



THE
BUILDING
AGENCY
Integrated Enclosure Systems

ENCLOSURE™

Sheathing & Anchoring Systems





Sheathing and Anchoring Systems

Contents

ENCLOSURE™ Philosophy	2
ENCLOSURE™ Sheathing Systems	14
ENCLOSURE™ Anchoring Systems	16
Discreet-Fixed Systems for fabricated ACM panels	
ENCLOSURE™ A&B Anchoring System	18
ENCLOSURE™ Open Joint Anchoring System	22
Visible-Fixed Systems for flat facade panels	
ENCLOSURE™ T50 System	26
ENCLOSURE™ Top Hat System	30
Invisible-Fixed Systems for larger facade panels	
ENCLOSURE™ Undercut System	34
Aluminium Rail System for AliClad Aluminium Weatherboards	
The Alpha Rail System	38
Brick Slip System for High Rise Brick Facades	
Barracuda® Brick Slip System	42
SF Fasteners and Isotherm Rods	46



**THE
BUILDING
AGENCY**
Integrated Enclosure Systems

The Science Behind the ENCLOSURE™ Philosophy

Modern buildings are expected to do far more than simply look good. They must manage moisture, control wind pressure, improve thermal efficiency, support durability, and meet increasingly demanding code compliance requirements, all while protecting the long-term health of the building itself.

That's why The Building Agency developed the ENCLOSURE™ Sheathing System as part of a wider “inside-out” design philosophy. Rather than treating the façade as a standalone surface, the system is engineered to work as a complete external wall assembly, where each layer performs a critical role within the overall building envelope.

At the core of this approach is the relationship between the ENCLOSURE™ Sheathing Board and the ENCLOSURE™ Façade Membrane. Together, these components form a vapour-permeable air-seal line, combining the benefits of a rigid air barrier and a water-resistive barrier (WRB). This creates a highly controlled building envelope that manages both air and moisture movement through the wall assembly.

Why does this matter? Because uncontrolled air leakage and trapped moisture are two of the greatest causes of long-term building durability failure.

The ENCLOSURE™ system is designed to stop unwanted air movement and therefore water ingress from entering the structure, while still allowing water vapour to diffuse safely outward. This balance is critical. A building that cannot ventilate and dry by releasing internal moisture risks condensation forming within the wall cavity, leading to mould growth and material deterioration, reduced thermal performance, and long-term structural damage.

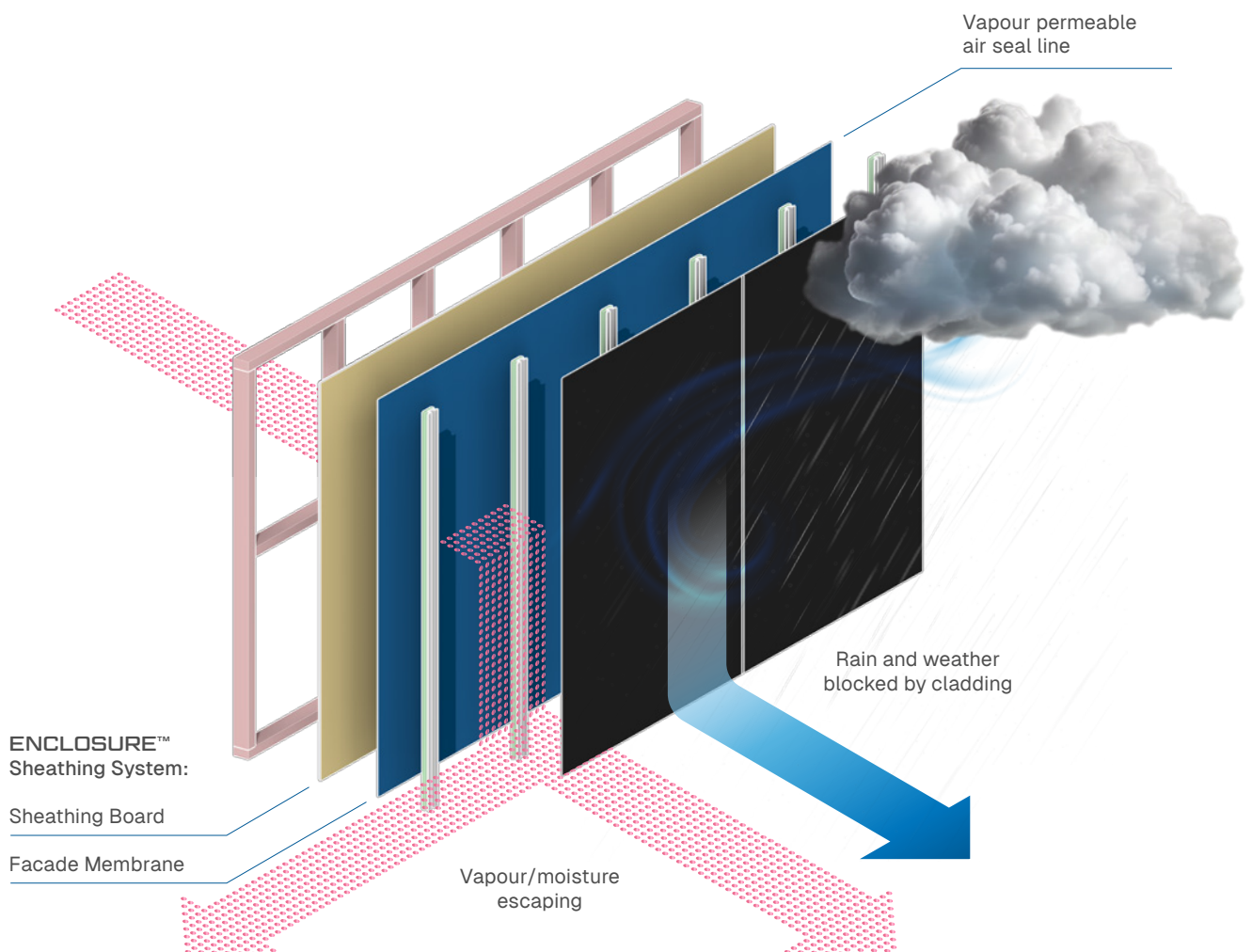
Importantly, “breathability” in building science does not mean air freely flowing through the wall system. It refers to the controlled movement of molecular water vapour through vapour-permeable materials. Water droplets and water vapour behave very differently; water vapour (humidity) particles are significantly smaller than liquid water droplets, which means the system can be engineered to resist external water penetration while still allowing internal moisture vapour to escape.



