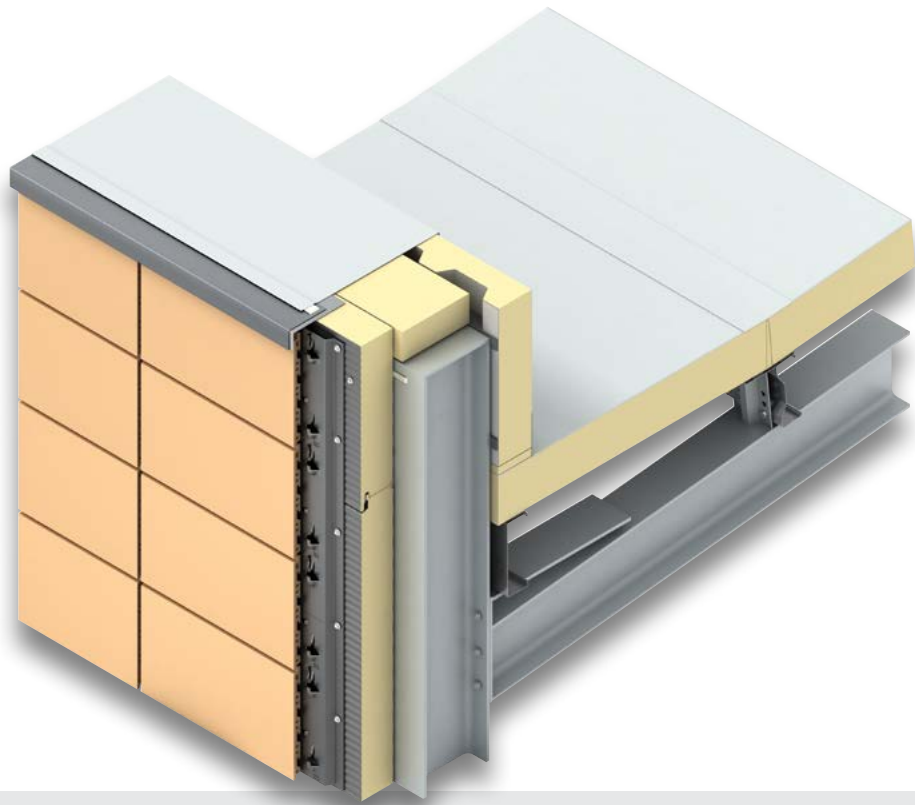
System screw to all holes and positioned centrally in all of the slots, in the vertical Omega profile.

Drip Detail

Horizontal application

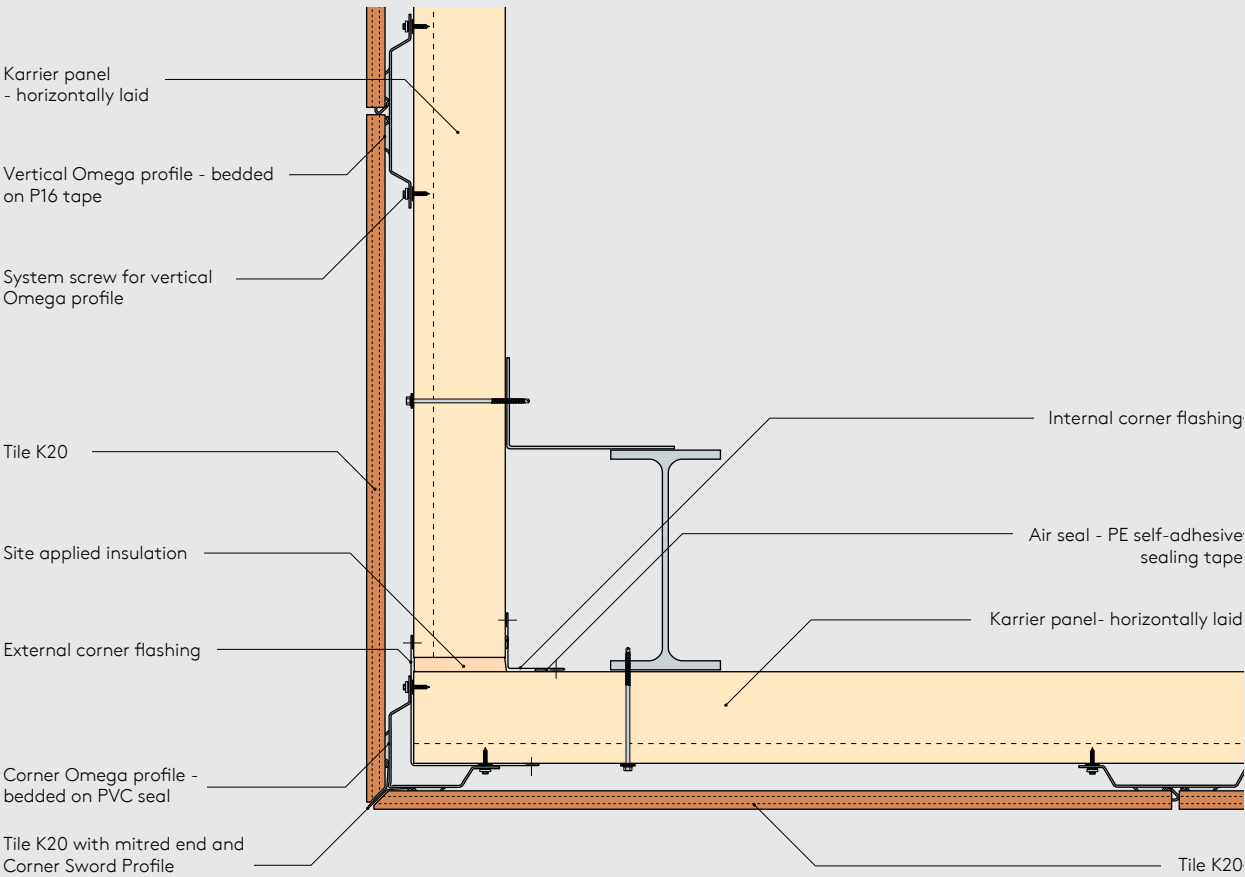
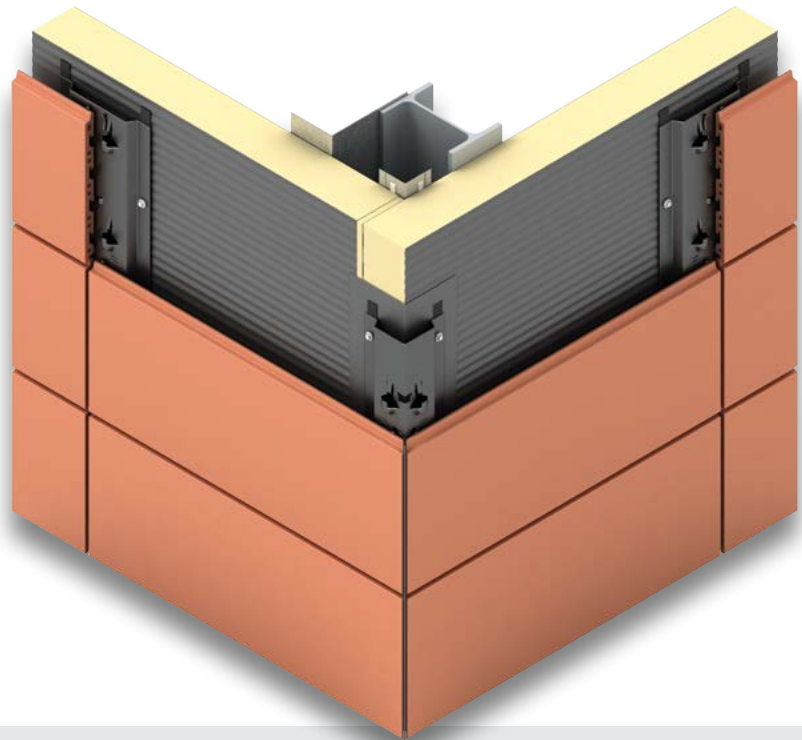


Parapet Detail
Horizontal application



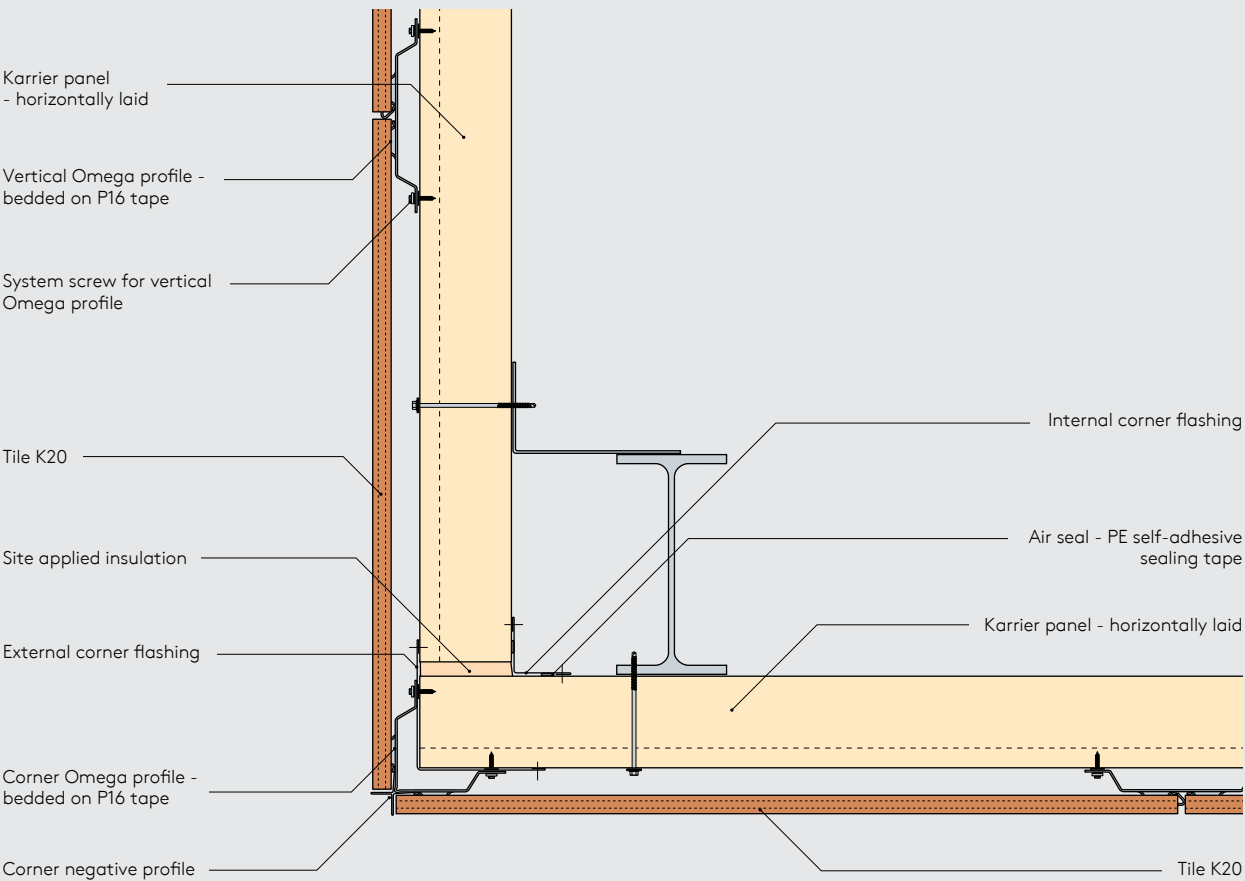
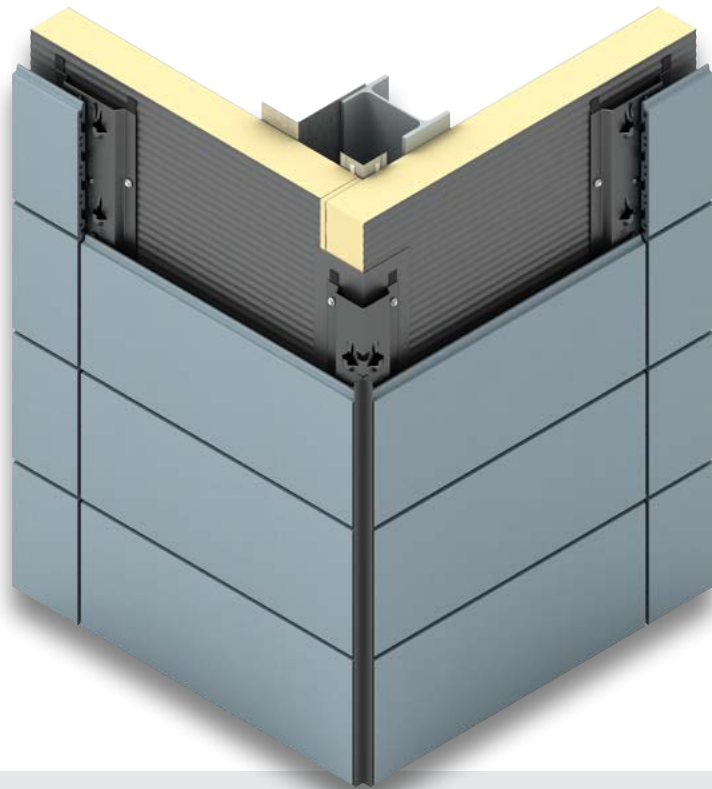
All technical information is subject to alterations. Errors and omissions excepted.

Corner - Mitred Cut / Sword Detail
Horizontal application



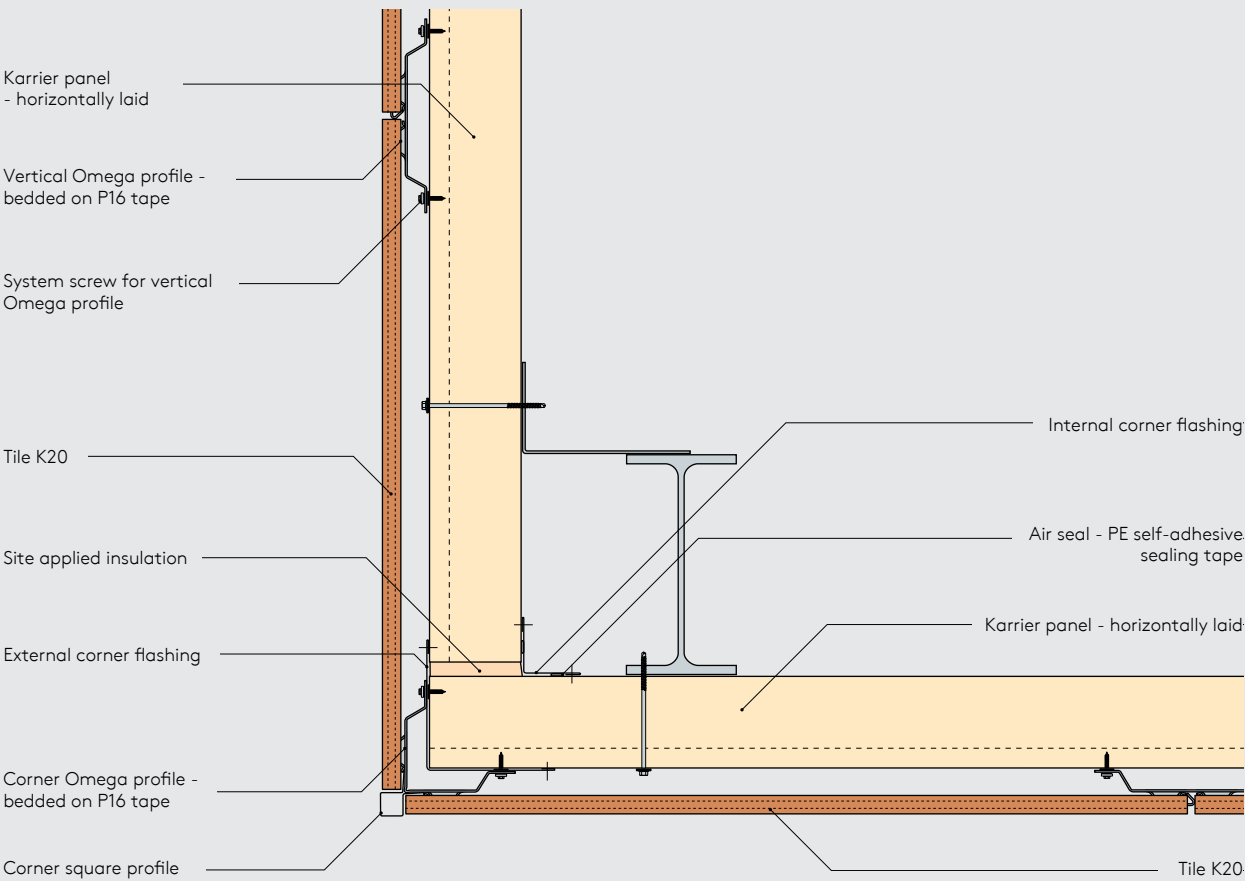
All technical information is subject to alterations. Errors and omissions excepted.

Corner - Negative Detail
Horizontal application



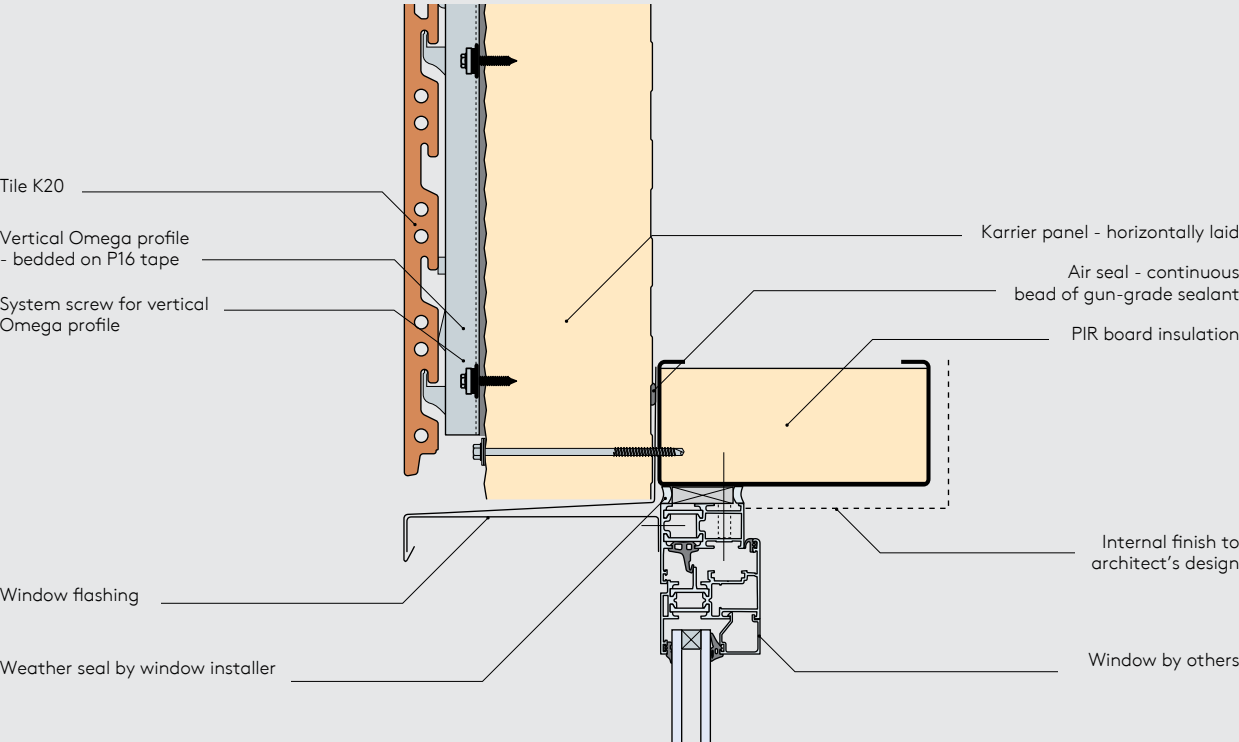
All technical information is subject to alterations. Errors and omissions excepted.