Both the ENCLOSURE™ Sheathing Board and ENCLOSURE™ Façade Membrane have been selected and tested for vapour permeability to support this outcome. The result is a wall

assembly designed to remain airtight, energy efficient, and weather resistant, while also enabling the building to “dry” correctly over time. Ultimately, this is why the ENCLOSURE™ philosophy starts from the

framing outward. When performance layers are resolved first, before aesthetic finishes are selected, the result is not simply a façade system, but a higher-performing, more resilient and durable building.



Outsulation

Designing for Better Building Performance

As buildings become more thermally efficient and performance expectations continue to increase, designers are rethinking where insulation should be positioned within the wall assembly. Rather than relying solely on insulation installed between framing members, many modern enclosure systems adopt an approach known as outsulation, locating the primary insulation layer outside the structural frame.

The building enclosure is more than a collection of individual products. It is an integrated assembly of materials, components, and systems that separate the internal and external environments while managing heat, air, and moisture. Every layer within the enclosure performs one or more functions, and the overall performance of the building depends on how well these layers work together.

Outsulation builds on this philosophy by positioning the primary thermal layer outside the structural frame, allowing the enclosure to function as one continuous system rather than a series of independent components. This integrated approach is becoming increasingly important as projects seek to achieve higher levels of thermal efficiency, durability and compliance with the evolving performance requirements of the New Zealand Building Code.

Moving the Thermal Layer Outside

In conventional construction, insulation is typically installed between timber or steel framing. While effective to a degree, this approach creates numerous thermal bridges where framing members interrupt the insulation layer. Every stud, nog, lintel, and junction provides a pathway for heat to bypass the insulation, reducing the overall thermal performance of the wall.

Outsulation addresses this challenge by positioning a continuous layer of insulation outside the structural frame. Wrapping the building in uninterrupted insulation significantly reduces thermal bridging and enables the wall assembly to perform much closer to its intended R-value.

Keeping the structural frame within the conditioned envelope also helps maintain more stable internal temperatures, improving occupant comfort while reducing the energy required for heating and cooling throughout the year.



The warmer structural elements are also less susceptible to condensation, helping to protect the building from long-term moisture-related deterioration.

Performance Benefits

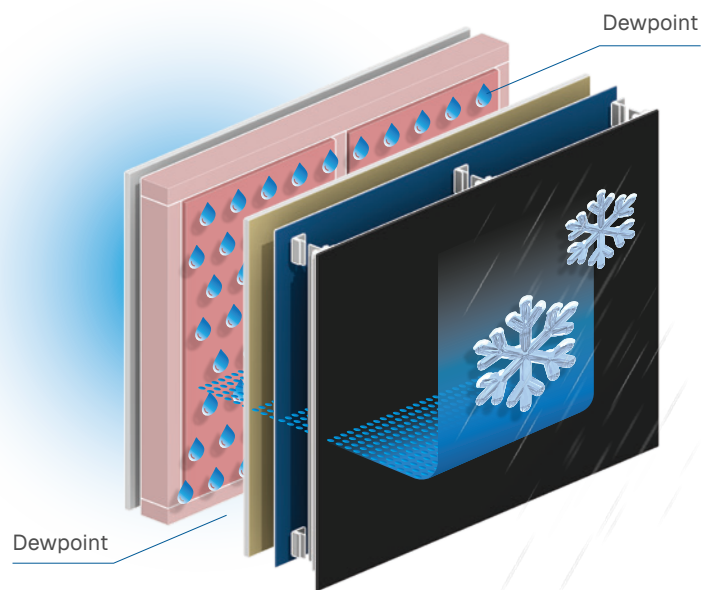
Although improved thermal efficiency is often the primary reason for adopting an insulation strategy, the benefits extend well beyond reducing energy consumption.

Positioning the insulation externally shifts the dew point towards the outside of the wall assembly, helping to keep the structural framing warmer and reducing the likelihood of condensation forming within the wall cavity. This contributes to the long-term durability of the structure while reducing the potential for moisture-related deterioration.

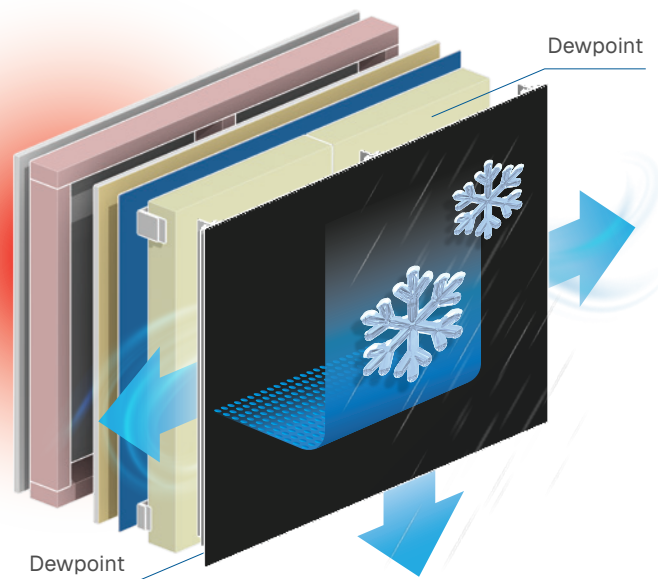
Continuous external insulation also supports improved airtightness. By reducing uncontrolled air leakage, buildings require less energy to heat and cool while providing more stable indoor temperatures and greater occupant comfort.

As buildings become more airtight through improved enclosure design, mechanical ventilation also becomes increasingly important. Controlled ventilation systems maintain indoor air quality

Traditional Framing Insulation



ENCLOSURE™ Stonewool Insulation



while preserving the thermal efficiency delivered by a high-performing enclosure.

Outsulation also complements ventilated rainscreen façade systems. By positioning the drainage cavity outside the continuous insulation layer, rainscreen façades are able to effectively manage incidental moisture while maintaining the integrity of the thermal envelope. This creates a robust enclosure capable of managing heat, air and moisture simultaneously.

The Three Primary Control Layers

A high-performing building enclosure relies on three primary control layers working together as one integrated system. Rather than functioning independently, each layer contributes to the overall performance of the enclosure by managing water, air, vapour and heat.

Water Control

The external weather-resistive cladding provides the building's first line of defence against the elements. It deflects rain, manages incidental moisture and directs water safely away from the structure, helping maintain the long-term durability of the enclosure while protecting internal building components.

Rather than simply preventing water entry, effective enclosure design recognises that moisture management is essential. Any incidental moisture that enters the assembly must be able to drain and dry without compromising the long-term performance of the wall.