Corner - Square Detail
Horizontal application

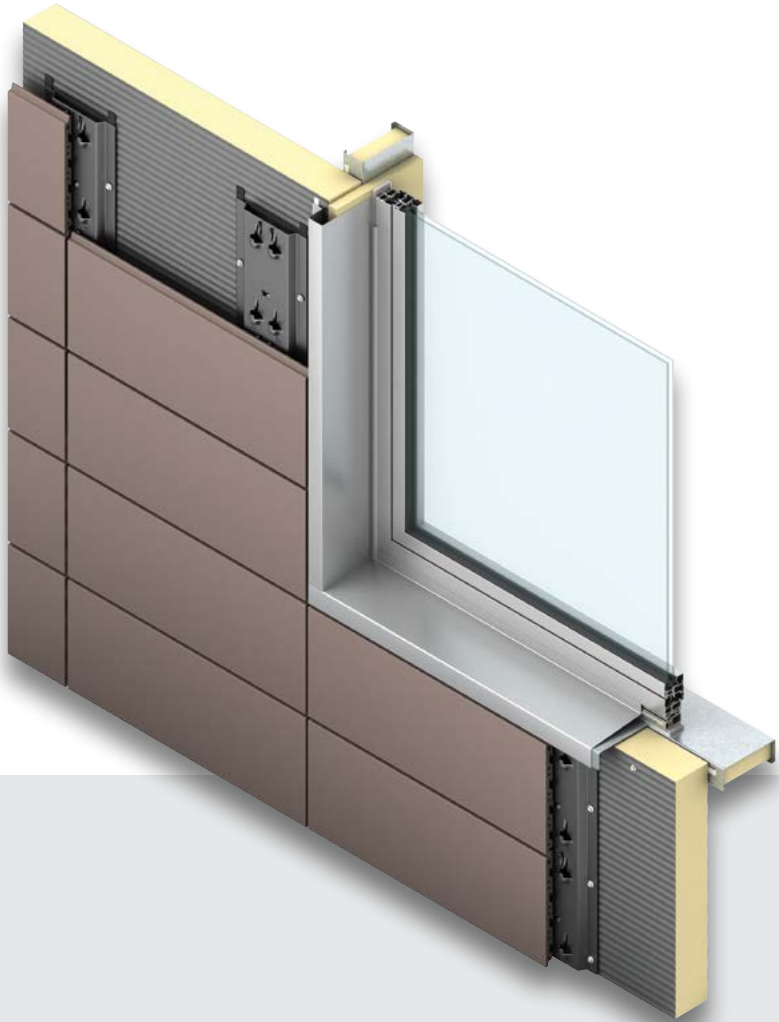


All technical information is subject to alterations. Errors and omissions excepted.

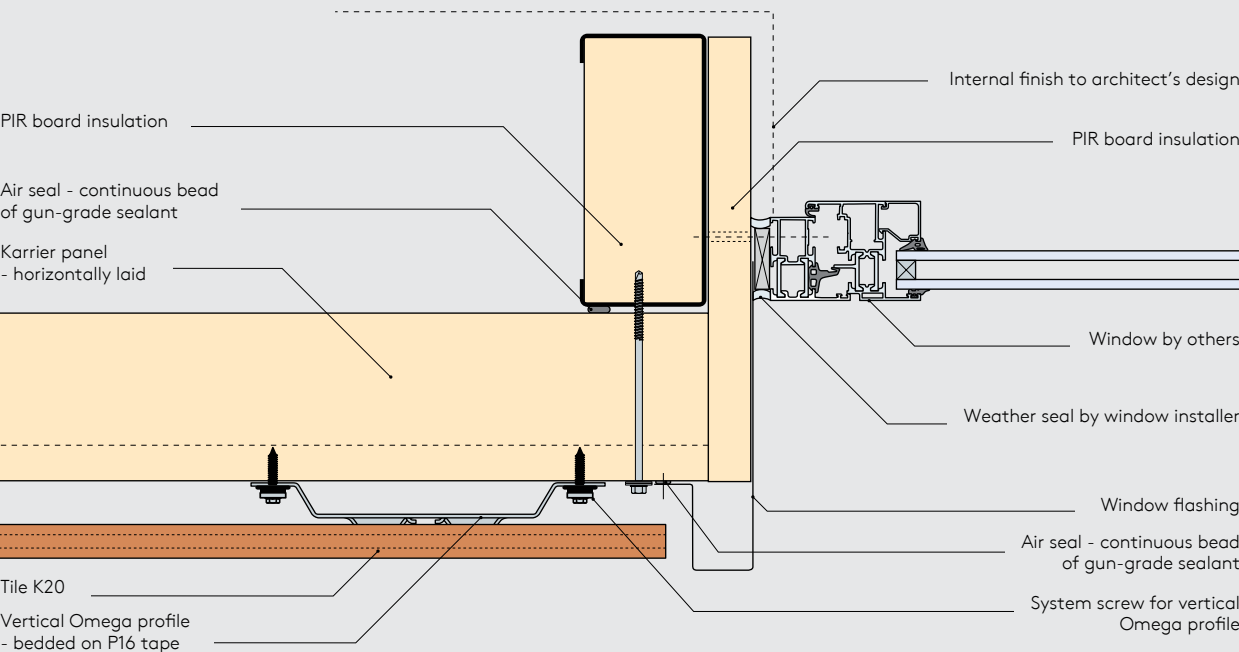
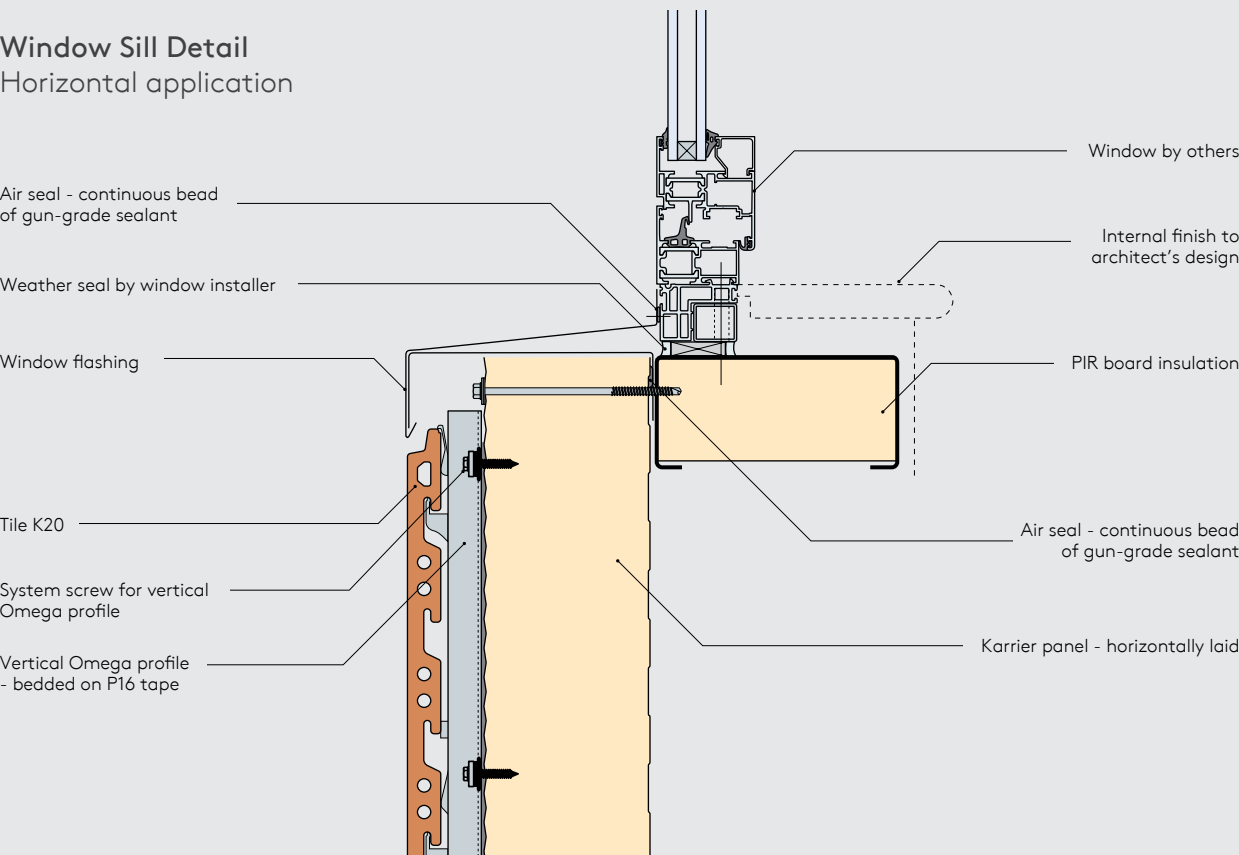
Window Head Detail
Horizontal application



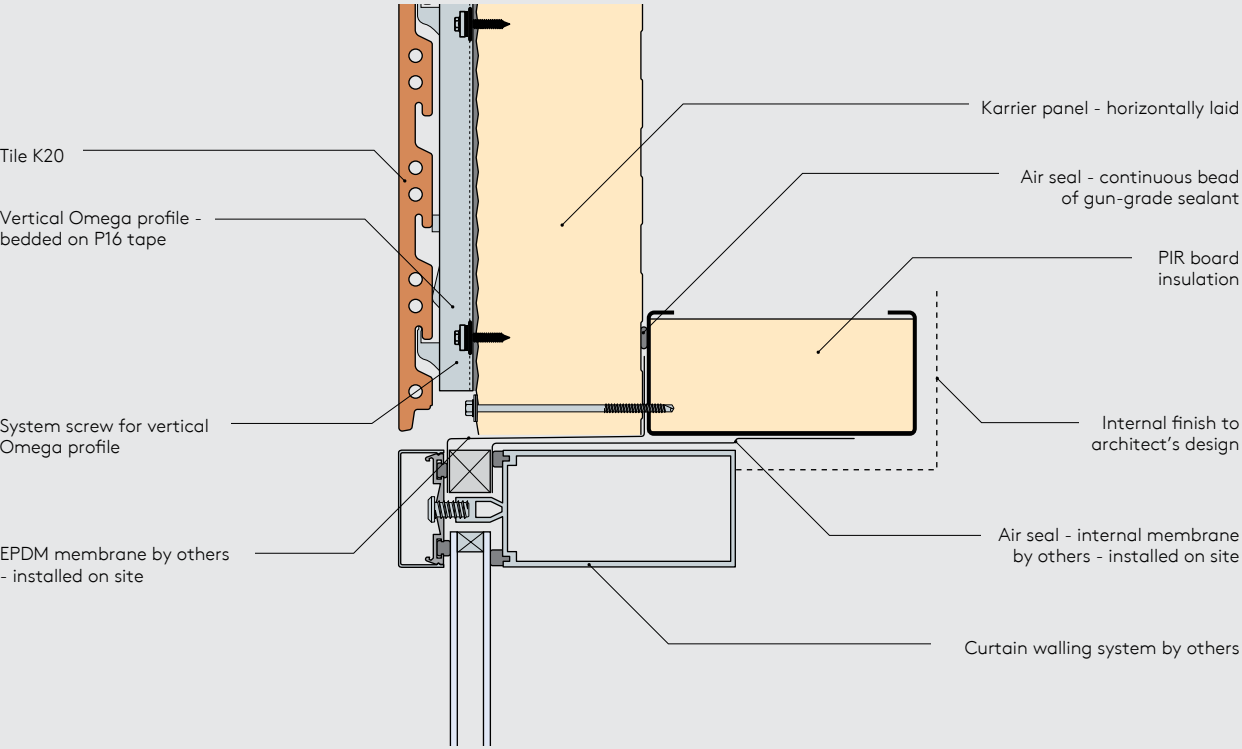
Window Jamb Detail
Horizontal application



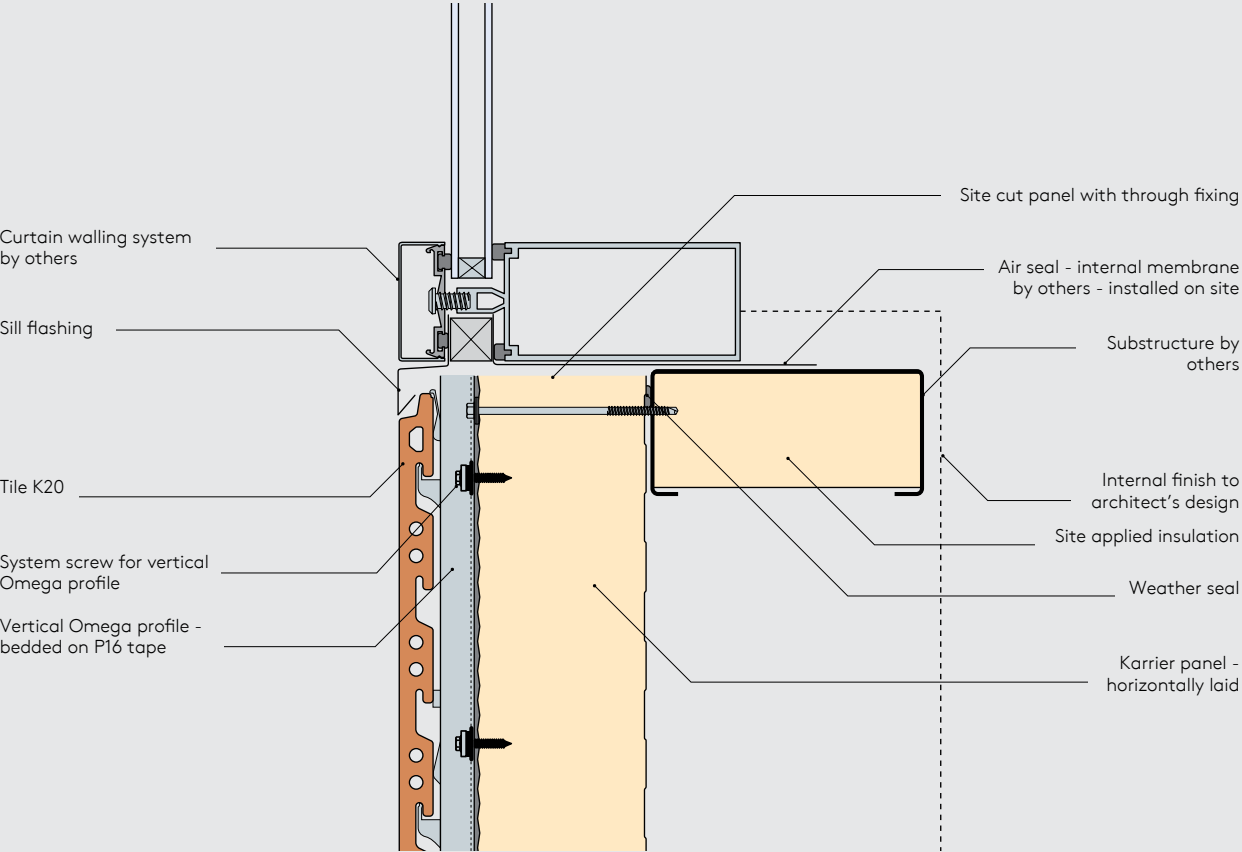
Window Sill Detail
Horizontal application



Curtain Wall Head Detail
Horizontal application

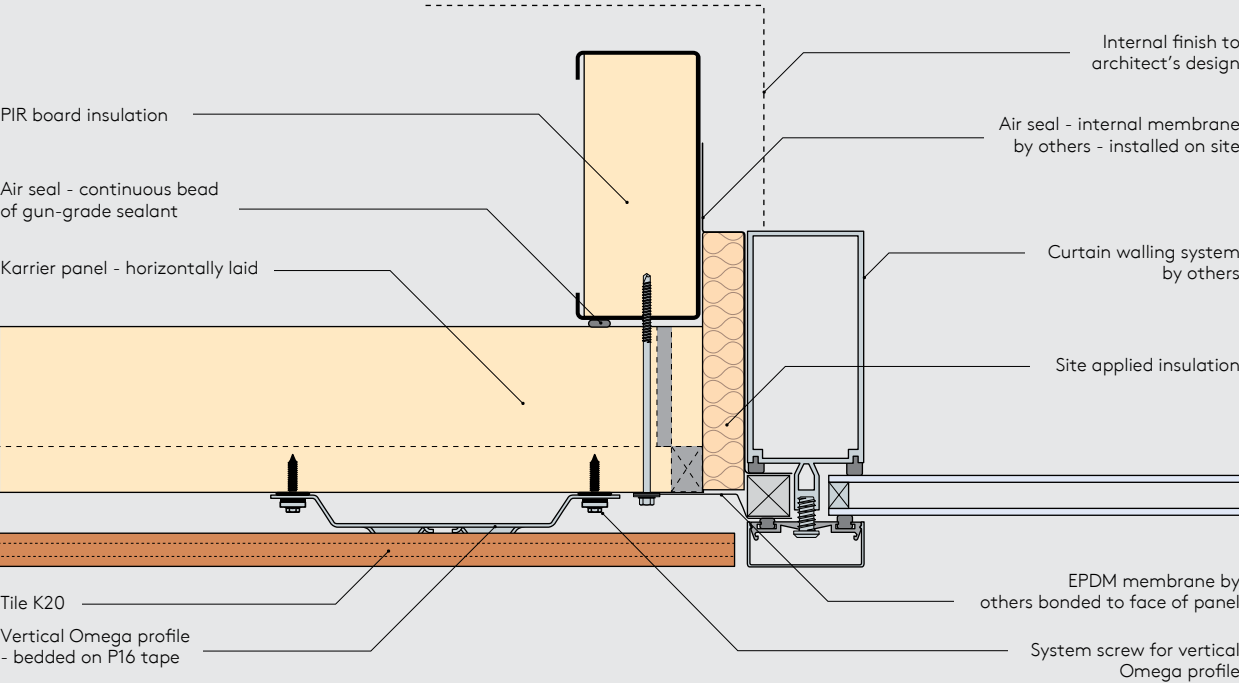
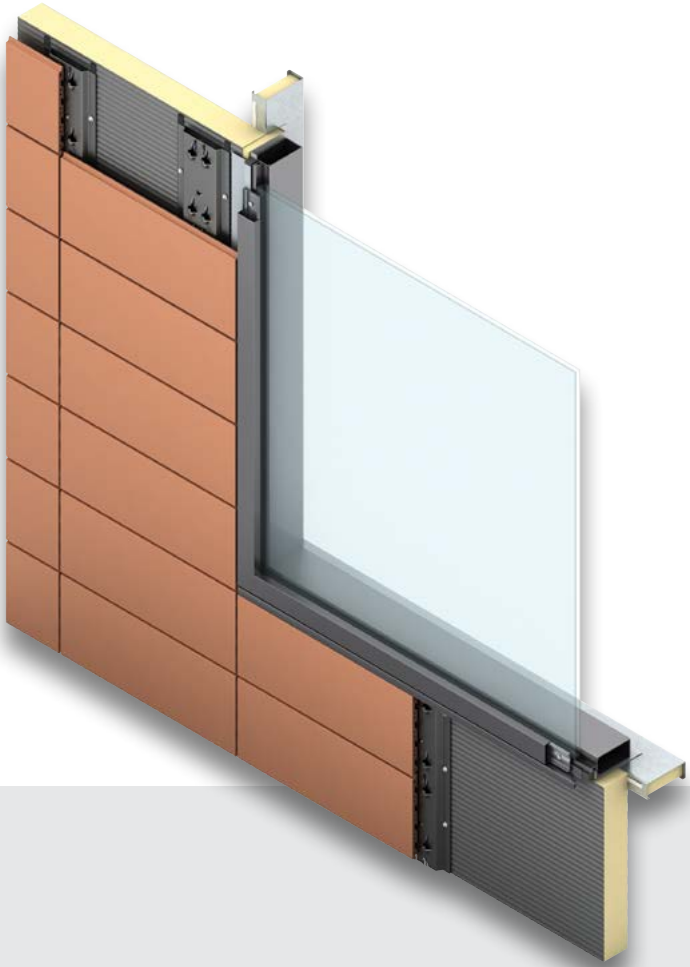


Curtain Wall Sill Detail
Horizontal application



All technical information is subject to alterations. Errors and omissions excepted.