Air & Vapour Control

A continuous air and vapour control layer manages both uncontrolled air leakage and the movement of water vapour through the wall assembly. Uncontrolled air leakage can significantly reduce thermal performance while transporting moisture into the building assembly, increasing the risk of condensation and mold growth

By limiting unwanted air movement while allowing the wall assembly to dry where appropriate, this layer improves energy efficiency, reduces the risk of condensation and supports the long-term durability of the enclosure.

In many modern enclosure systems, individual components perform multiple functions. A weather-resistive barrier, for example the **ENCLOSURE™** Facade membrane, provides air control and vapour management, reducing the number of separate layers required while improving continuity throughout the enclosure.



Thermal Control

Continuous external outsulation forms the thermal control layer, creating an uninterrupted thermal envelope around the structure. By minimising thermal bridging, it improves overall thermal performance, promotes more consistent internal temperatures and enhances occupant comfort throughout the seasons.

Maintaining continuity within this layer is critical. The insulation should remain uninterrupted across walls, corners, window openings, floor junctions and roof interfaces wherever possible to maximise the performance of the enclosure.

When these three control layers remain continuous across the entire building, they work together to create a more efficient, durable and resilient enclosure.

Designing as an Integrated ENCLOSURE™ System

The success of an outsulation strategy relies on continuity and coordination. Every control layer must remain uninterrupted across walls, roofs, floor junctions, windows, doors and service penetrations. Poorly detailed transitions or discontinuous control layers can compromise the performance of the entire enclosure.

Achieving this level of performance requires more than selecting the right products. Successful outsulation depends on early collaboration between architects, façade designers, structural engineers, building services consultants and contractors to ensure each layer performs its intended function without conflict.

By considering the weather-resistive barrier, air and vapour control layer, thermal insulation, façade support system and external cladding as a coordinated assembly, designers can achieve more predictable building performance while simplifying compliance with increasingly demanding thermal and moisture management requirements.

Why Outsulation Matters

Outsulation reflects a shift from specifying individual products to designing complete enclosure systems. Rather than viewing insulation, membranes, façade systems and structural elements as separate components, they are considered together as an integrated assembly that manages heat, air and moisture throughout the life of the building.

This philosophy aligns closely with The Building Agency's integrated enclosure approach, where every component is selected and detailed to contribute to the overall performance of the wall assembly.

As building performance expectations continue to evolve, specifying integrated enclosure systems that incorporate continuous external insulation provides architects and designers with a proven strategy for improving thermal efficiency, reducing condensation risk, supporting façade performance and delivering buildings that perform as intended, not only at completion, but throughout their service life.



**THE
BUILDING
AGENCY**
Integrated Enclosure Systems

Why Building Movement Matters

Designing for Performance, Not Just Appearance

Every building moves.

While movement is often unnoticeable, it is a fundamental consideration in modern building design. Wind loading, seismic activity, thermal expansion and contraction, material shrinkage, structural loading, and long-term material behaviour all contribute to movement throughout a building's lifespan. If this movement is not properly accommodated, it can place significant stress on the façade system, leading to cracking, water ingress, air leakage, panel damage, reduced durability, and costly maintenance.

Managing building movement is therefore not simply a structural consideration, it is essential to the long-term performance of the entire building enclosure.

Understanding Interstorey Movement

Interstorey movement is the relative movement that occurs between adjacent floors within a building. As multi-storey buildings respond to environmental and structural forces, each level can move independently by small amounts.

Movement occurs in both vertical and horizontal directions. Vertical movement is influenced by factors such as line loads, concrete creep, shrinkage, thermal expansion, and floor slab deflection. Horizontal movement is primarily driven by wind loading and seismic activity. Although these movements are often measured in millimetres between floors, they occur simultaneously throughout the life of the building and must be carefully considered when designing façade systems.

The amount of movement a building is expected to experience depends largely on its height and structural design. In New Zealand, low-rise buildings are generally designed in accordance with NZS 3604, while larger and more multi-storey buildings are designed to AS/NZS 1170, where greater structural movement under wind and seismic loading must be accommodated.



Why It Matters

Interstorey movement influences every part of the building enclosure, from the structural frame and façade to membranes, flashings, windows, joints, and weatherproofing details. Every component must be capable of accommodating movement without compromising performance.

If movement is not considered during design, stresses can be transferred directly into the external wall assembly. Over time, this may affect cladding systems, fixings, joints, and weatherproofing elements, increasing maintenance requirements and reducing the service life of the façade.

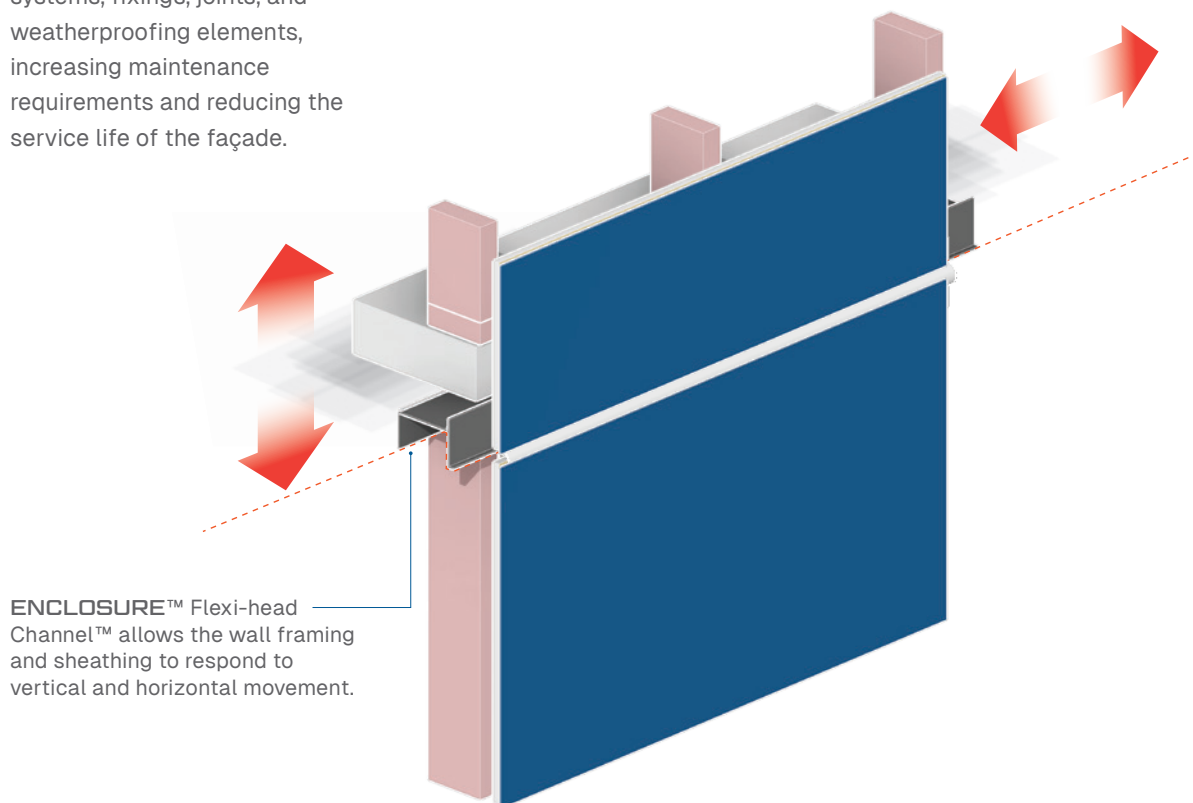
Rather than resisting movement, modern façade systems should be designed to move with the building. Allowing controlled movement within the wall assembly reduces stress on individual components while maintaining structural performance, durability, and weathertightness throughout the building's life.