Curtain Wall Jamb Detail
Horizontal application



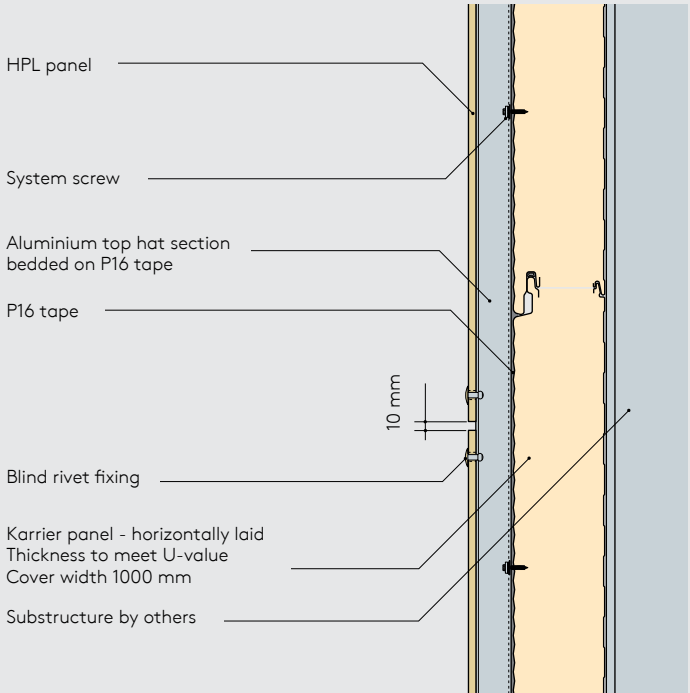
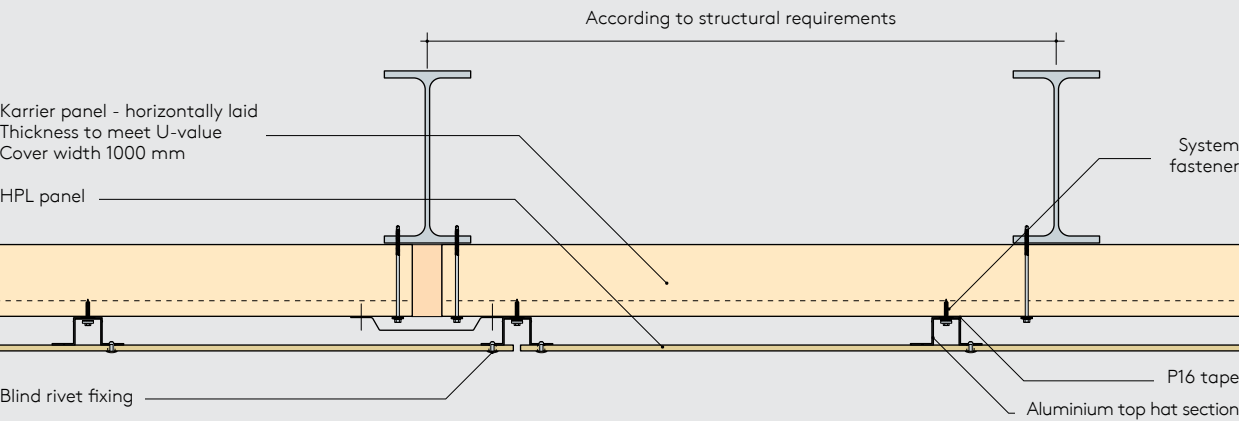
All technical information is subject to alterations. Errors and omissions excepted.

HPL system overview

HPL is a high pressure laminate flat panel – a product of thermosetting resins reinforced with wood-based fibres, manufactured under high pressure at high temperatures.

HPL panels are fixed with rivets to aluminium Omega and Z profiles which are in turn attached to the Karrier panel system.

System Layout Horizontal application



Max 600 mm ctrs for 2 fixings in one direction
Max 750 mm ctrs for 3 fixings in one direction
Note: for high wind-load buildings, ctrs may be reduced

Max 20 mm,
min 10T*

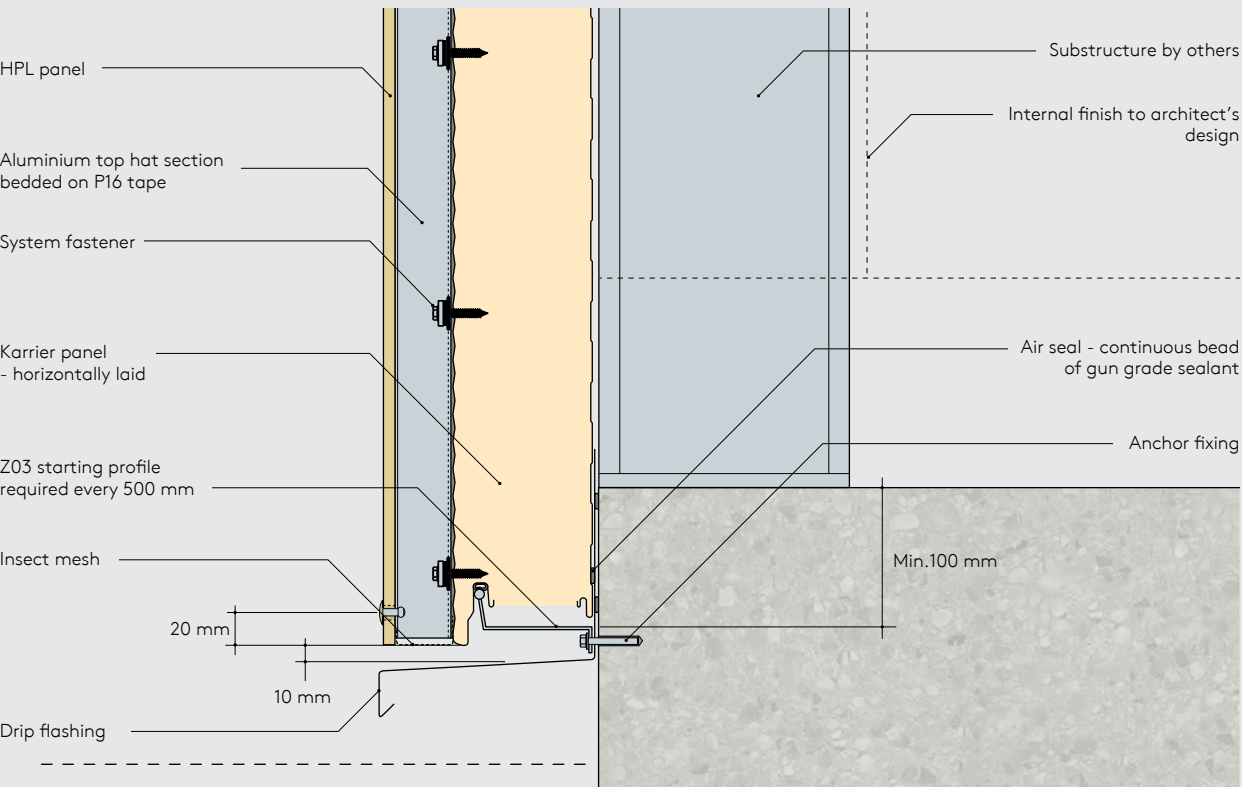
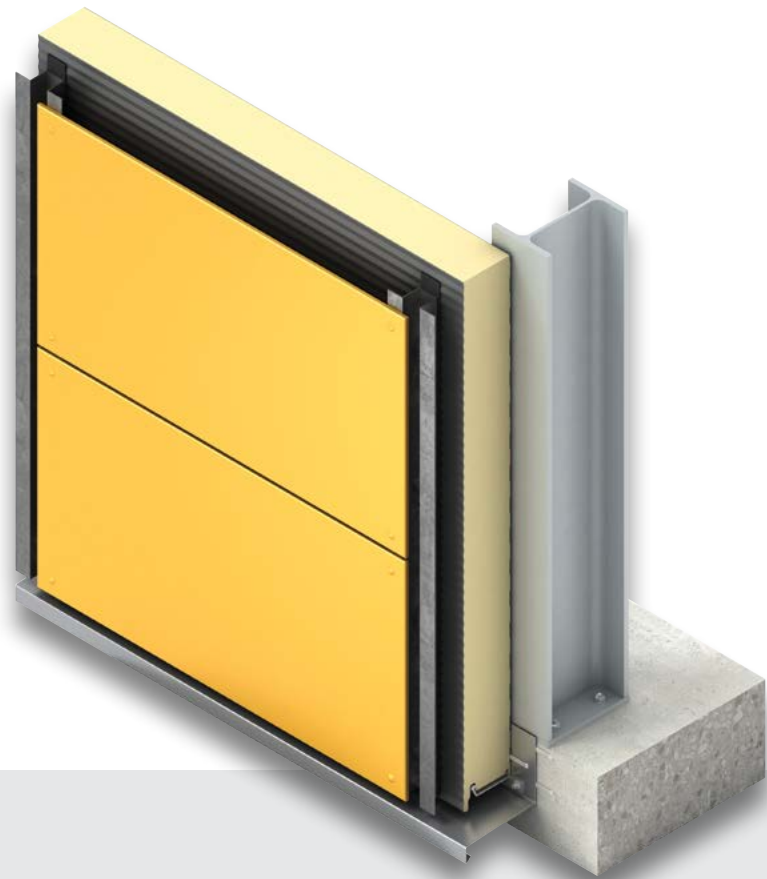
Max 600 mm ctrs for 2 fixings in one direction
Max 750 mm ctrs for 3 fixings in one direction
Note: for high wind-load buildings, ctrs may be reduced

Max 20 mm,
min 10T*

All boards to be riveted
through over-sized holes
with a single fixed point
hole at middle of board.

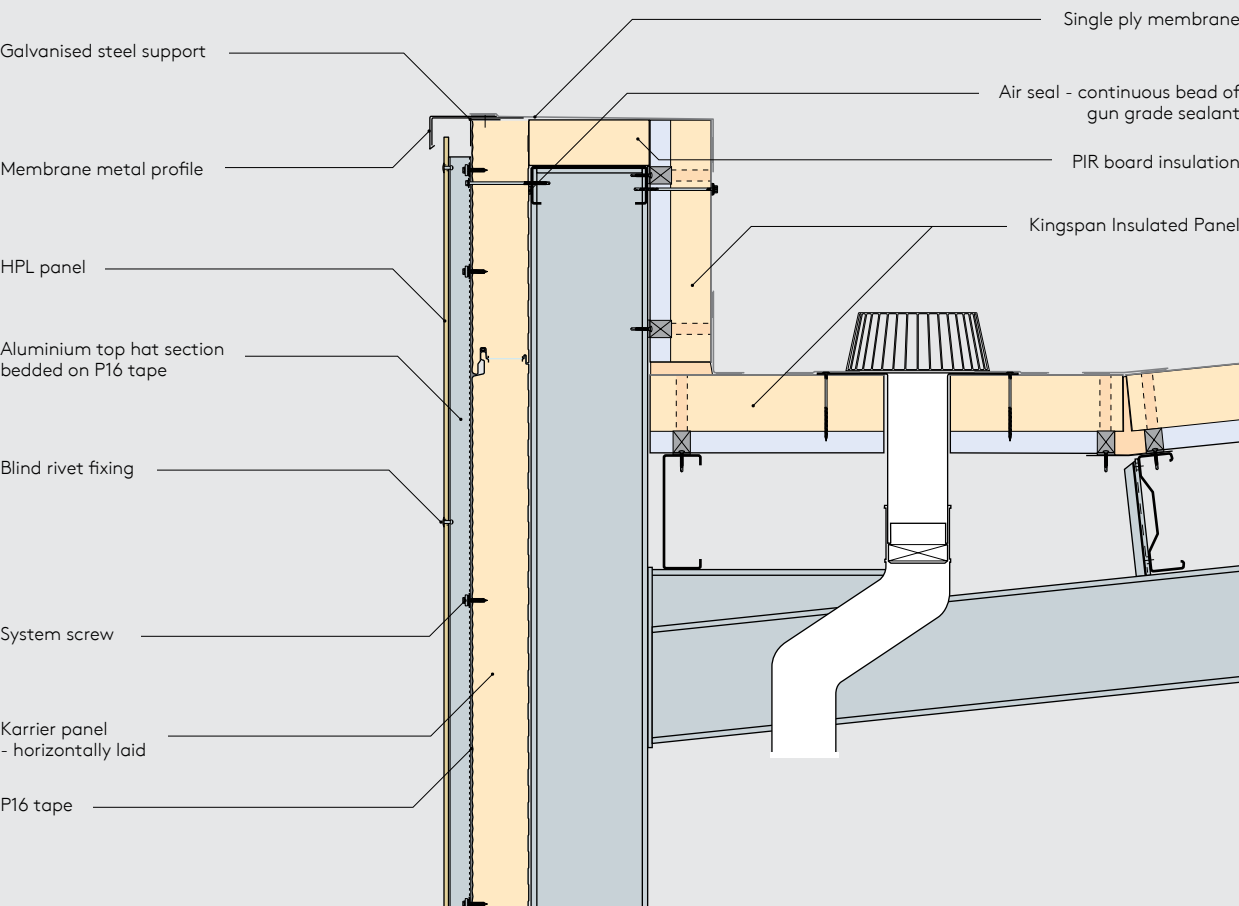
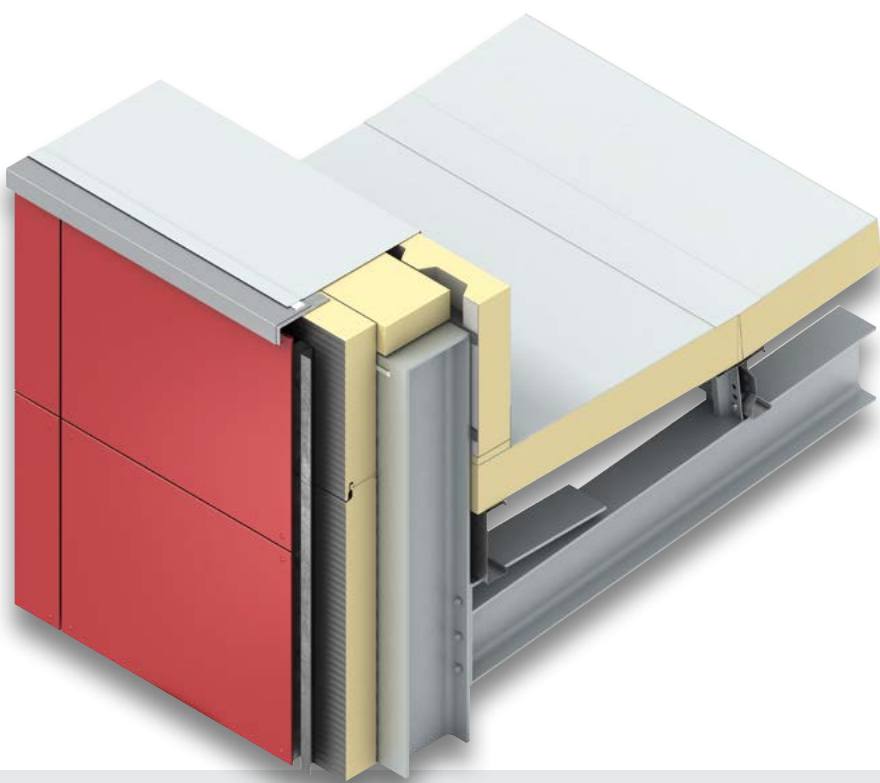
*T = thickness of HPL panel.

Drip Detail
Horizontal application



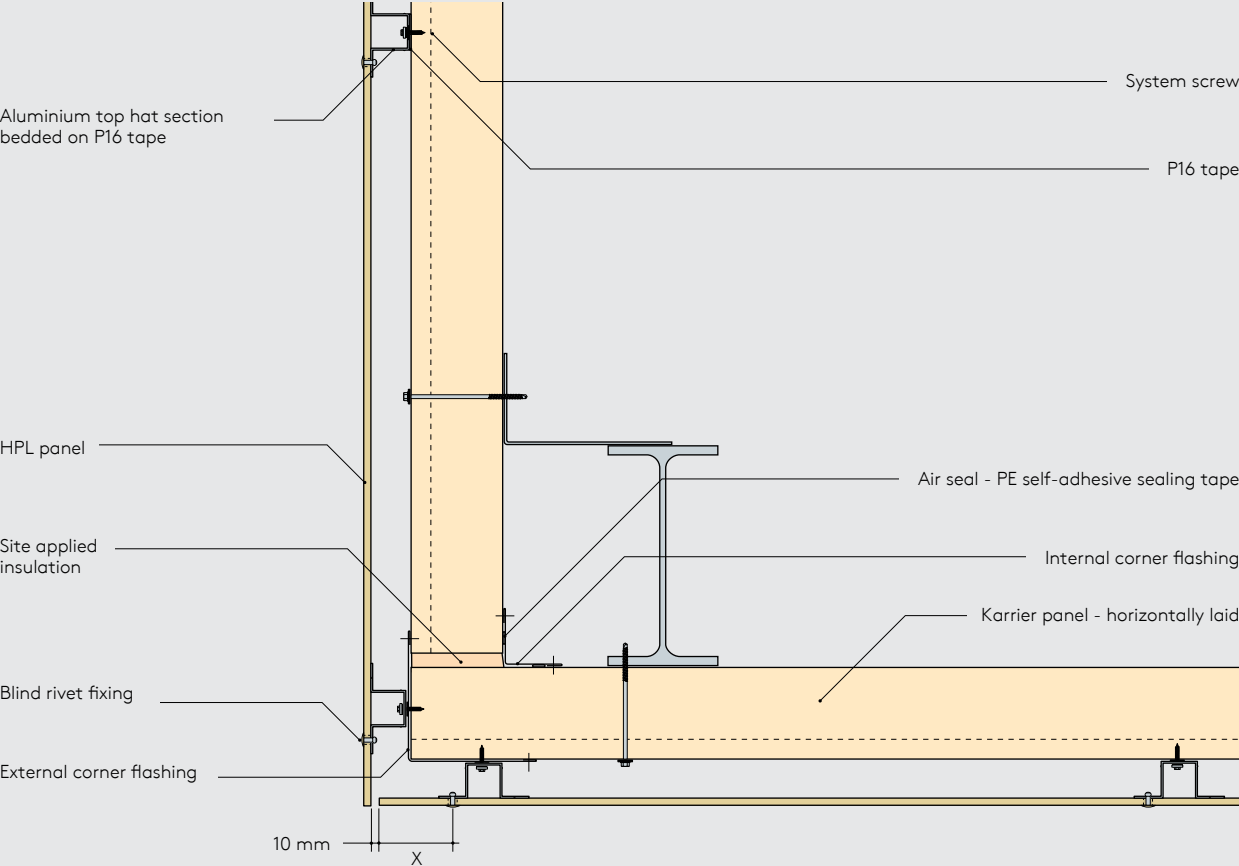
All technical information is subject to alterations. Errors and omissions excepted.

Parapet Detail
Horizontal application



All technical information is subject to alterations. Errors and omissions excepted.