Supporting Building Code Compliance

In New Zealand, the design of structures and façades must comply with the requirements of

the New Zealand Building Code to accommodate the building's allowable structural movement, supporting compliance with NZBC Clause B1 Structure, NZBC Clause B2 Durability, and NZBC Clause E2 External Moisture.

Rather than resisting movement, the **ENCLOSURE™ Flexi-head Channel™** is designed to work with the building as it responds to the forces it experiences throughout its service life.



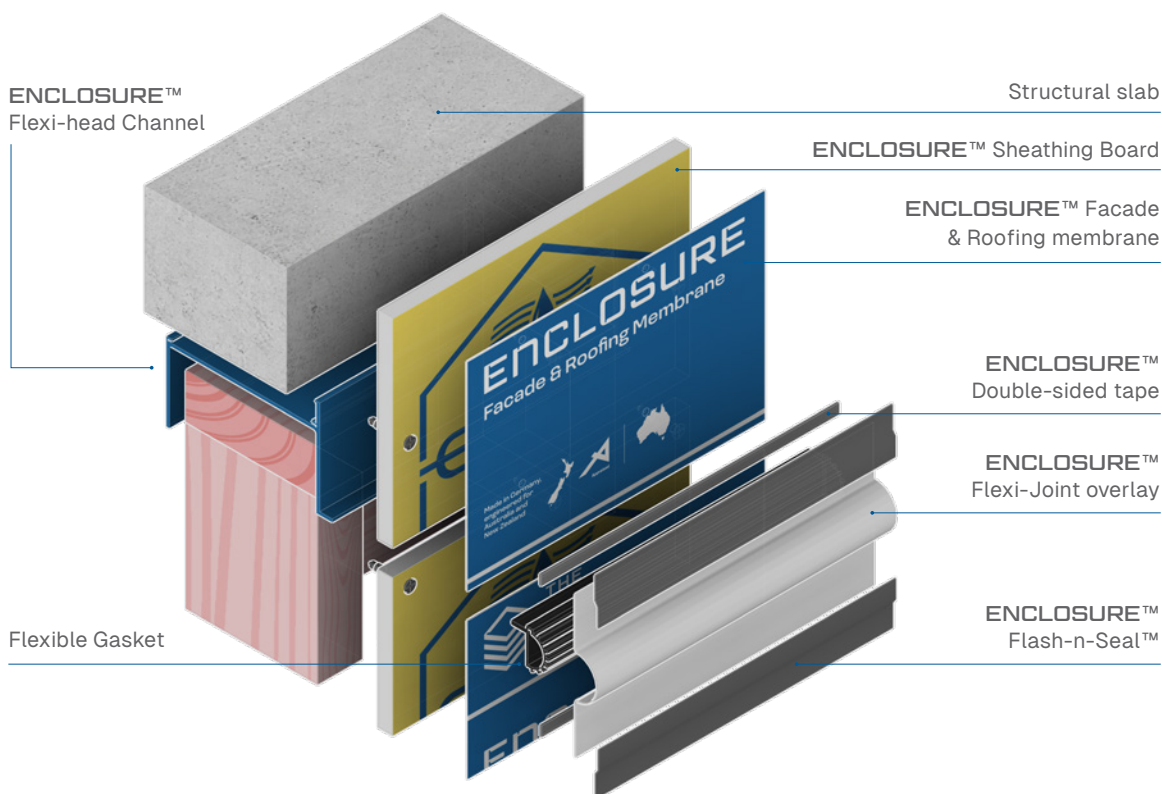
ENCLOSURE™ Flexi-head Channel™ allows the wall framing and sheathing to respond to vertical and horizontal movement.

Coordinating Movement Across the Wall Assembly

Accommodating interstorey movement requires more than a single movement joint or isolated component. The movement strategy must be coordinated across the entire external wall assembly so that the framing, sheathing, membrane, cavity, firestopping, support system, and façade can respond together without placing unintended stress on adjacent materials.

The ENCLOSURE™ Sheathing System incorporates both horizontal and vertical movement joints. Horizontal movement joints usually sit at interstorey levels. They accommodate the natural movement occurring between the floor slab and the wall framing. Vertical movement joints are required at specified façade locations, including building corners, changes in substrate, and areas where different wall modules or structural zones meet.

Together, these joints divide the façade into controlled sections that can respond independently to building movement. This minimises movement transfer across large areas of sheathing or cladding. Unchecked, this accumulated stress can cause cracking, joint failure, board damage, or compromised weathertightness.





Horizontal Interstorey Movement

At each floor level, the wall assembly must accommodate relative movement between the floor slab, framing, and façade system. The **ENCLOSURE™** Flexi-head Channel™ creates a defined movement zone adjacent to the slab edge, allowing the wall framing and sheathing to respond to vertical and horizontal movement while maintaining support and alignment.

The channel is positioned so that the sheathing board can be fixed and supported without fixings passing through the designated movement zone. This is critical because rigidly connecting components across the joint could restrict movement and transfer structural forces into the wall assembly.

The engineered profile also provides support for the deadload of the sheathing board at the floor edge. By separating deadload support from the movement function, the system can maintain the position of the sheathing while still allowing the building to move as designed.