Corner Detail
Horizontal application

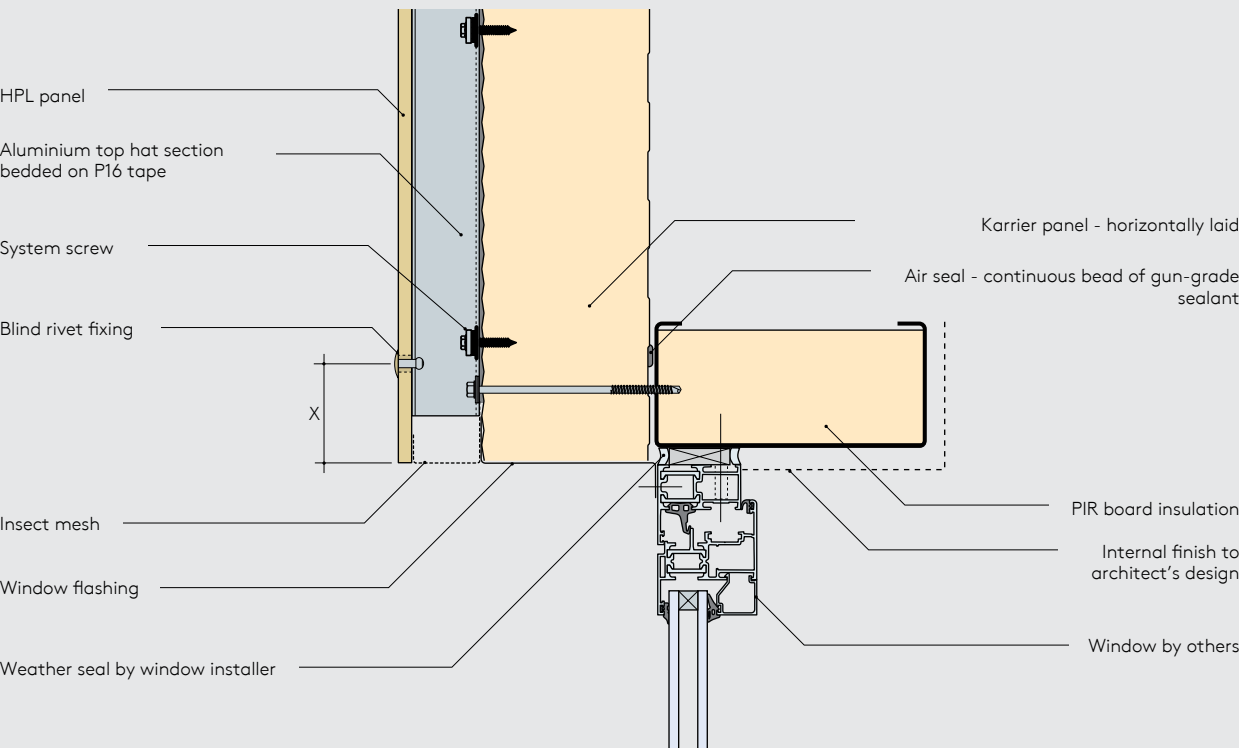


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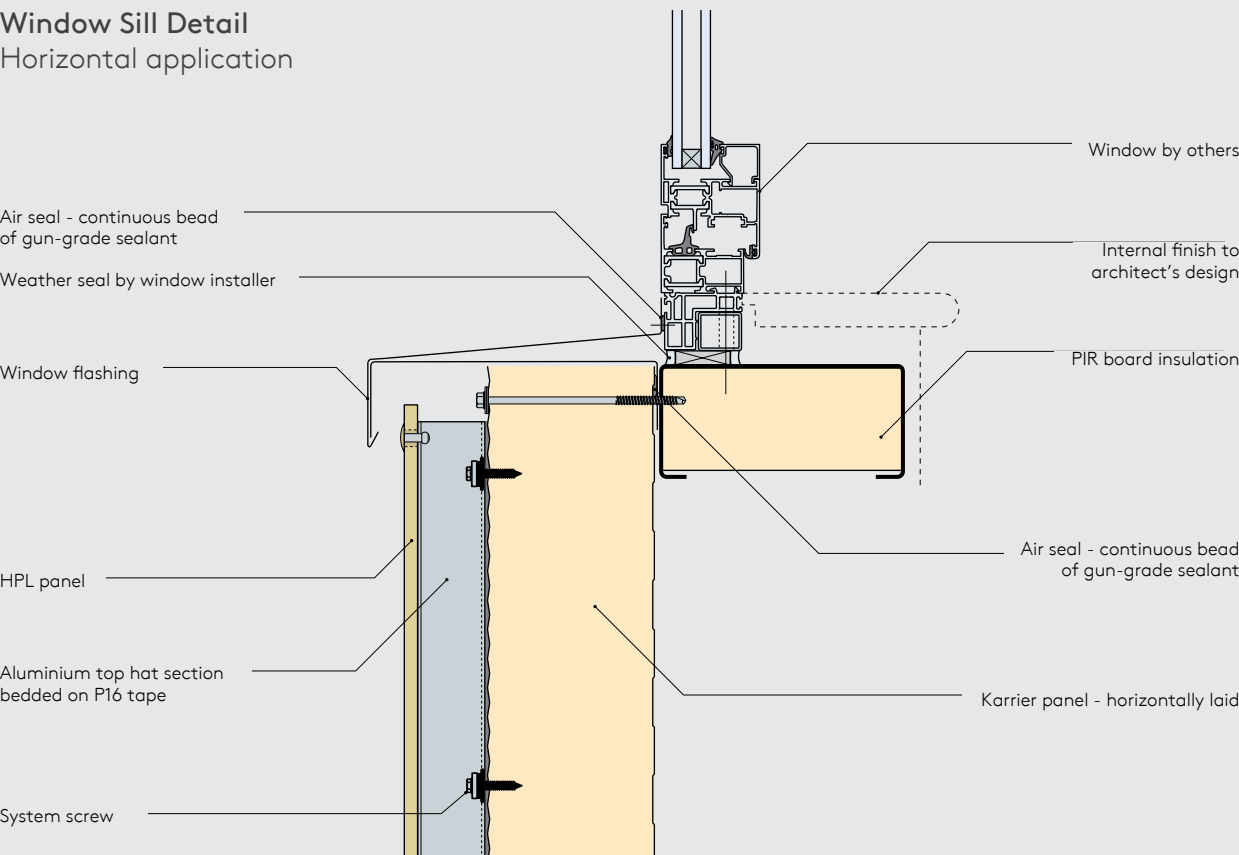
Worcestershire County Cricket Club
Worcester, United Kingdom
Product
Karrier + HPL



Window Head Detail Horizontal application

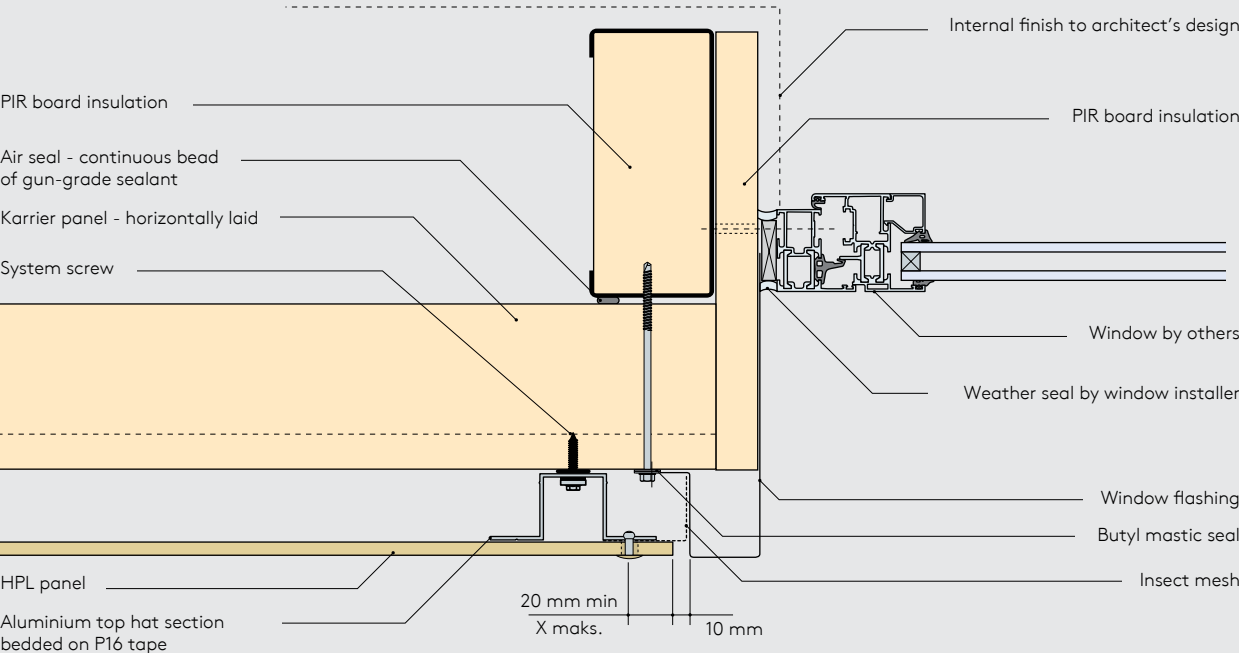
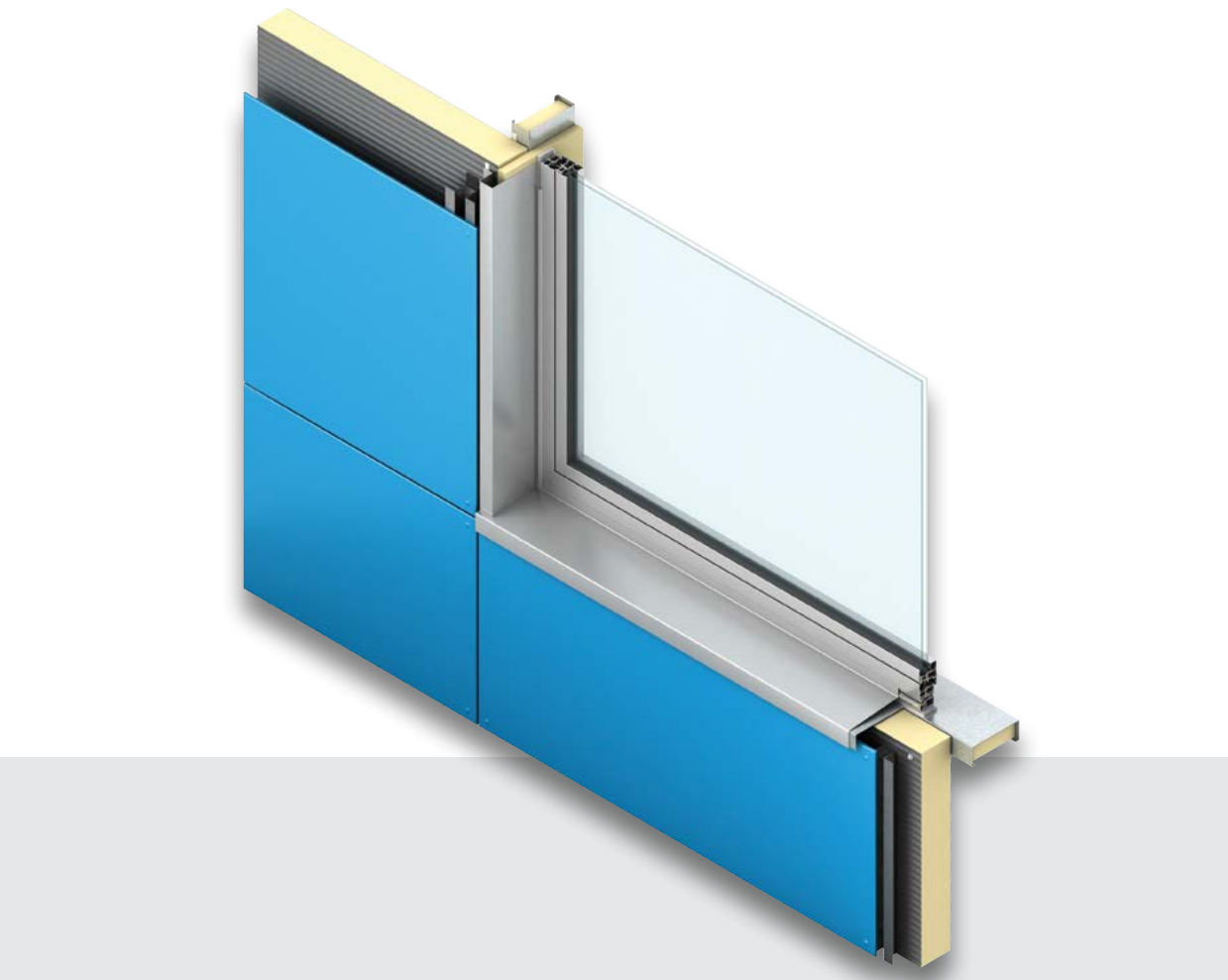


Window Sill Detail Horizontal application



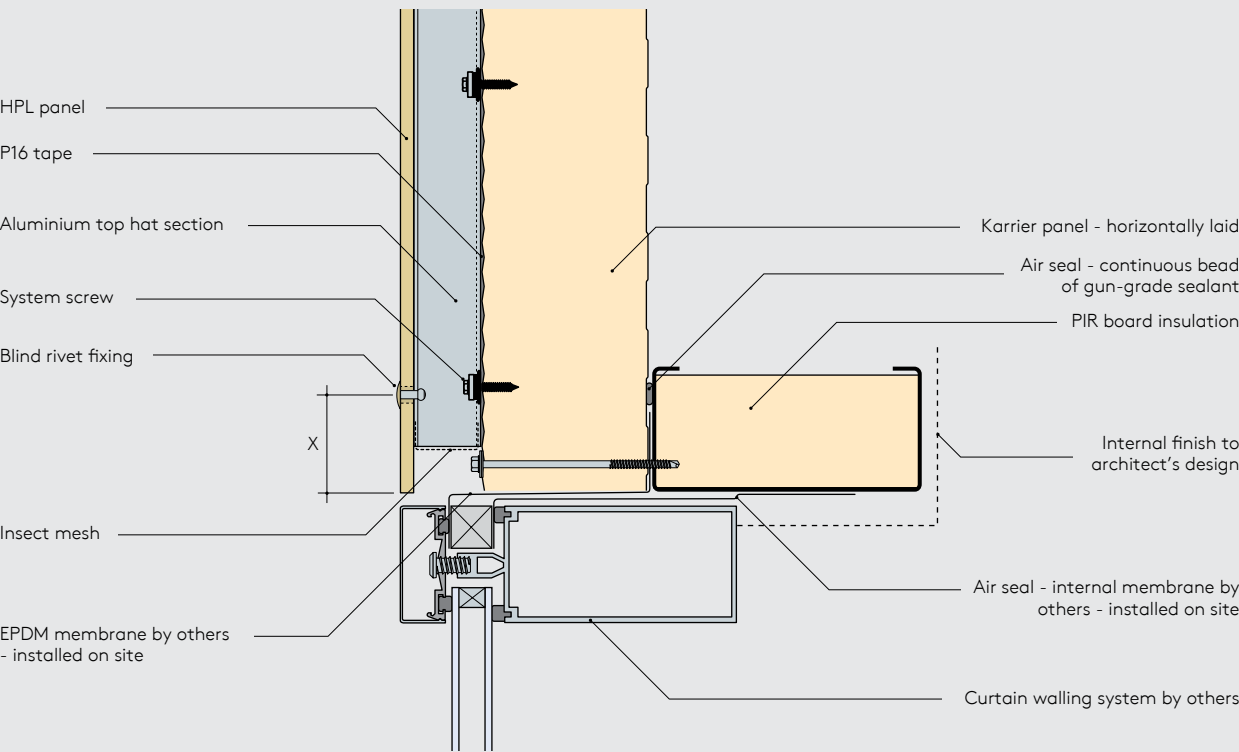
All technical information is subject to alterations. Errors and omissions excepted.

Window Jamb Detail Horizontal application

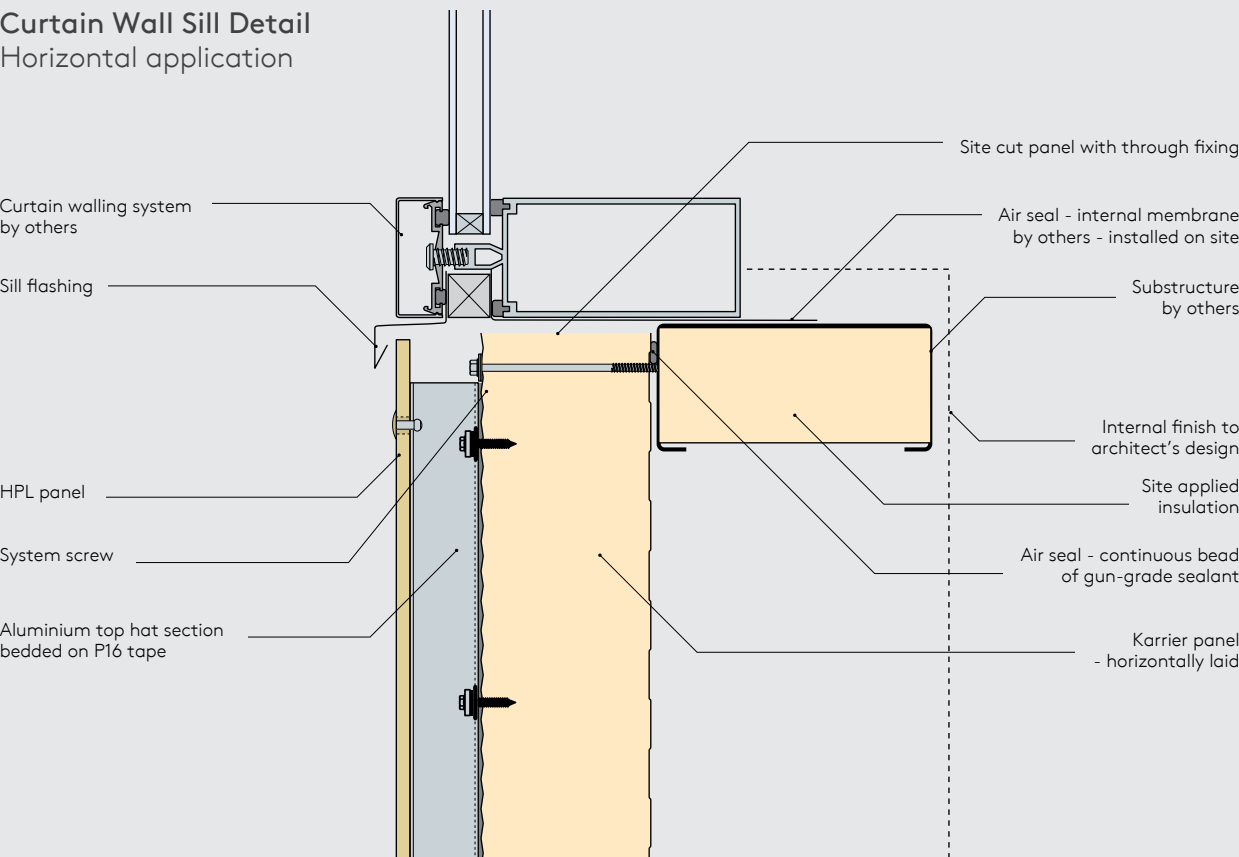


All technical information is subject to alterations. Errors and omissions excepted.

Curtain Wall Head Detail
Horizontal application

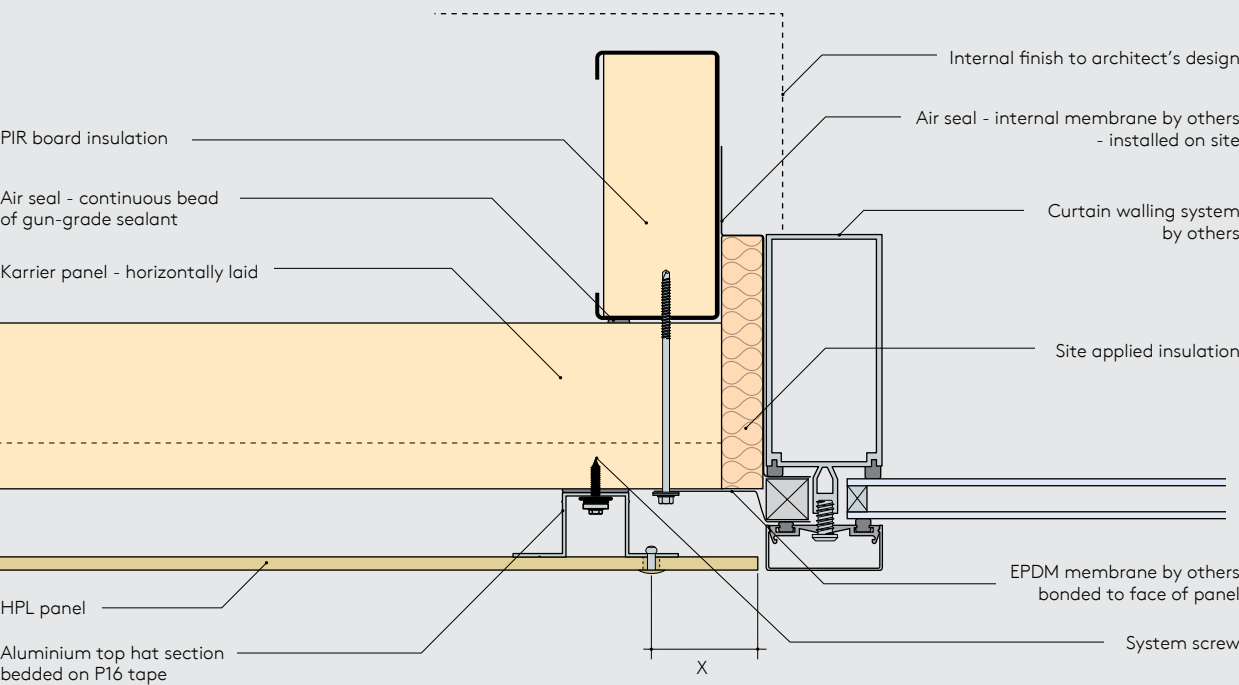


Curtain Wall Sill Detail
Horizontal application



All technical information is subject to alterations. Errors and omissions excepted.