Vertical Movement Joints

Vertical movement joints allow adjacent wall sections to move independently. These joints are important where façade modules intersect, at building corners, and where movement may occur in more than one direction.

At external corners, the joint arrangement must allow movement along both wall faces. Rigid connections lock walls together, which concentrates stress exactly where the corner meets. The **ENCLOSURE™** approach uses coordinated vertical joints and corner modules to retain continuity while allowing each façade plane to respond to movement independently.

Vertical joints must continue through the relevant layers of the wall assembly. Jointing the external cladding is not enough if the sheathing, membrane, or framing remains rigidly connected behind it. Each layer must be detailed to maintain the designed movement capacity of the complete system.

Membrane Continuity at Movement Joints

The façade membrane must remain continuous across movement zones while also allowing the required range of movement. This requires carefully detailed laps, flexible transitions, and compatible sealing components.

Horizontal membrane laps should be arranged so that water continues to drain outward and downward through the assembly. At vertical joints, membrane transitions must maintain the continuity of the air and moisture control layers without creating a rigid bridge across the movement zone.

The membrane should not be tightly stretched across a joint, as this may restrict movement or place the membrane under repeated stress. Instead, sufficient allowance must be incorporated so the membrane can flex as the adjoining wall sections move. Maintaining this continuity is essential because movement joints remain part of the building's primary weatherproofing line.

Firestopping and Cavity Coordination

At interstorey locations, the movement joint must also be coordinated with cavity firestopping requirements. Firestop products must maintain the required fire performance while allowing the anticipated structural movement to occur.

The cavity barrier, **ENCLOSURE™** Flexi-head Channel™, sheathing board, membrane, and façade support system must therefore be considered together. One component should not obstruct the movement capacity or performance of another.

The **ENCLOSURE™** Flexi-head Channel™ provides a defined interface between the slab edge, cavity, firestop, and sheathing system. Its configuration supports the sheathing while preserving the required movement zone and helping maintain the continuity of the enclosure at each floor level.

Movement Must Continue Through the Façade

The movement allowance established within the framing and sheathing system must also be carried through the external façade. Cladding panels, rails, brackets, flashings, sealants, and façade joints must all align with the movement strategy behind them.

Where a movement joint is required in the substrate, the external cladding should generally include a corresponding joint or detail that permits movement. Bridging a structural or sheathing movement joint with a rigid panel, flashing, rail, or fixing can transfer movement into the façade and undermine the purpose of the joint.

For this reason, movement detailing should be developed as part of the complete façade design rather than added after the cladding layout has been established.

A Coordinated Detailing Strategy

The new **ENCLOSURE™** movement detail illustrates how horizontal and vertical joints work together across multiple levels and elevations of a building. It demonstrates that movement management is not limited to a single component at the slab edge. It is a coordinated strategy that continues through corners, façade modules, membrane junctions, sheathing interfaces, firestopping zones, and external cladding joints.

By designing these interfaces as part of one integrated enclosure system, the building can accommodate its allowable movement while maintaining structural support, air and moisture control, fire performance, façade alignment, and long-term durability.

Modern façade systems should not attempt to prevent building movement. They should provide clearly defined, controlled pathways that allow the wall assembly to move with the structure throughout the building's service life.



The ENCLOSURE™ Approach

This philosophy is what led The Building Agency to develop the ENCLOSURE™ Flexi-head Channel™. Rather than treating movement as an isolated detail, the ENCLOSURE™ Flexi-head Channel™ has been engineered as part of the integrated ENCLOSURE™ Sheathing and Anchoring Systems. Working together, these components allow the external wall assembly to accommodate the building's allowable movement while maintaining the integrity of the façade. The ENCLOSURE™ Flexi-head Channel™ enables controlled movement within the wall assembly, reducing the transfer of stress into the façade system and helping maintain alignment, weatherproofing, and long-term durability. The ENCLOSURE™ Flexi-head Channel™ is manufactured from powder-coated structural aluminium, selected for its long-term durability and performance within the wall assembly. Positioned at the top of the ventilated cavity and adjacent to the concrete floor slab, this area may be exposed to condensation as warm, moisture-laden air from

the interior comes into contact with cooler structural elements. The use of structural aluminium provides a durable solution suited to these environmental conditions.

The extruded aluminium profile also delivers important installation benefits. Its engineered geometry incorporates dedicated fixing and deadload support legs, allowing the sheathing board to be securely fixed from the floor above while remaining outside the allowable movement zone at the slab edge. This improves buildability, simplifies installation, and ensures the wall assembly can continue to accommodate interstorey movement as intended.

A Complete Building ENCLOSURE™ Philosophy

At The Building Agency, we believe high-performing façades begin long before the external finish is selected.

The ENCLOSURE™ philosophy focuses on designing the building enclosure from the framing outward, ensuring every component works together as an integrated system. From the Sheathing Board and Façade Membrane to the deflection-head channel and façade rainscreen systems, each layer plays a critical role in managing air, moisture, thermal performance, and structural movement.

By considering building movement as part of the complete wall assembly, architects and designers can specify systems that not only meet today's performance requirements but continue to protect the building for decades to come. The result is more than a façade system, it is a resilient, high-performing building enclosure engineered for long-term performance.