Curtain Wall Jamb Detail
Horizontal application



All technical information is subject to alterations. Errors and omissions excepted.

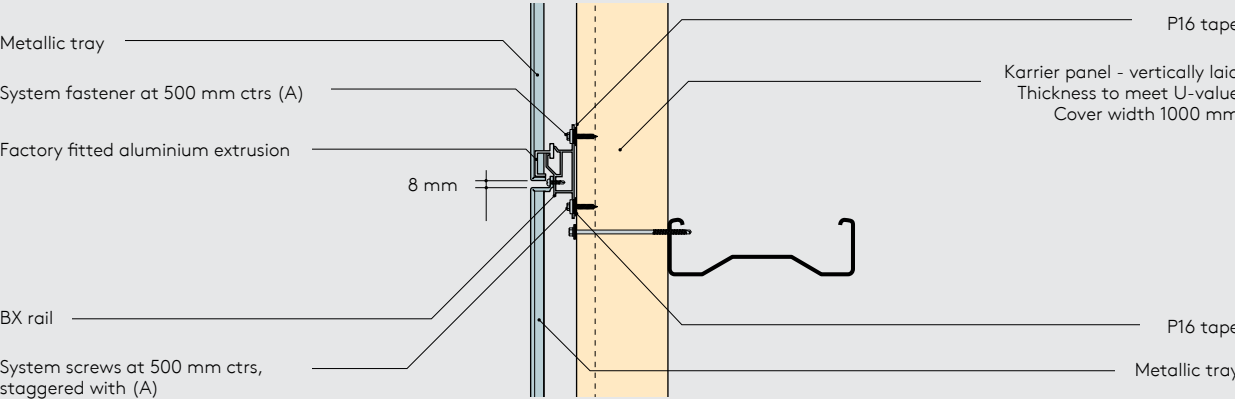
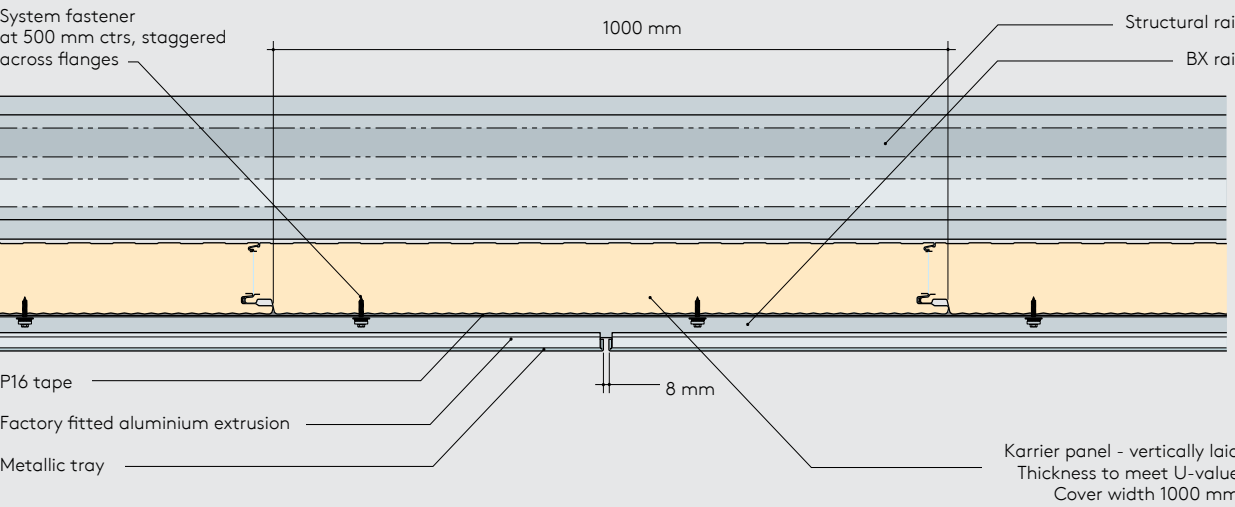
ACM system overview

ACM (aluminium composite material) trays consist of two high quality aluminium alloy sheets fully bonded to a high performance polyethylene core. The trays feature a folded top edge with an extruded aluminium track bonded at the base of the reverse.

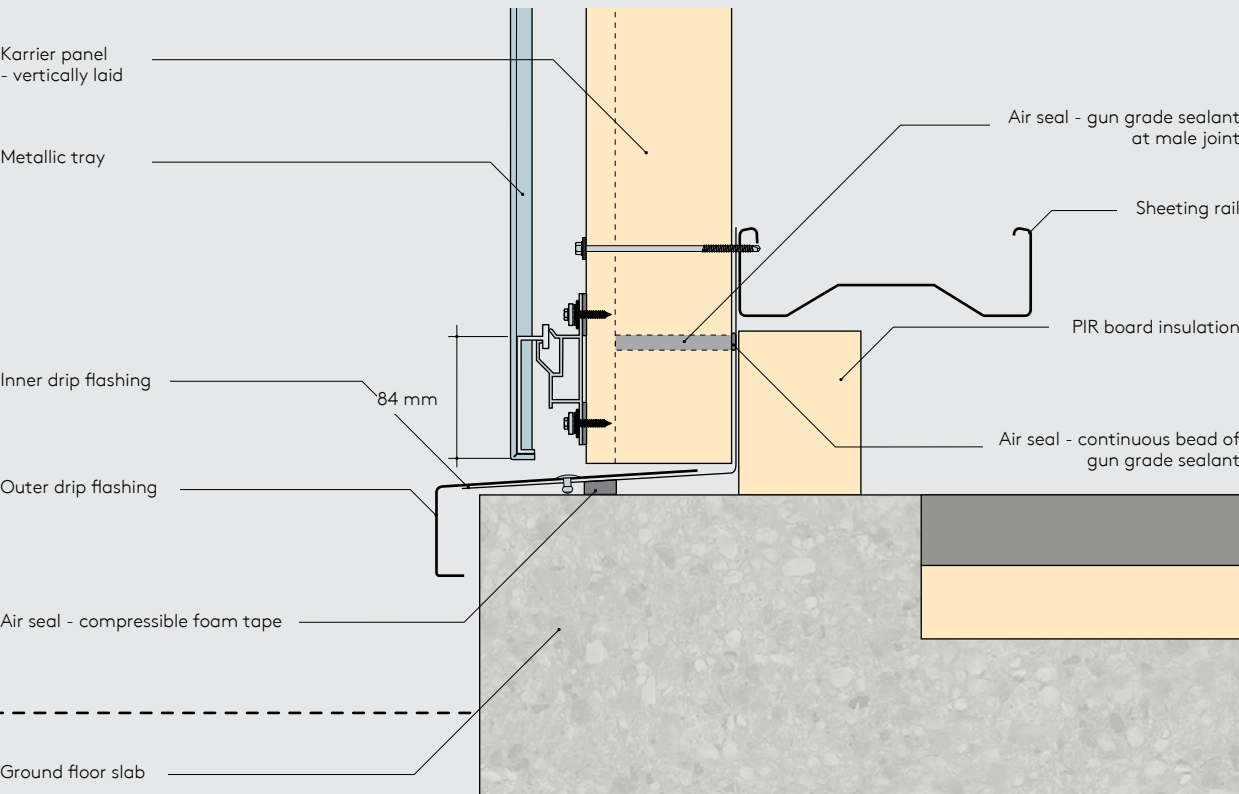
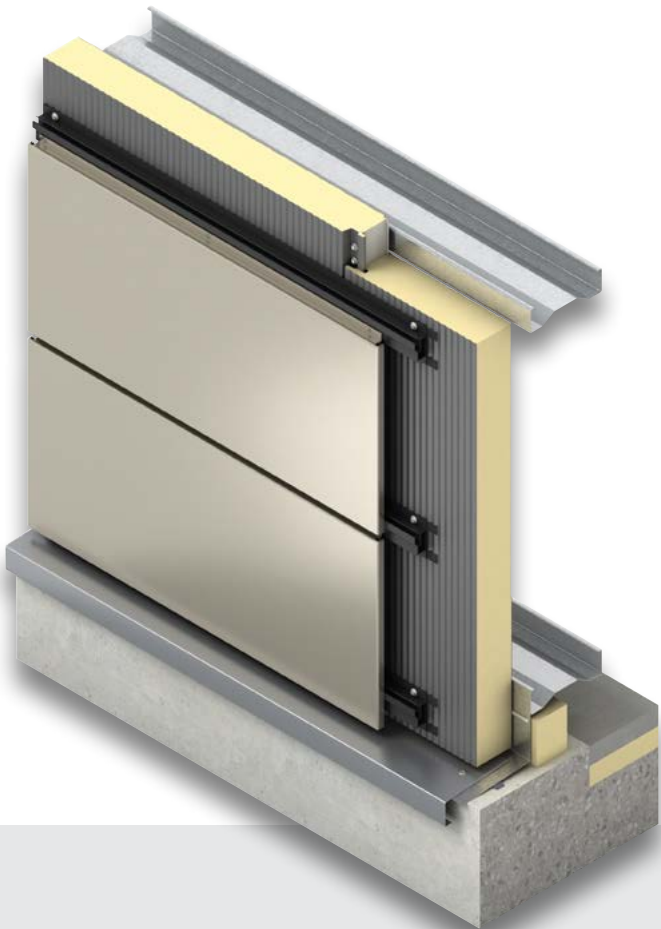
A PVdF coating is applied to the aluminium prior to lamination into the end product as a composite panel. Aluminium sheet thickness is 0.5 mm with an overall ACM thickness of 4.0 mm.

A black coated aluminium secondary rail system is face fixed to the Karrier panel system. The folded top edge of the tray is secured to the secondary rail system using self drilling screws.

System Layout Vertical application

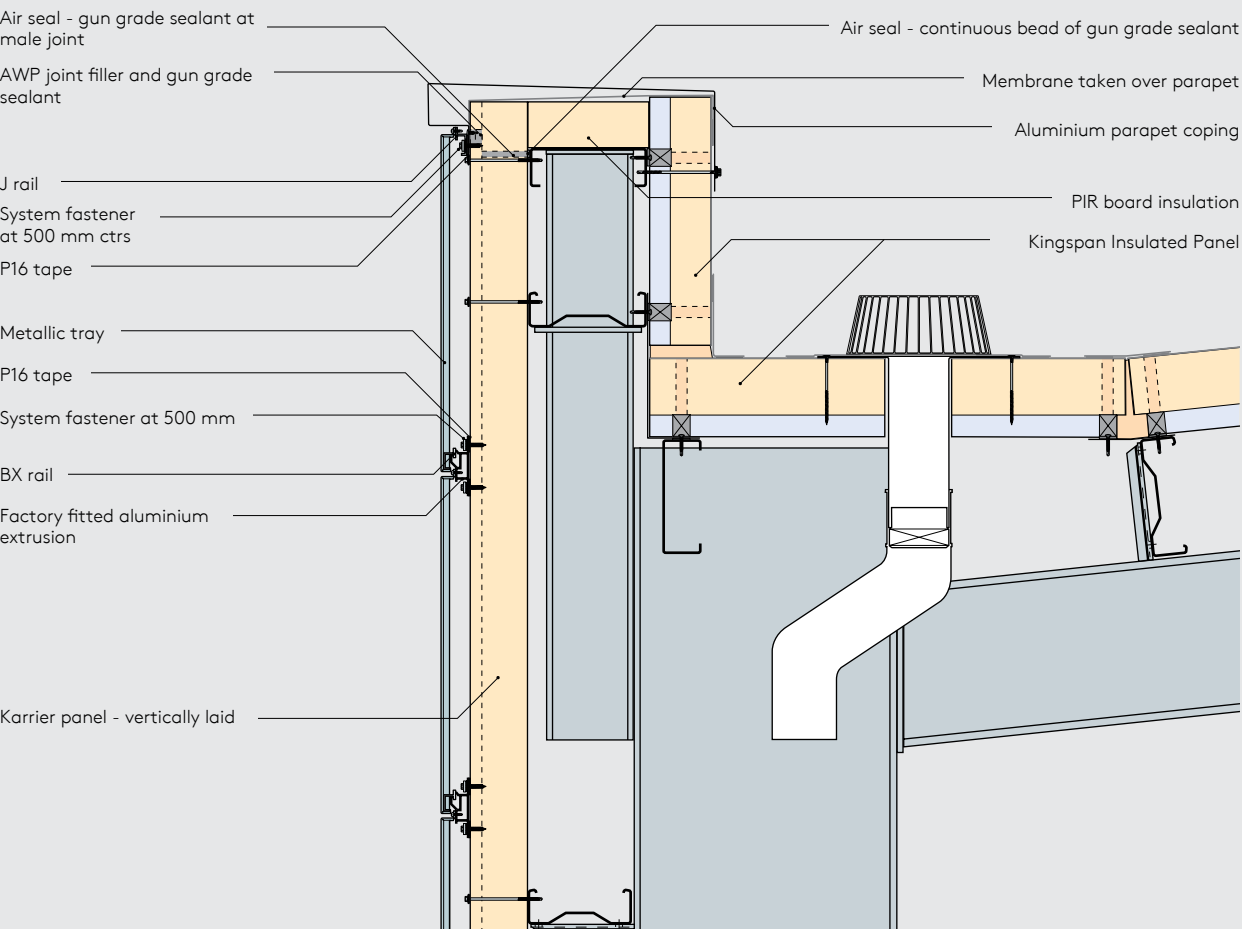
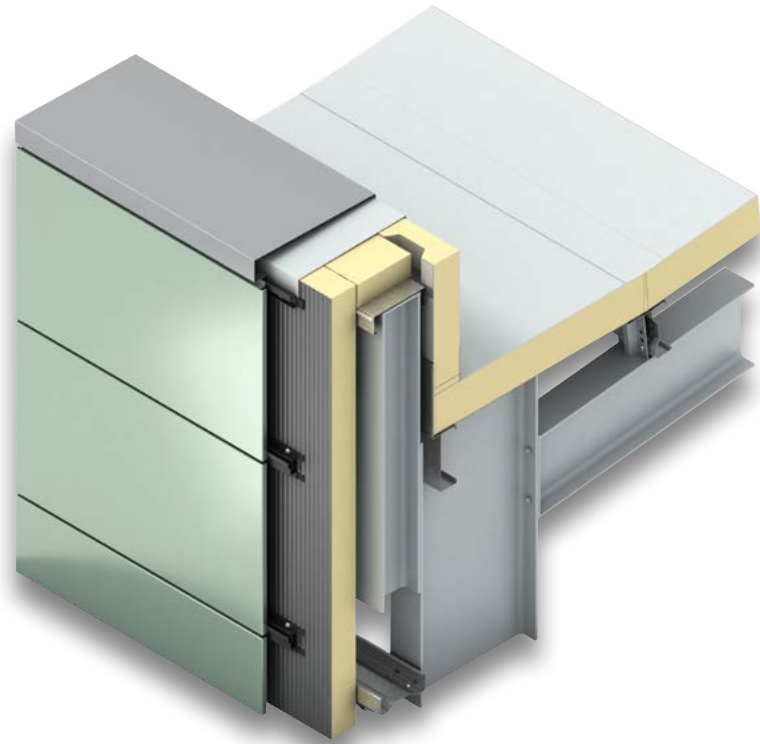


Drip Detail Vertical application



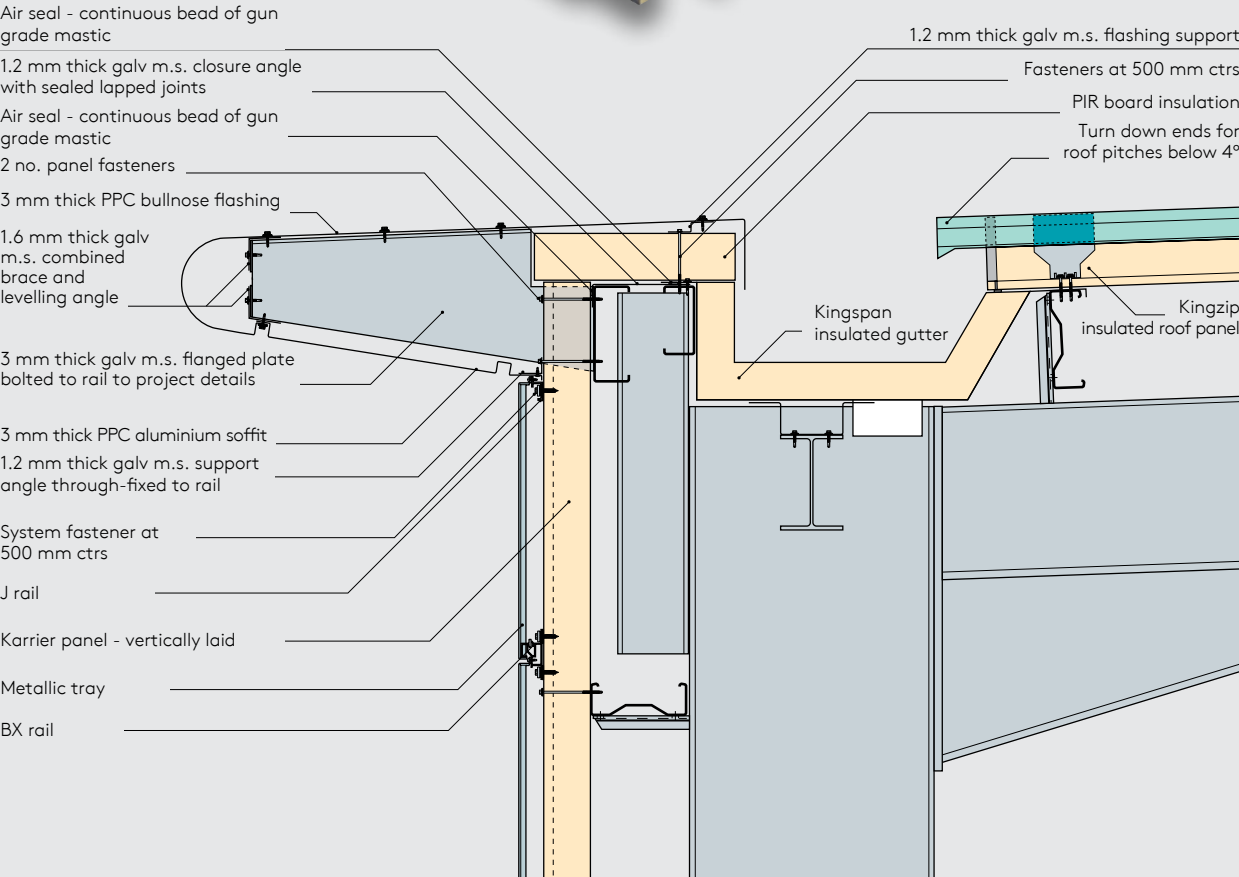
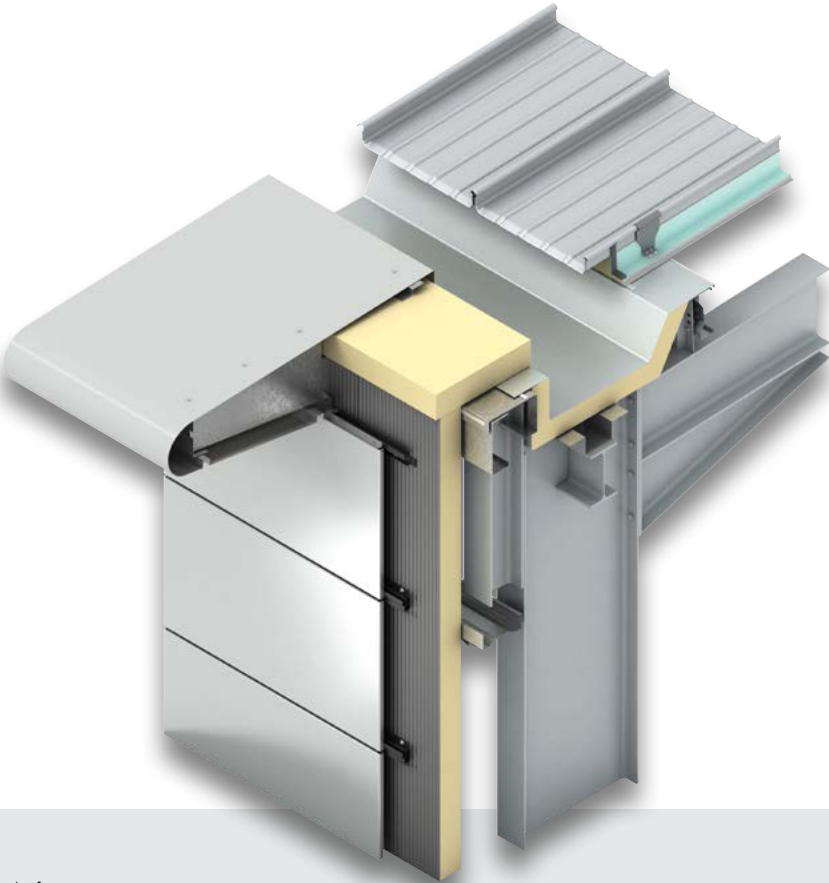
All technical information is subject to alterations. Errors and omissions excepted.

Parapet Detail
Vertical application



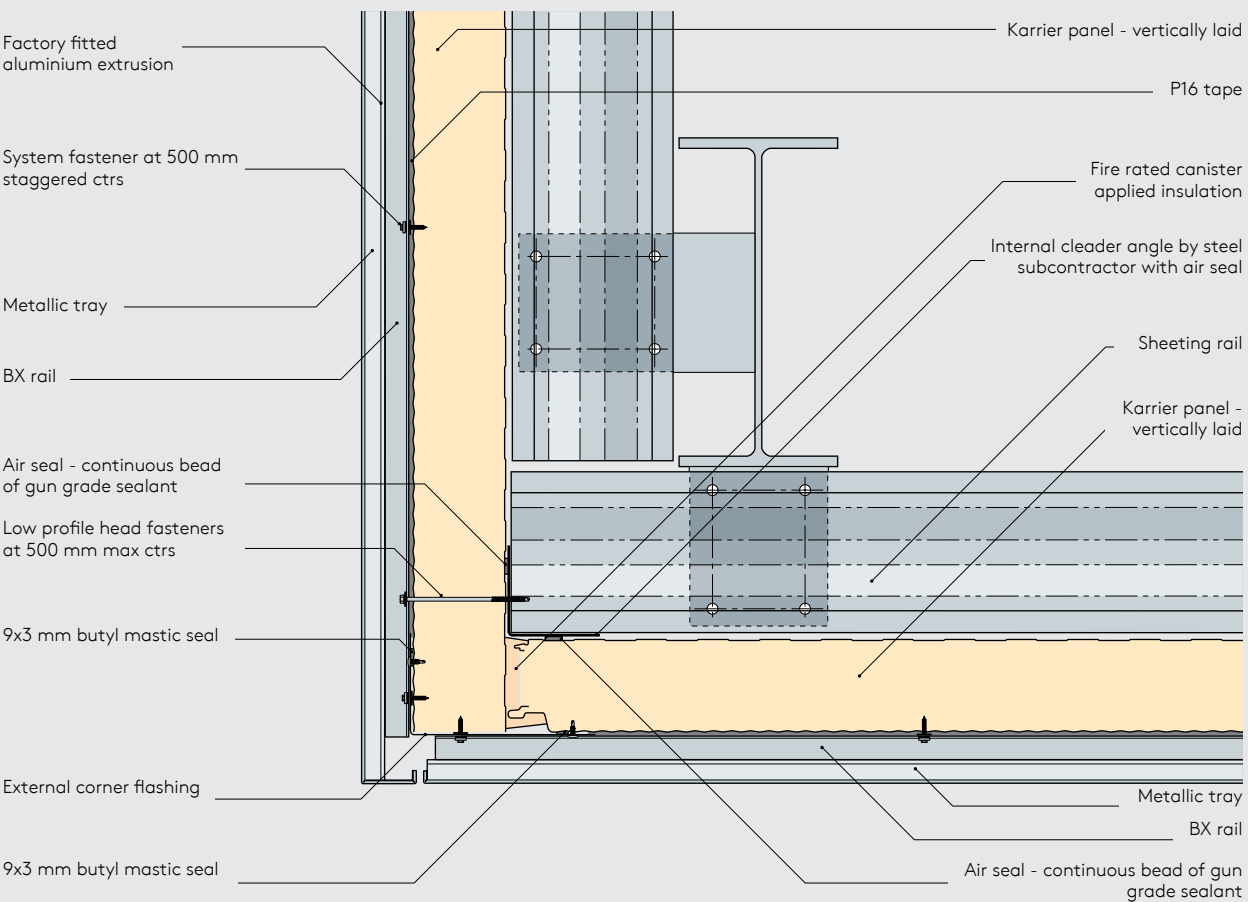
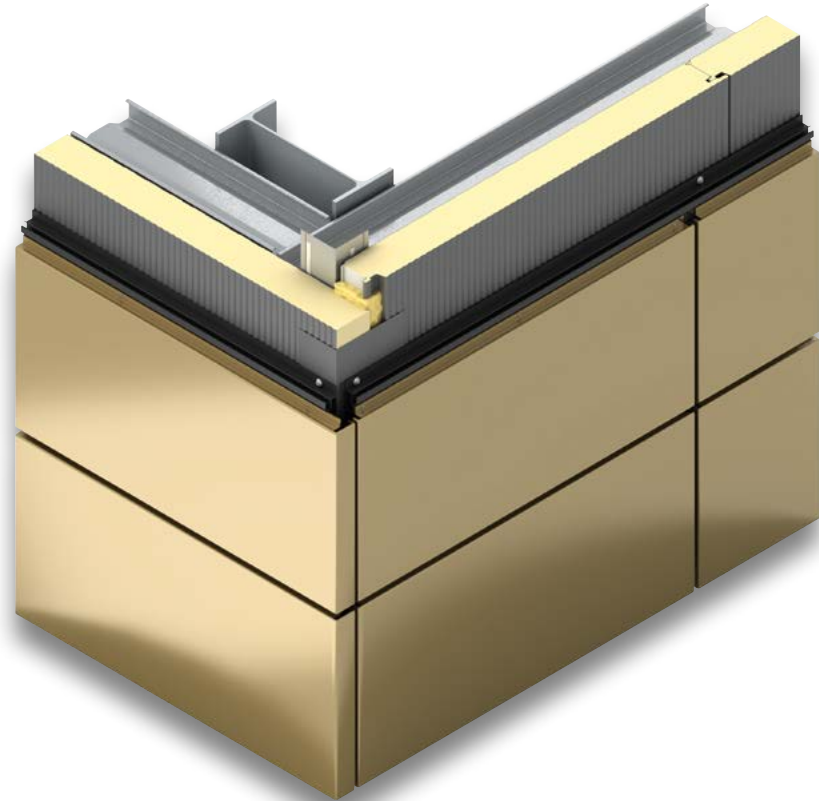
All technical information is subject to alterations. Errors and omissions excepted.

Bullnose Eaves Detail
Vertical application



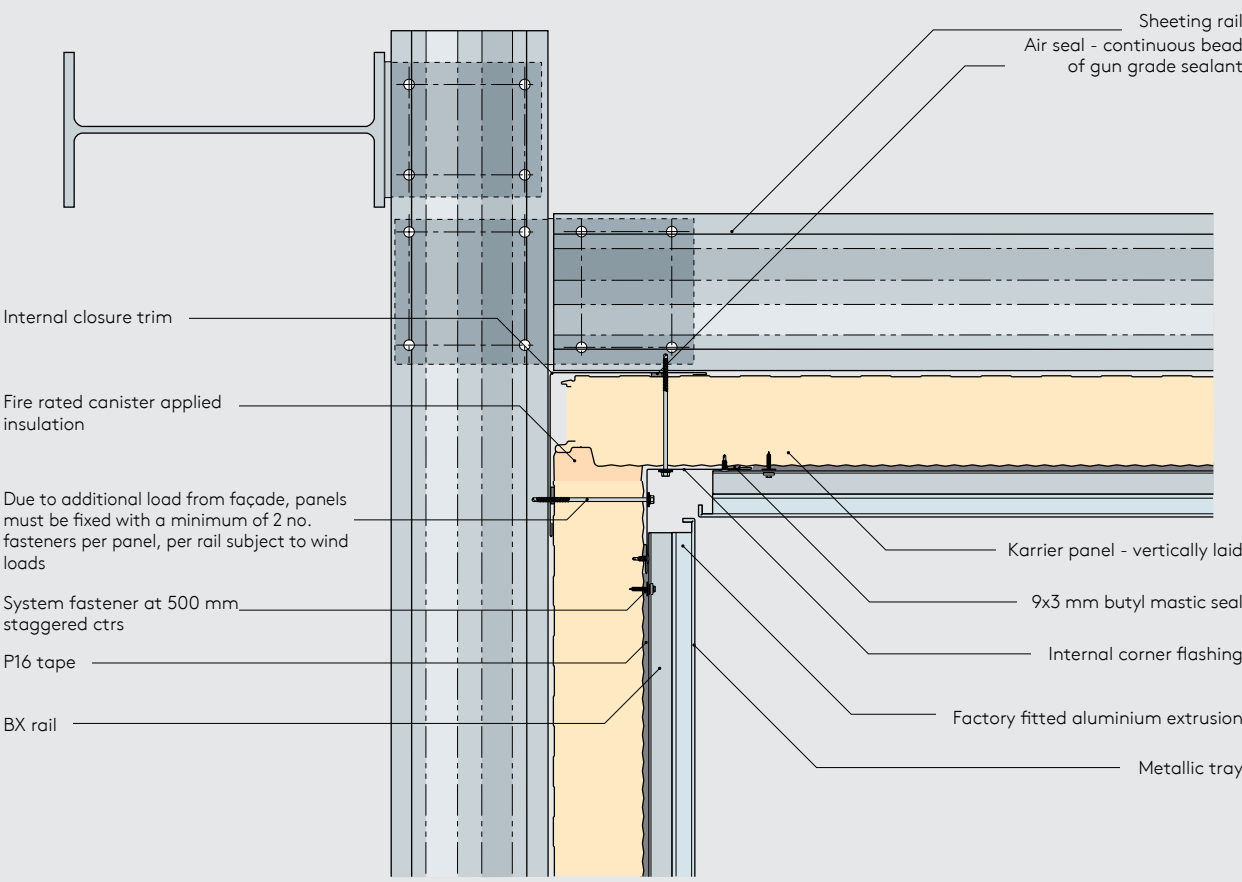
All technical information is subject to alterations. Errors and omissions excepted.

External Corner Detail
Vertical application



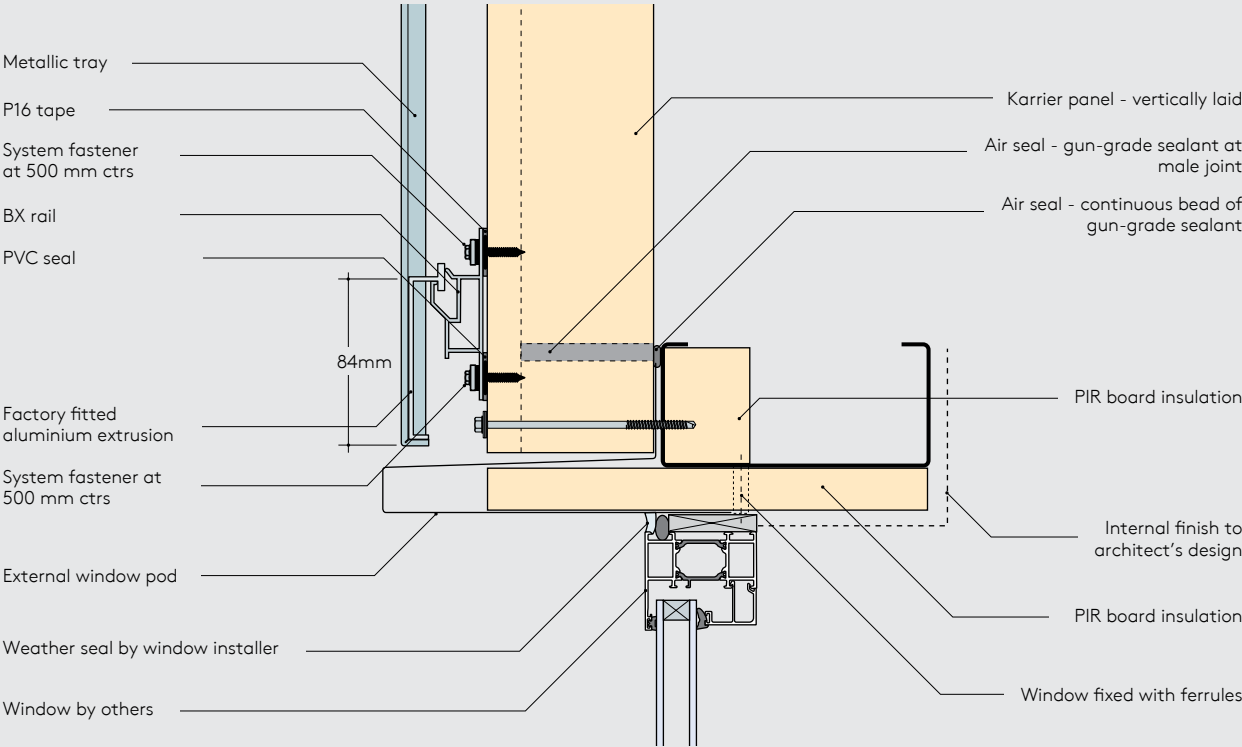
All technical information is subject to alterations. Errors and omissions excepted.

Internal Corner Detail
Vertical application

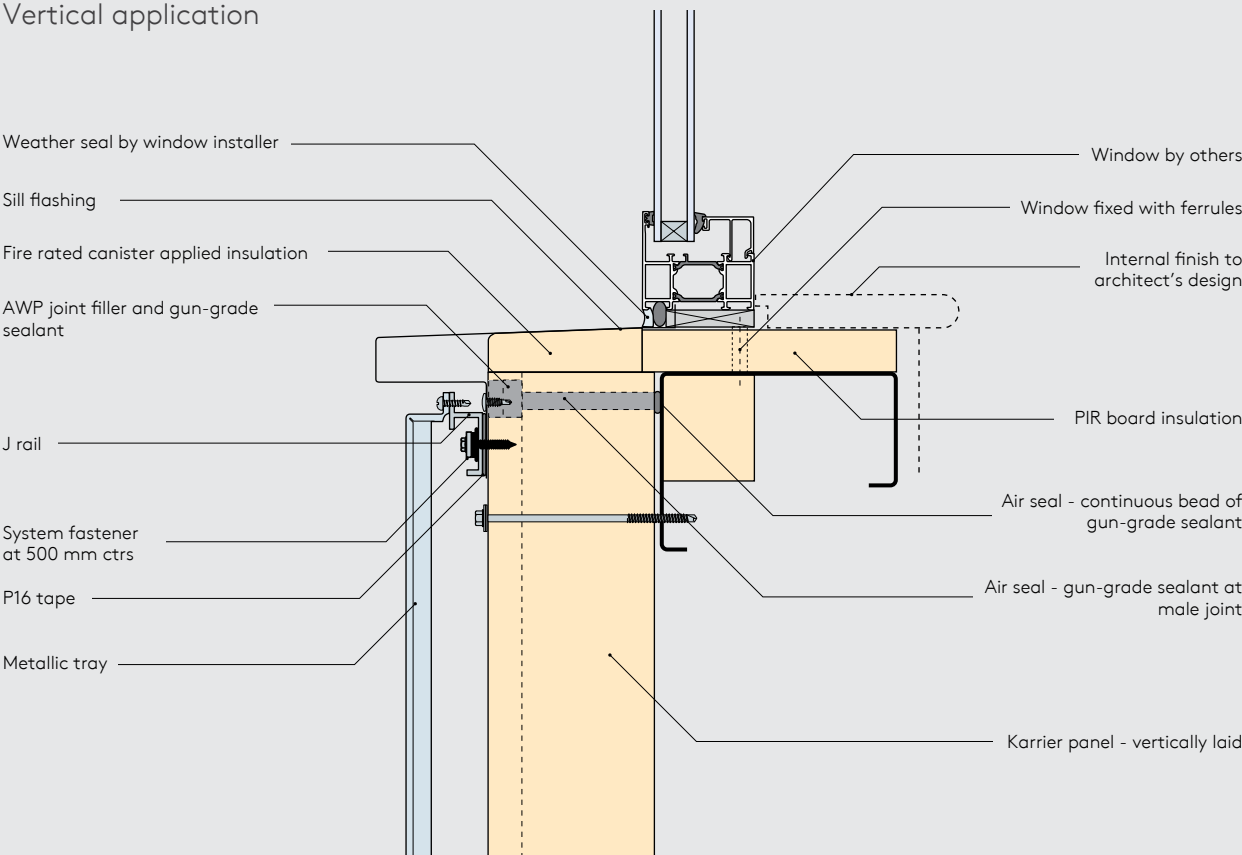


All technical information is subject to alterations. Errors and omissions excepted.