ENCLOSURE™ Sheathing System

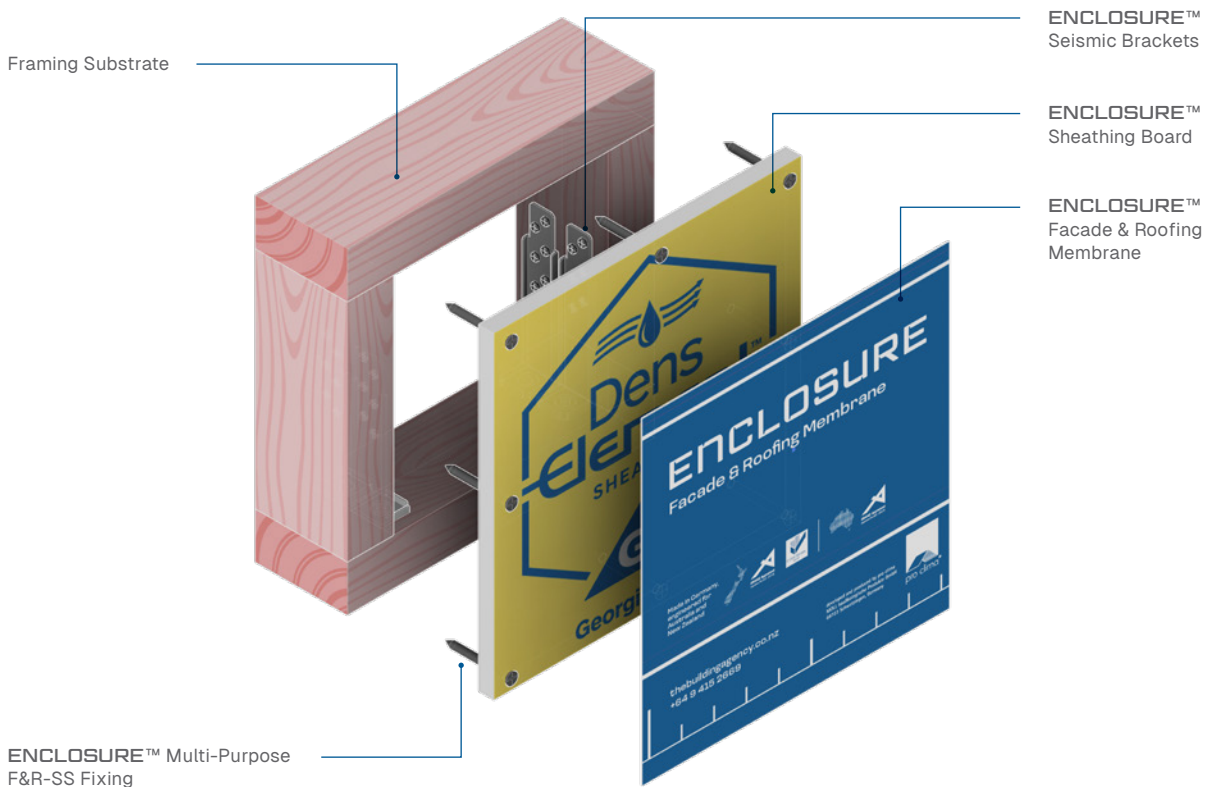
Product Overview

ENCLOSURE™ Sheathing System is a rigid weathertightness and structural bracing system comprising glass-mat gypsum sheathing with a vapour-permeable, self-adhered weather/air-resistive membrane.

When installed to framing as a continuous substrate and detailed in accordance with this literature, the assembly forms a continuous Rigid Wall Underlay

providing airtightness, a secondary line of weather defence behind cladding, and temporary weather protection during construction.

ENCLOSURE™ Sheathing System may be used in bracing and fire-rated wall systems when designed and installed in accordance with the published bracing values, fire classifications, and details in this document.





Product Benefits



Minimises uncontrolled air movement within the wall cavity, which improves external wall thermal performance.



Forms a rigid structural bracing element when installed as a tested bracing system.



Acts as a secondary line of weather defence behind the cladding.



Reduces building time.



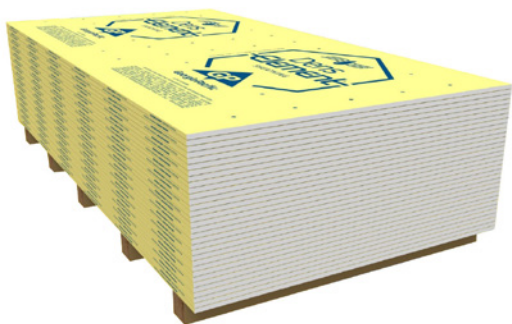
Offers protection from the elements prior to installing the rainscreen cladding.



Simple and easy to install.



Enables fire-rated wall assemblies.



Product Specification

ENCLOSURE™ Sheathing System is formed using ENCLOSURE™ Sheathing Board and ENCLOSURE™ Facade & Roofing Membrane, with a total thickness of 16.6mm.

PRODUCT	WIDTH (M)	LENGTH (M)	WEIGHT (KG/M ²)
ENCLOSURE™ Sheathing Board (15.9mm)	1.2	2.4 3.0	12
ENCLOSURE™ Facade & Roofing Membrane (0.7mm)	1.5	30	0.24



ENCLOSURE™ Rainscreen Anchoring Systems

Structural anchoring systems are a critical component of façade design, providing the structural connection between the cladding system and the primary building structure. The New Zealand Building Code outlines the performance requirements of anchoring systems to safely transfer wind, seismic, and dead loads while maintaining the integrity and stability of the façade throughout its service life.

A well-designed anchoring system accommodates building movement, thermal expansion, and environmental exposure, reducing the risk of failure, water ingress, and durability issues. The Building Agency offers a range of bracket and rail solutions tailored to different façade systems, project requirements, and architectural outcomes.

Discreet-Fixed Systems for fabricated ACM panels

A&B

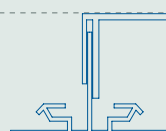


Open Joint



Visible-Fixed Systems for flat facade panels

T50

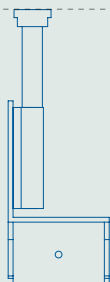


Top Hat



Invisible-Fixed Systems for larger facade panels

Undercut



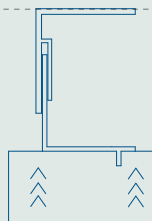
Aluminium Rail System for AliClad Aluminium Weatherboards

Alpha Rail



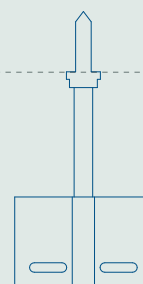
Brick Slip System for High Rise Brick Facades

**Barracuda®
Brick Slip**



SF Screw and Isotherm Rods

Fasteners





Product Benefits



Anchoring systems provide the critical connection between the façade and the primary building structure, ensuring loads are safely transferred while maintaining long-term façade performance.



A well-designed anchoring system helps protect against movement-related issues, water ingress, and premature façade deterioration, supporting the overall performance of the external wall assembly.



Designed to accommodate wind loads, seismic movement, thermal expansion, and environmental exposure, they play an essential role in the stability and durability of the building enclosure.



The Building Agency offers a range of bracket and rail solutions tailored to different façade rainscreen systems, project requirements, and architectural outcomes.