Window Head Detail Vertical application

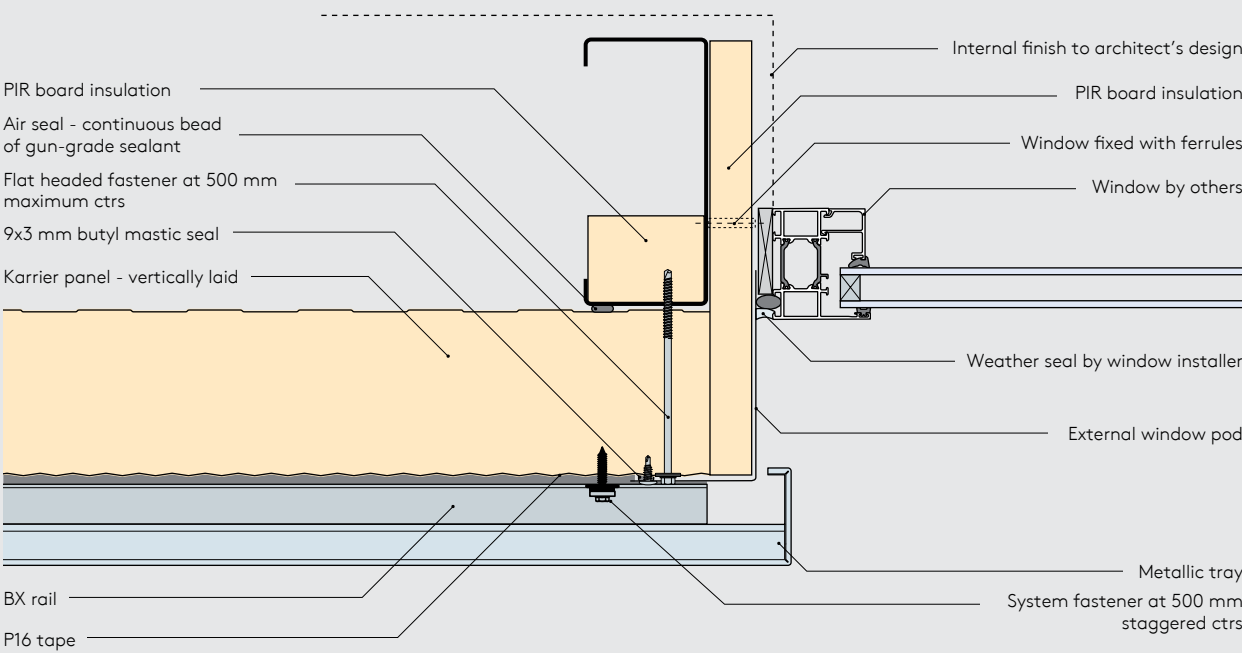


Window Sill Detail Vertical application



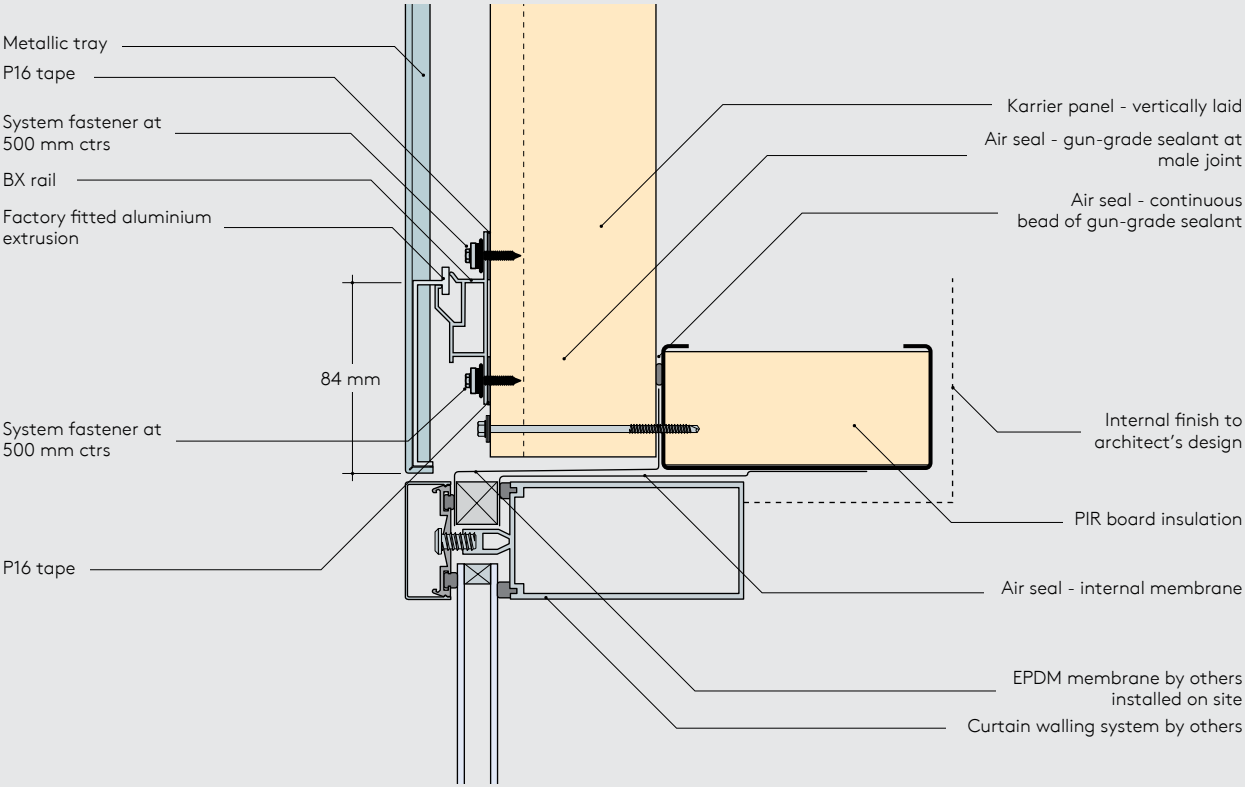
All technical information is subject to alterations. Errors and omissions excepted.

Window Jamb Detail Vertical application

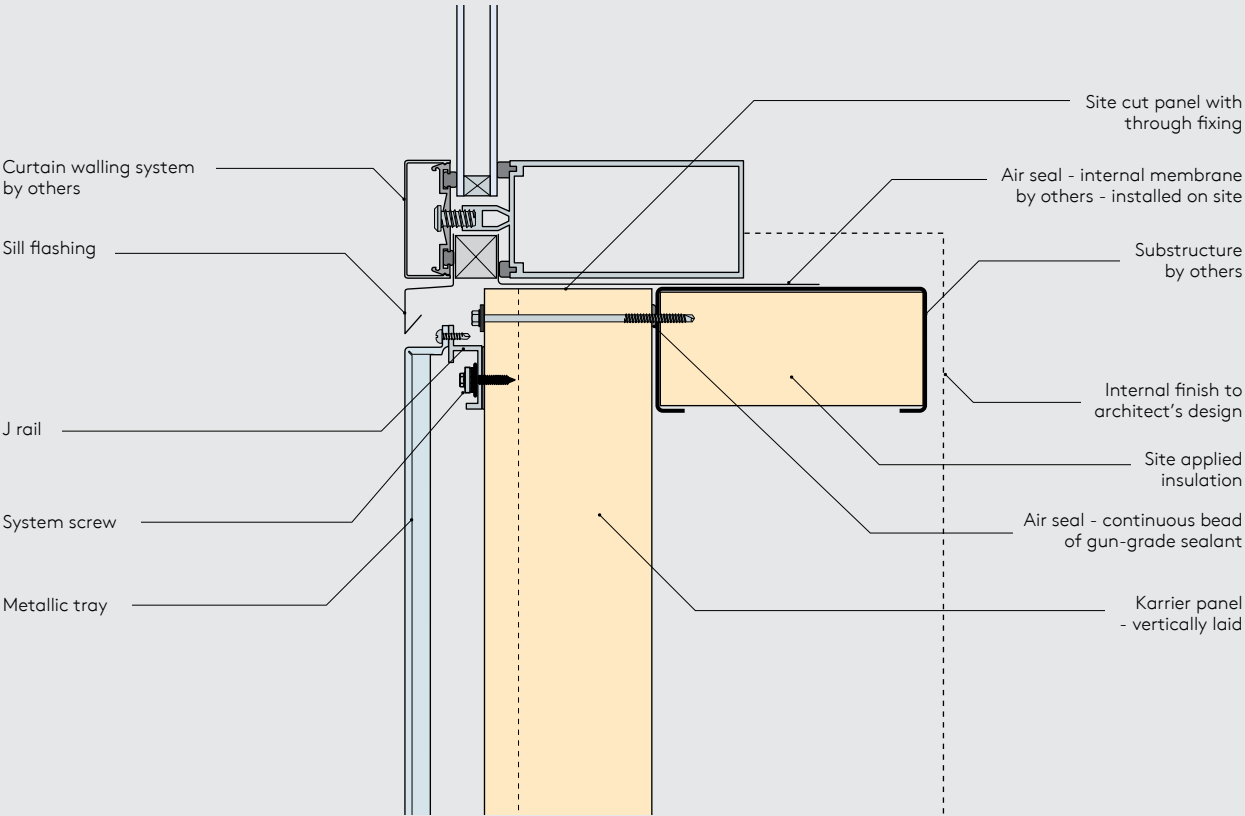


All technical information is subject to alterations. Errors and omissions excepted.

Curtain Wall Head Detail Vertical application

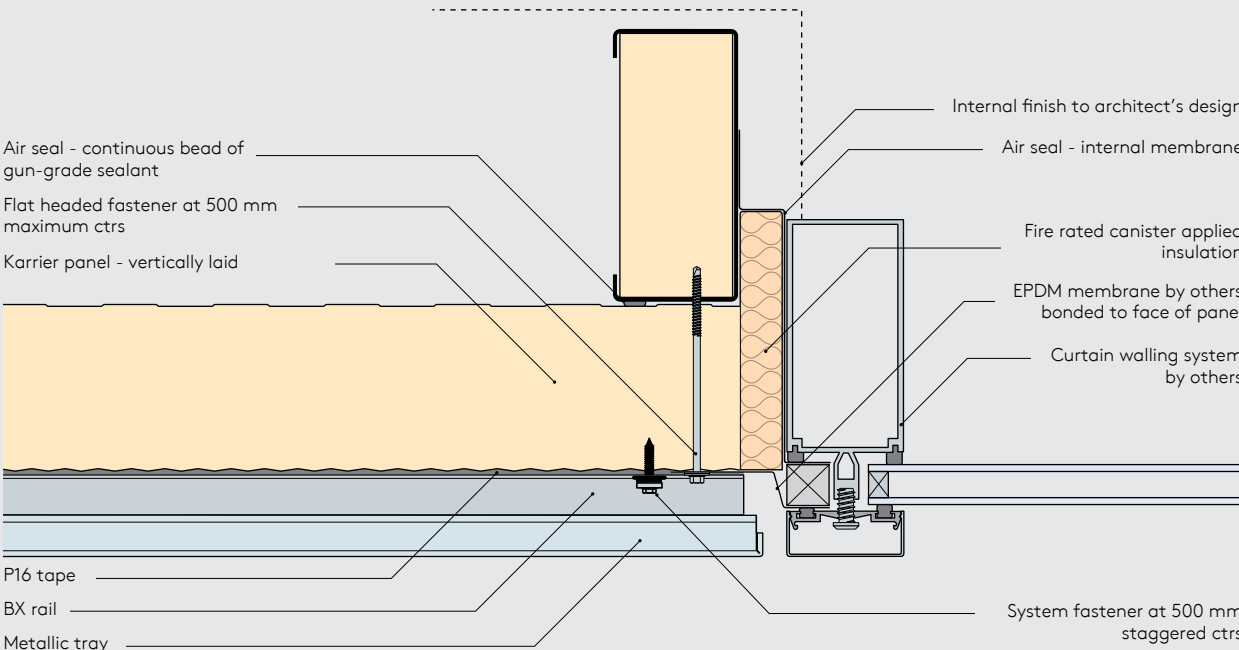


Curtain Wall Sill Detail Vertical application



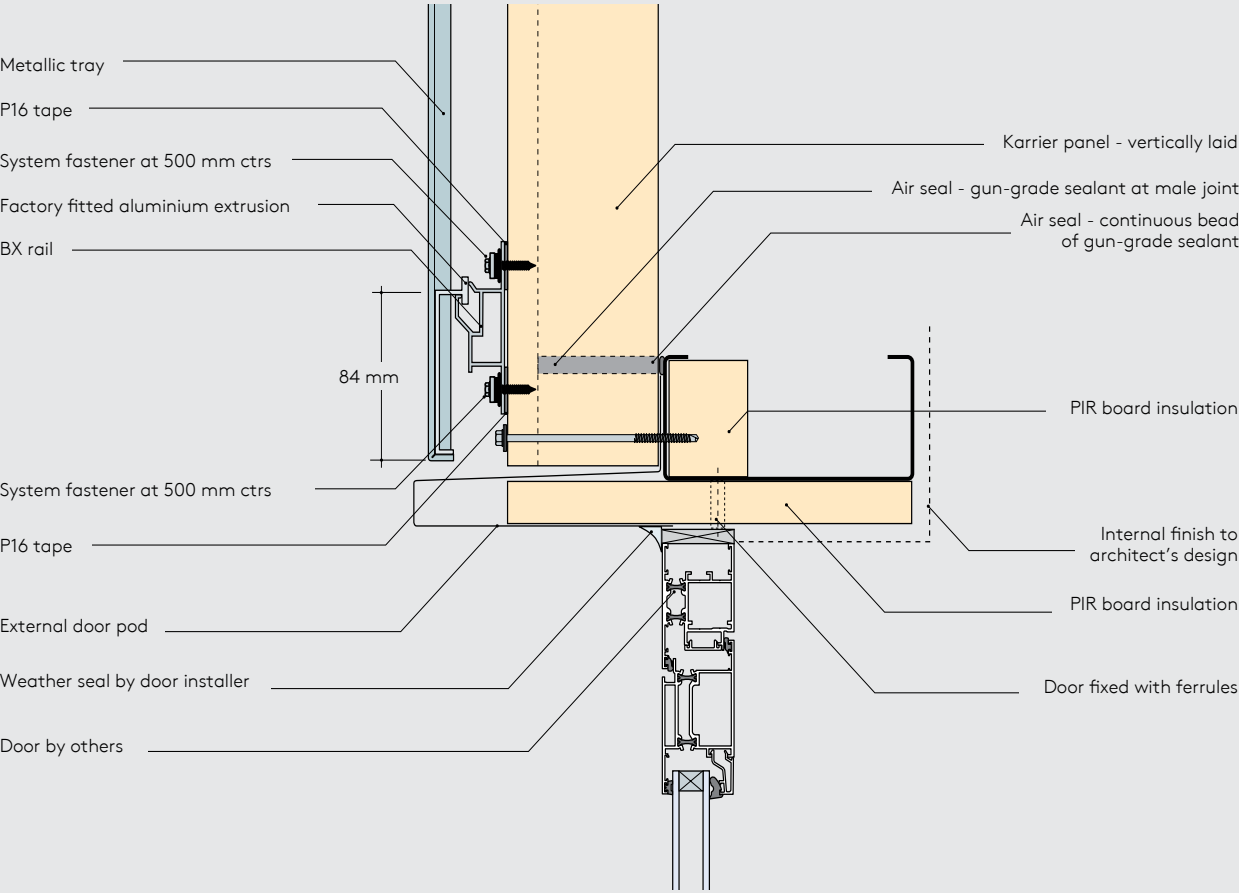
All technical information is subject to alterations. Errors and omissions excepted.

Curtain Wall Jamb Detail Vertical application

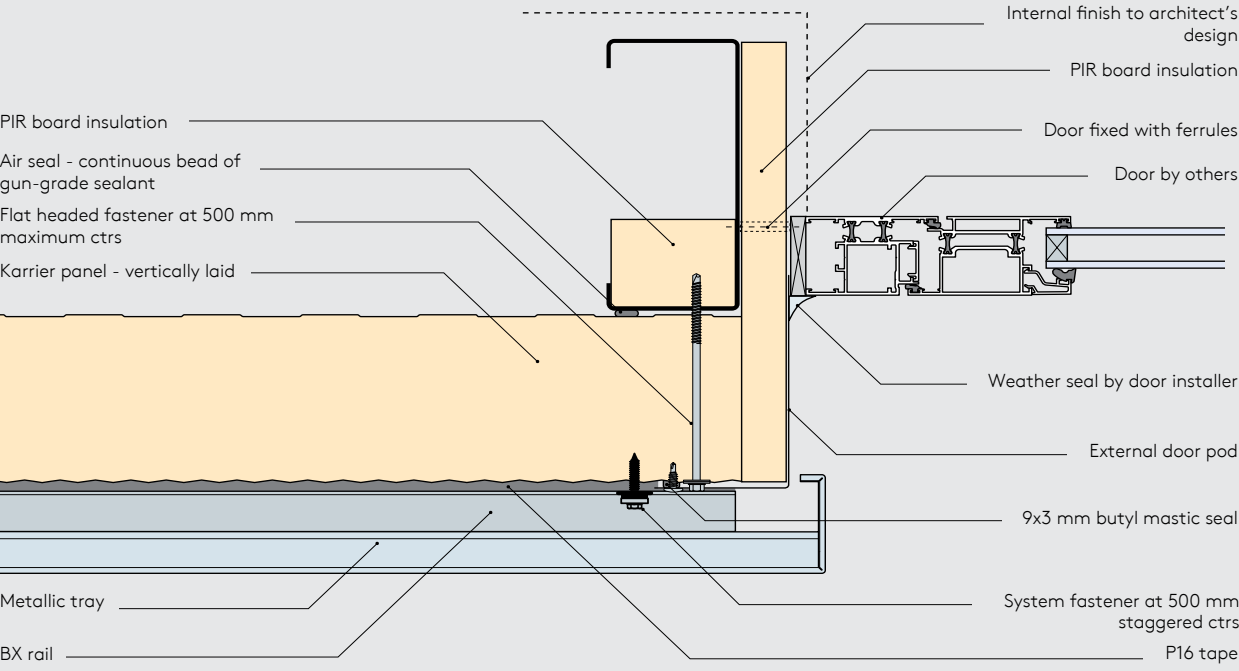


All technical information is subject to alterations. Errors and omissions excepted.

Door Head Detail
Vertical application



Door Jamb Detail
Vertical application



All technical information is subject to alterations. Errors and omissions excepted.

Friars Walk shopping centre
Newport, United Kingdom
Product
Karrier + ACM



Projects gallery

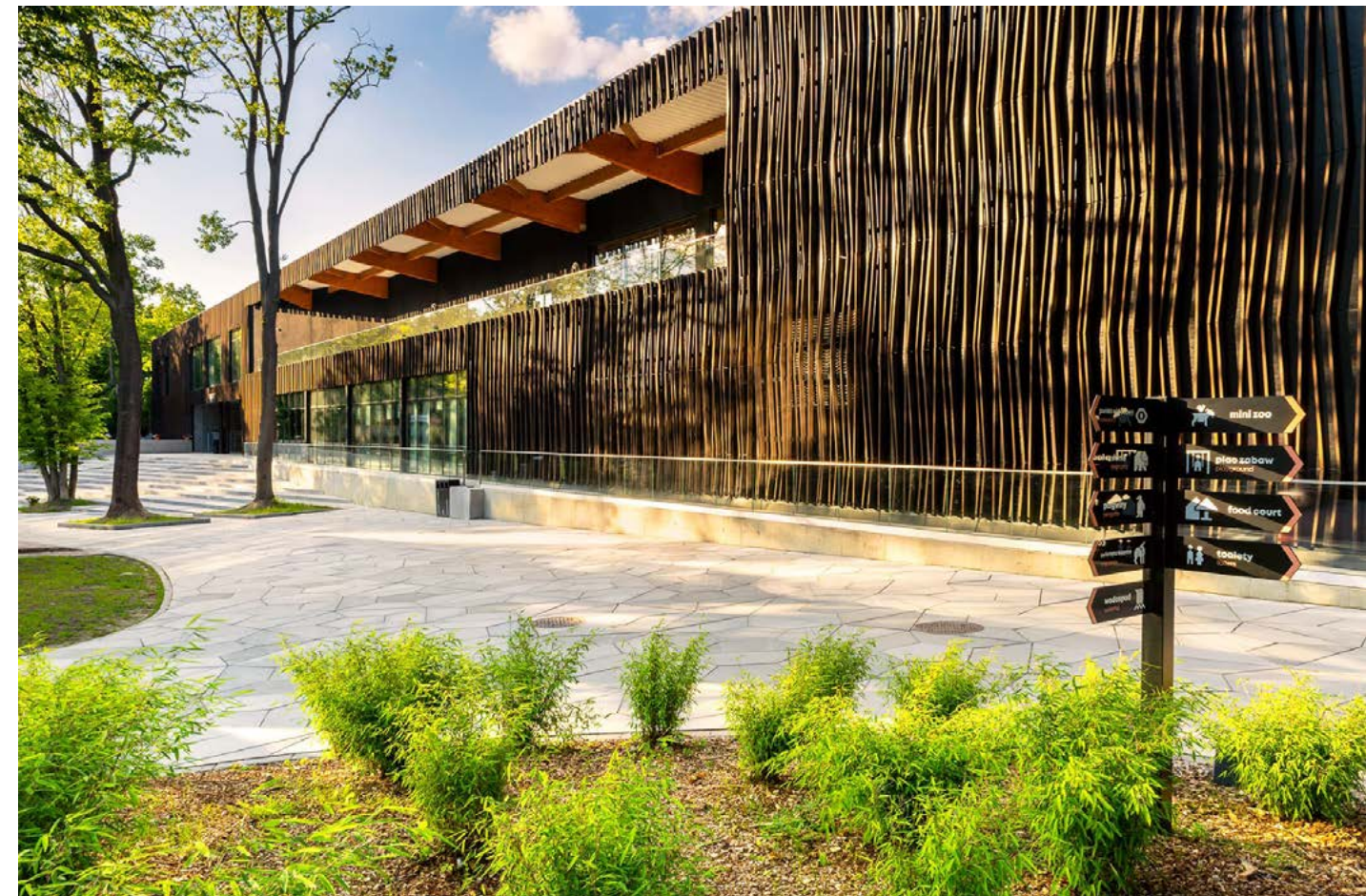
Orientalium building (ZOO)

Łódź, Poland

—

Product

Karrier + bamboo lamelas





Friars Walk shopping centre
Newport, United Kingdom
—
Product
Karrier + ACM



Mega shopping center
Kaunas, Lithuania
—
Product
Karrier + ceramic tiles



Lazdynai swimming pool

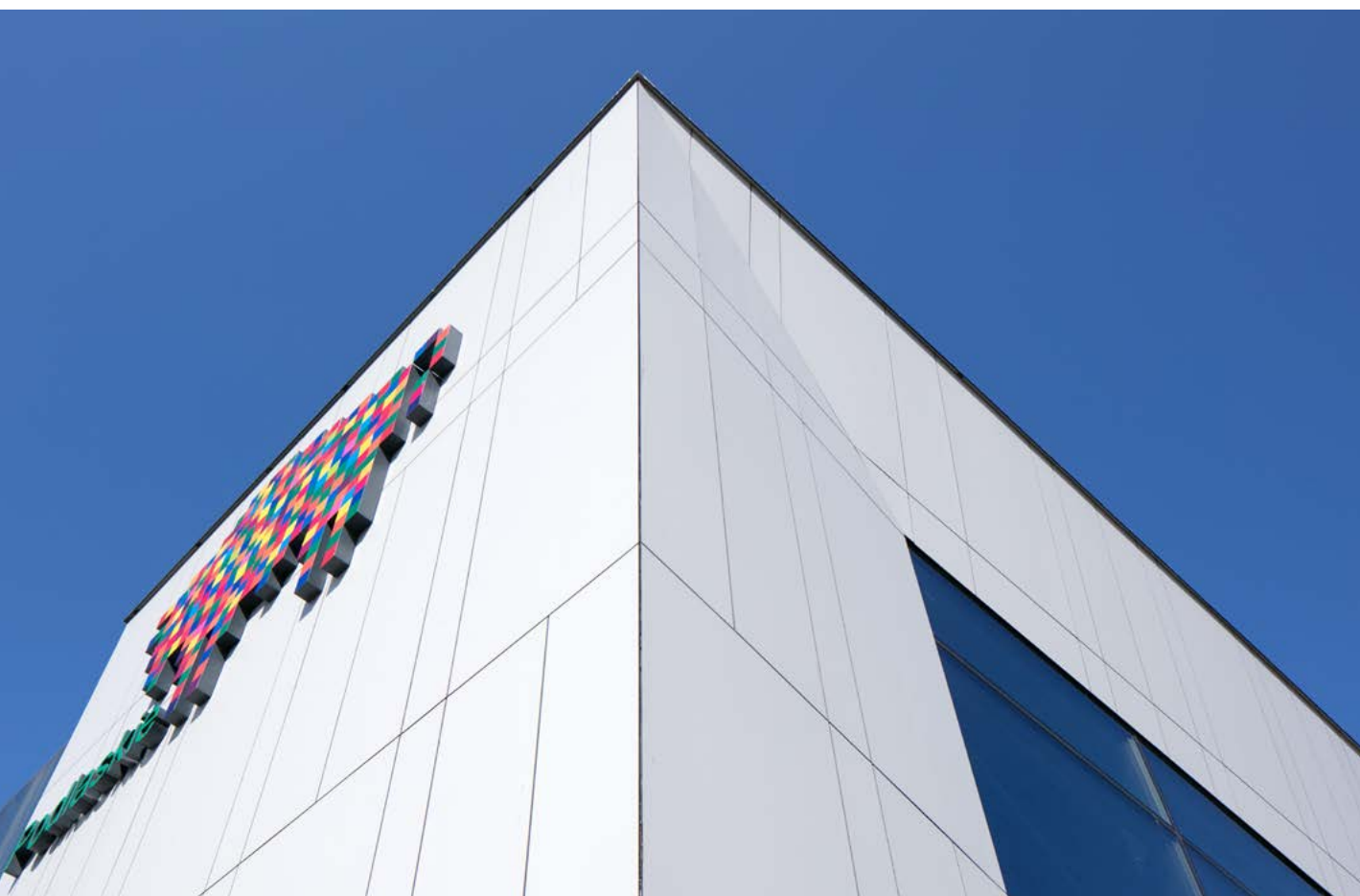
Vilnius, Lithuania

Product

Karrier + glassfibre concrete

Karrier system
Architectural Facade Systems





Central bus station

Białystok, Poland

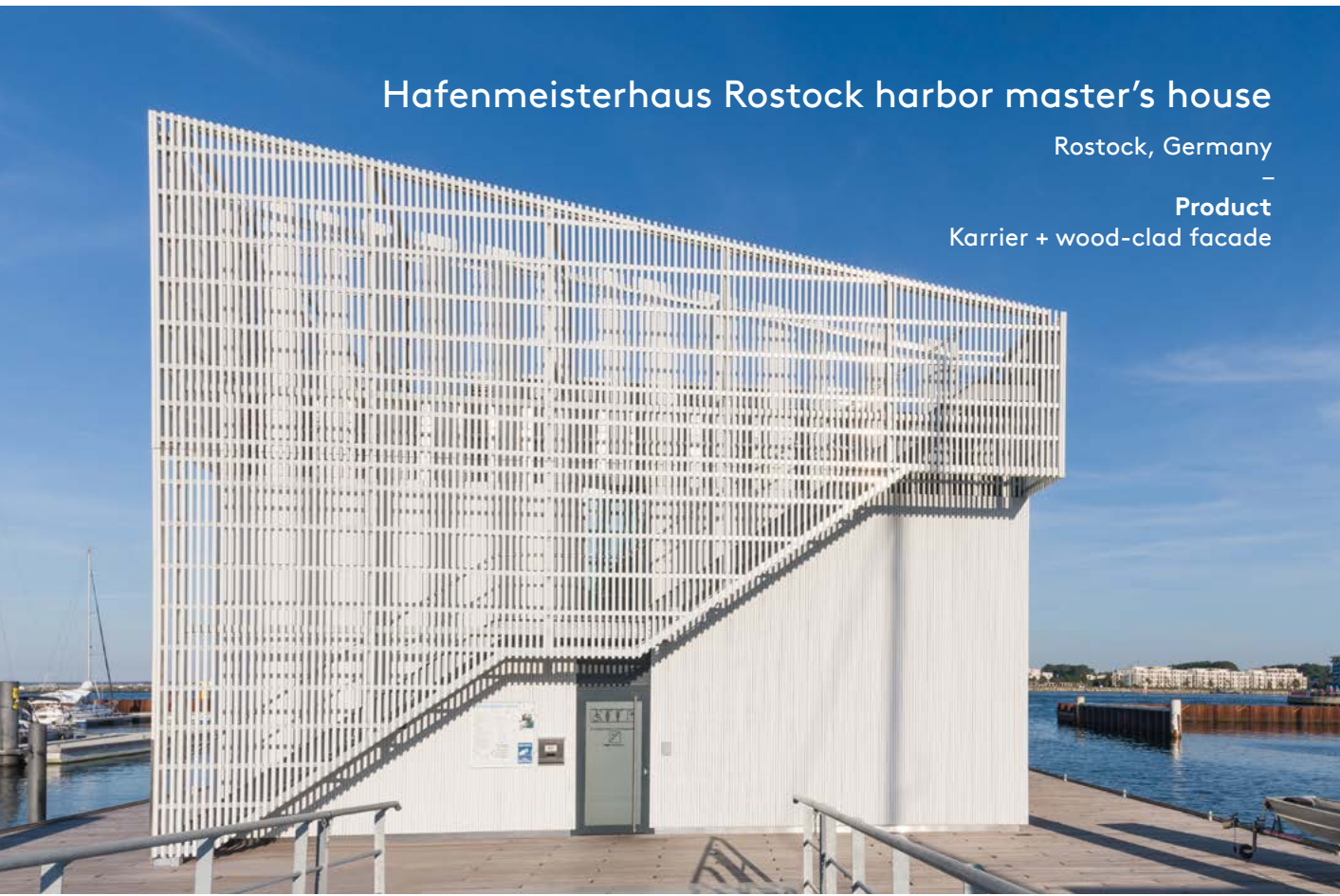
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Product
Karrier + HPL



Hafenmeisterhaus Rostock harbor master's house

Rostock, Germany

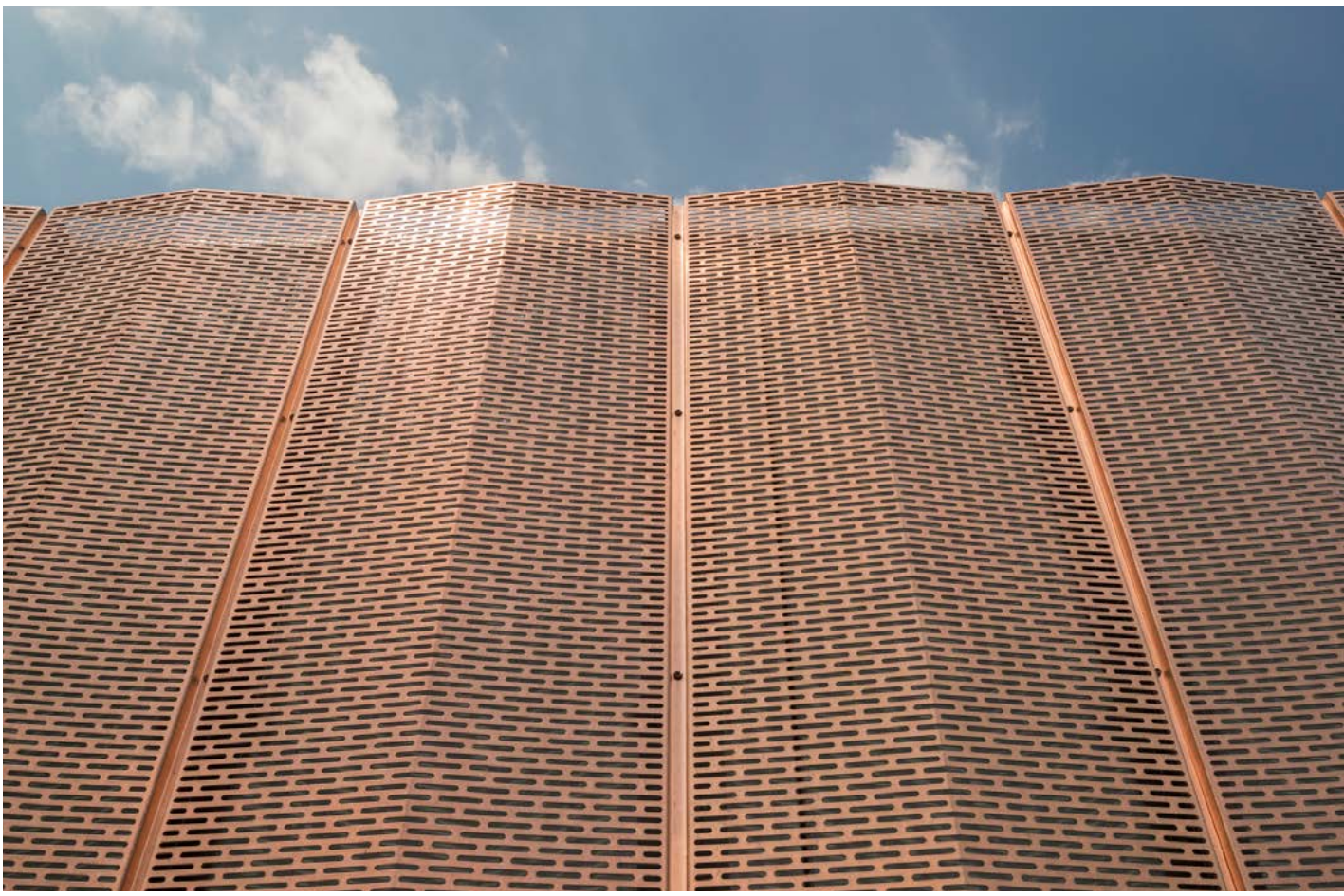
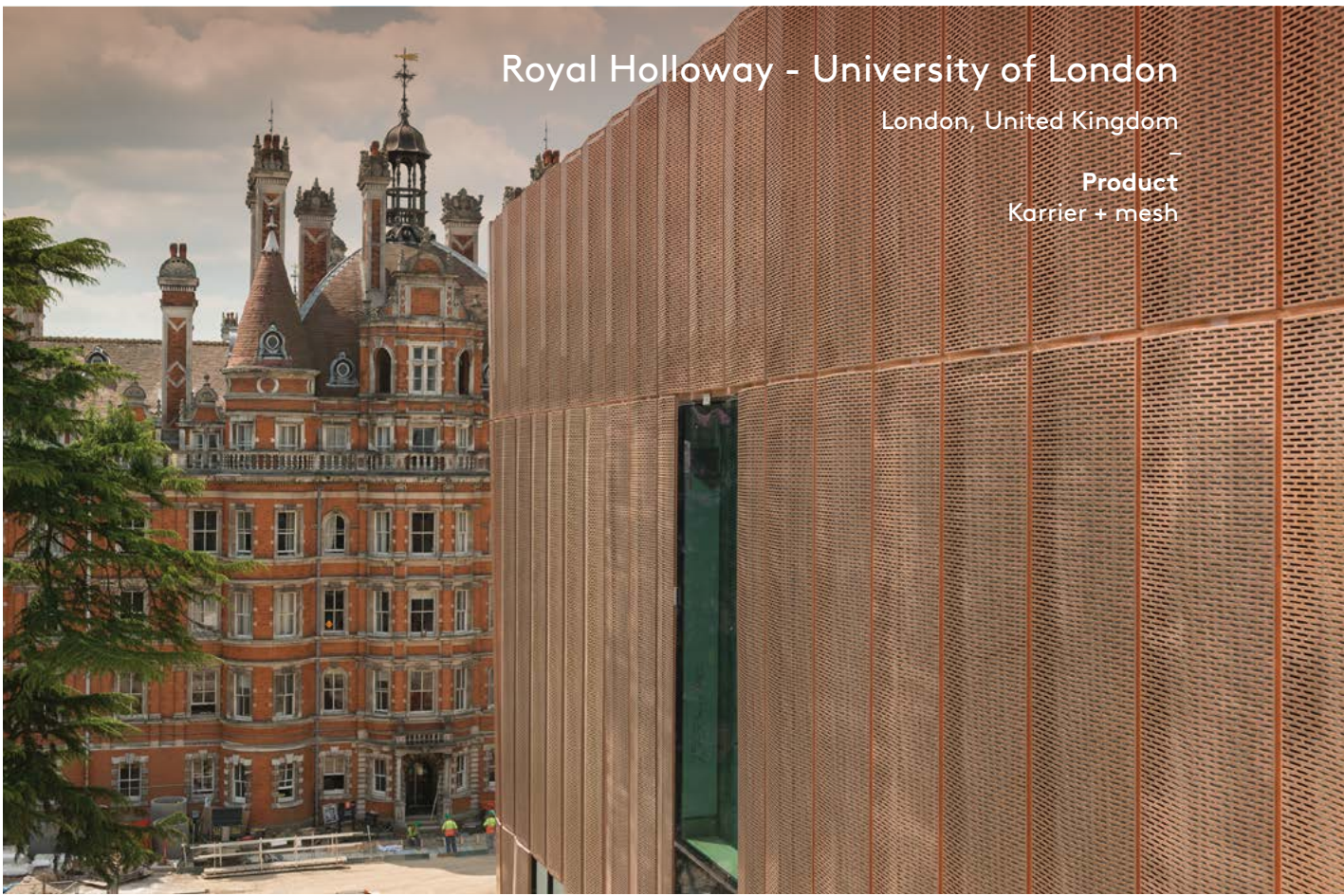
Product
Karrier + wood-clad facade



Royal Holloway - University of London

London, United Kingdom

Product
Karrier + mesh





Bühler + Wehling Planung GmbH & Co. KG office
Gaggenau, Germany
Product
Karrier



Avon and Somerset - Police and Fire Headquarters

Portishead, United Kingdom

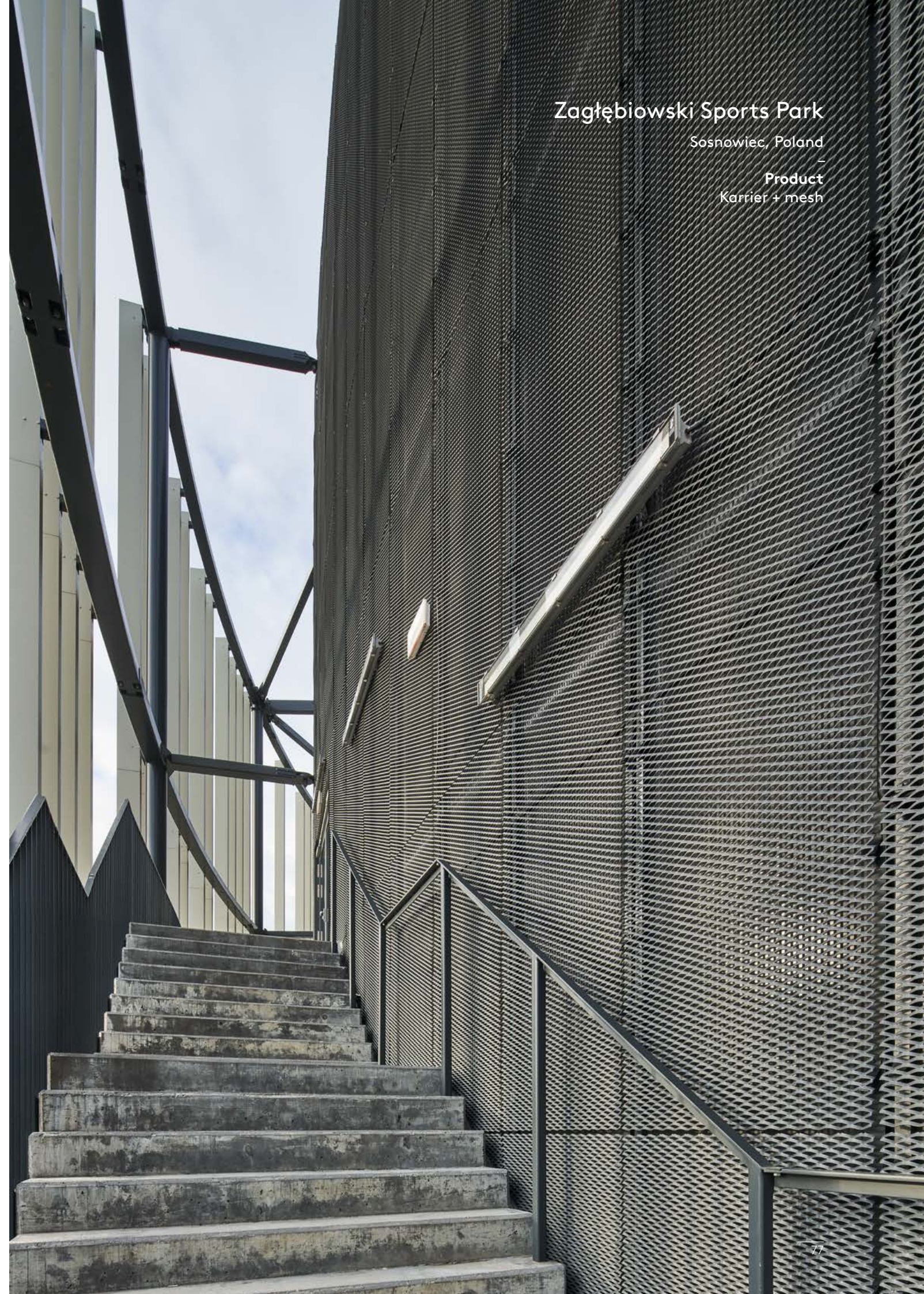
—
Product
Karrier + ceramic granite



Karrier system
Architectural Facade Systems







Zagłębiowski Sports Park
Sosnowiec, Poland
Product
Karrier + mesh

Technopolis business park

Vilnius, Lithuania

Product
Karrier + ceramic tiles



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