A&B Anchoring System™

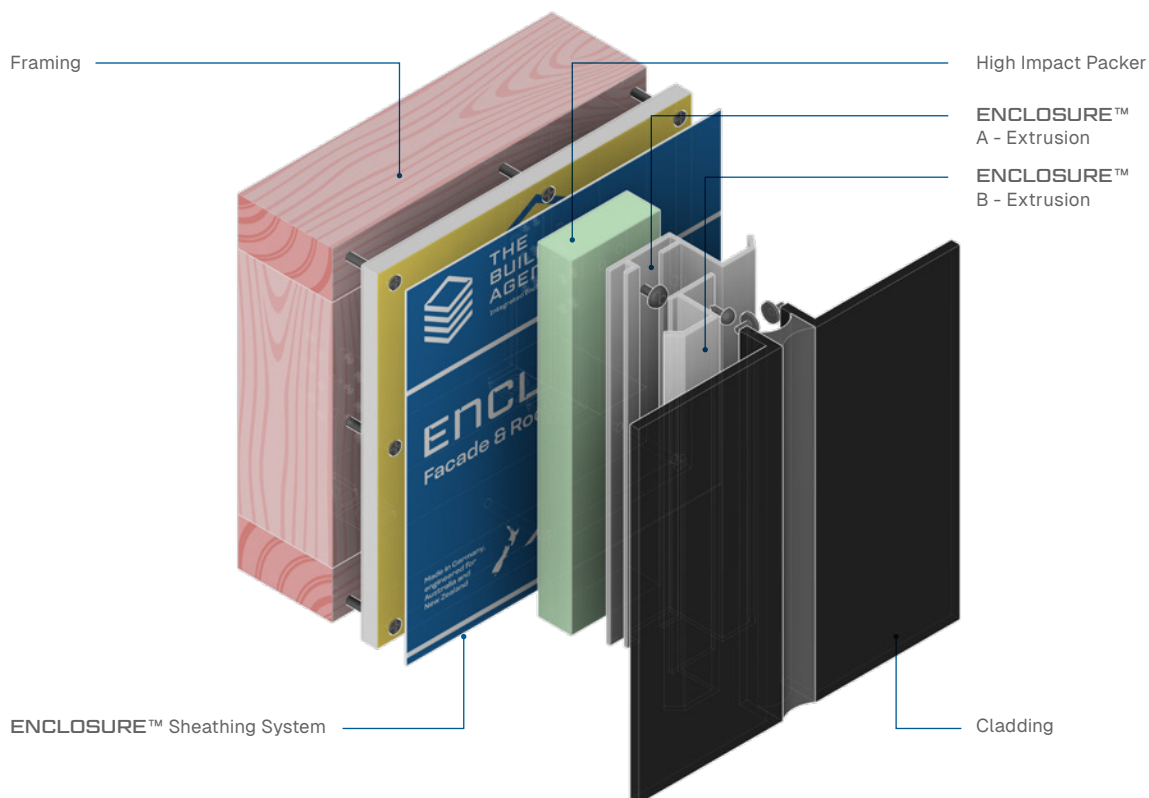
Discreet-Fixed Systems for fabricated ACM panels



Product Overview

The ENCLOSURE™ A&B Anchoring System is an engineered aluminium anchoring solution designed for the installation of ALPOLIC™ fr (ACP) façade panels. The system comprises two extruded aluminium components. ENCLOSURE™ A is fixed to the structural framing over packers, while ENCLOSURE™ B is secured to the primary extrusion, creating a robust support framework for the façade. Formed ALPOLIC™ fr panels are then fixed directly to the extrusions.

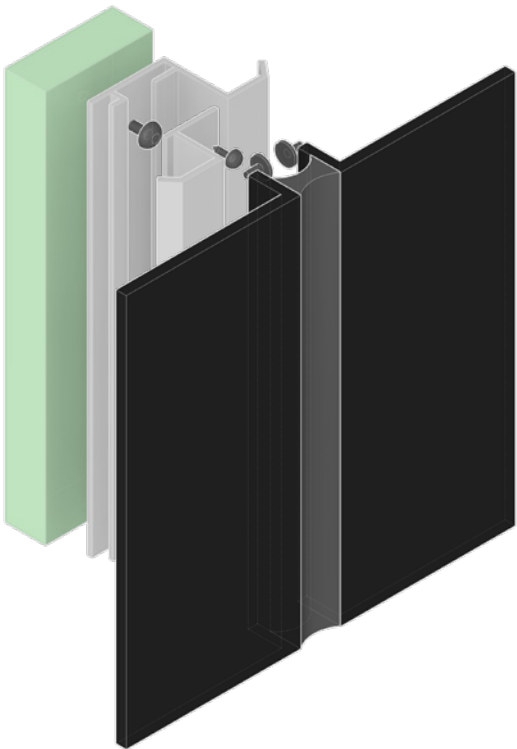
Designed for strength, durability, and installation efficiency, the A&B Anchoring System provides reliable support for a wide range of façade applications and can be used in projects with design wind pressures of up to 3.6kPa (ULS). For added confidence in specification and compliance, ALPOLIC™ fr installed on the ENCLOSURE™ A&B Anchoring System is covered under BRANZ Appraisal No. 528 (2024).





Product Benefits

- ✓ A purpose-designed aluminium support system developed for the installation of ALPOLIC™ fr aluminium composite façade panels.
- ✓ Two-part extrusion design creates a robust support framework that enables accurate panel alignment, efficient installation, and long-term façade performance.
- ✓ Engineered for New Zealand conditions, the system provides reliable structural support while accommodating the movement and tolerances required in modern façade construction.
- ✓ Suitable for projects with design wind pressures up to 3.6kPa (ULS), the system is supported by BRANZ Appraisal No. 528, providing confidence in specification and compliance.



Product Specification

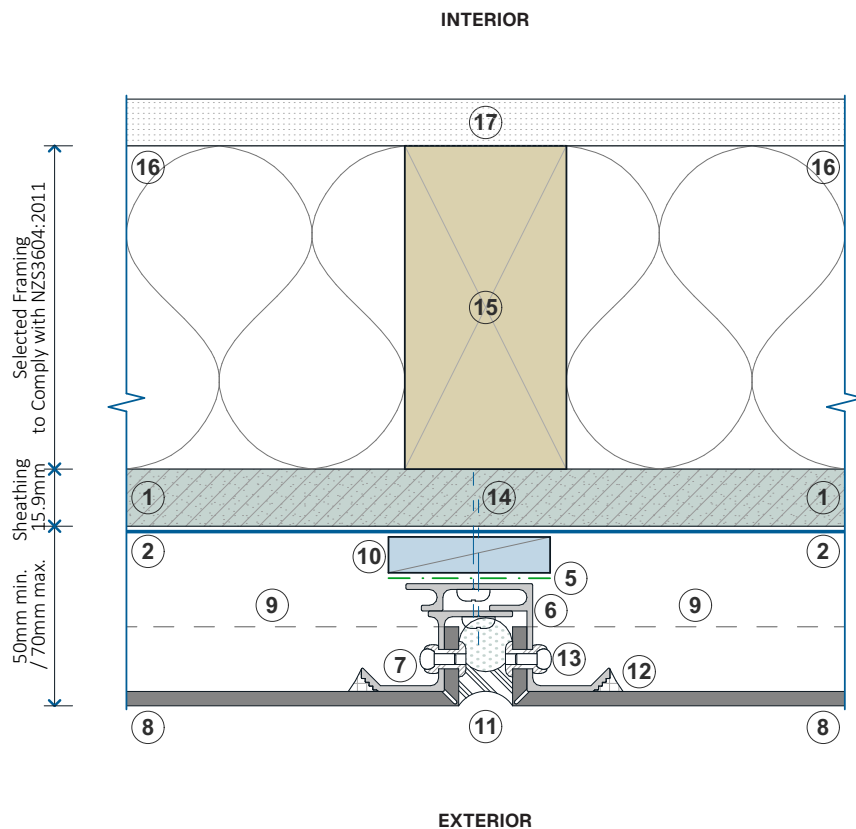
ANCHORING SYSTEM	MATERIAL	CLADDING TYPE	WIND LOAD	MIN. CAVITY DEPTH	COMPLIANCE
A&B Anchoring System	Extruded aluminium + stainless steel components	ALPOLIC™ fr	Up to 3.6kPa (ULS)	40mm	BRANZ Appraisal #528

- ✓ Timber framing to be at 600 mm centres for both studs and nogs
- ✓ ENCLOSURE™ Sheathing System must be used as backing for the cavity if exposed to wind exceeding 1.55 kPa ULS.
- ✓ Cavity battens are not required with the A&B Anchoring System as a cavity is formed between the fixing angles and structure with high impact plastic packers (“H” packers) to accommodate construction tolerances.



ENCLOSURE™ A&B Anchoring System

A&B Anchoring – Vertical Sheet Joint Typical Detail



1 ENCLOSURE™ Sheathing Board

2 ENCLOSURE™ Façade & Roofing Membrane

3 ENCLOSURE™ Multi-Purpose F & R - SS Fixing

4 ENCLOSURE™ Seal-a-Sill™

5 ENCLOSURE™ Flash-n-Seal™

6 ENCLOSURE™ A - Extrusion

7 ENCLOSURE™ B - Extrusion

8 Alpolic™ fr Rainscreen Panels

9 Cavity

10 High Impact Construction Tolerance Packer

11 Silicone Sealant on PEF Rod

12 Silicone Sealant

13 Rivet Fixing

14 Screw Fixing

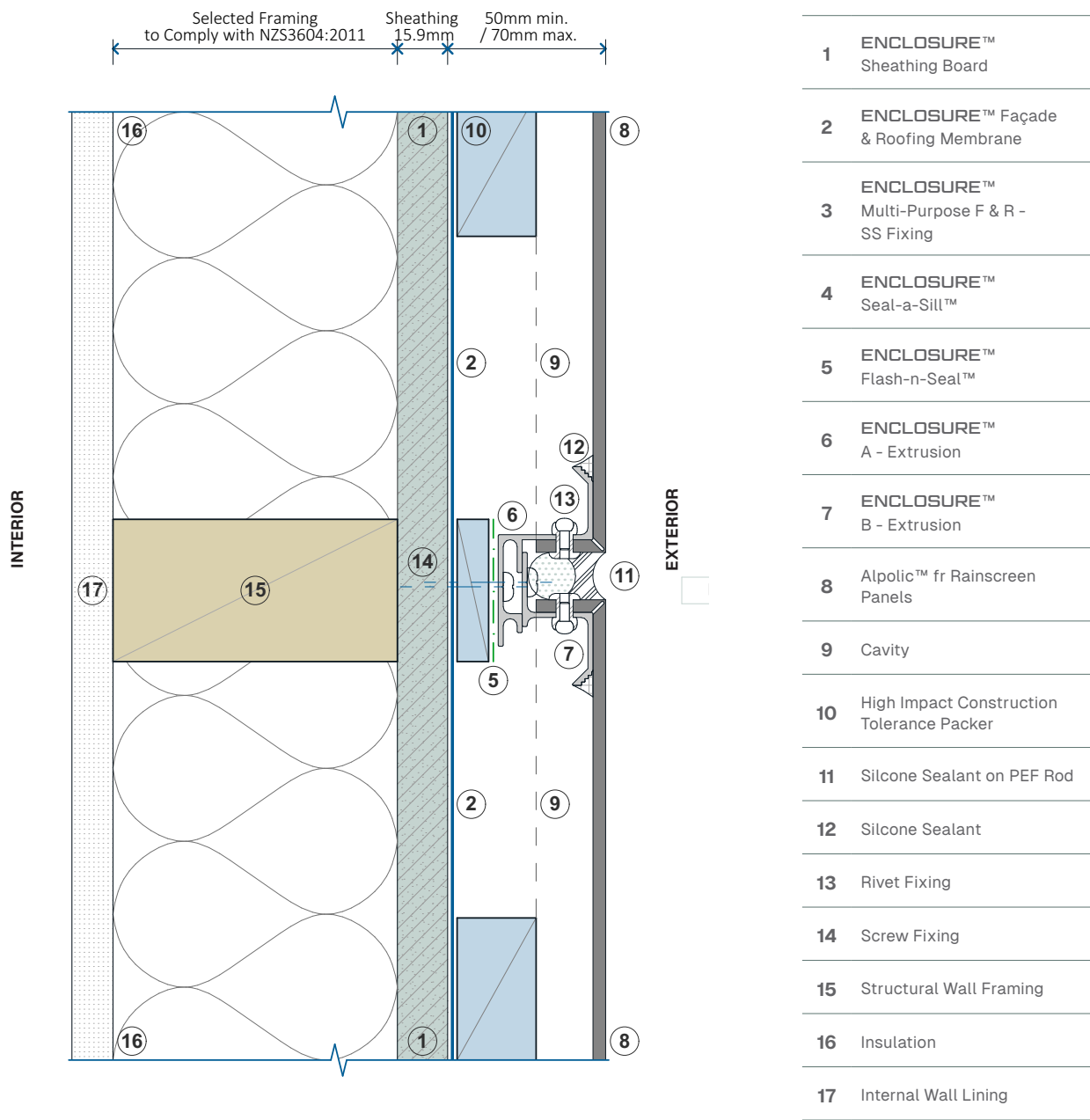
15 Structural Wall Framing

16 Insulation

17 Internal Wall Lining



A&B Anchoring – Horizontal Sheet Joint Typical Detail





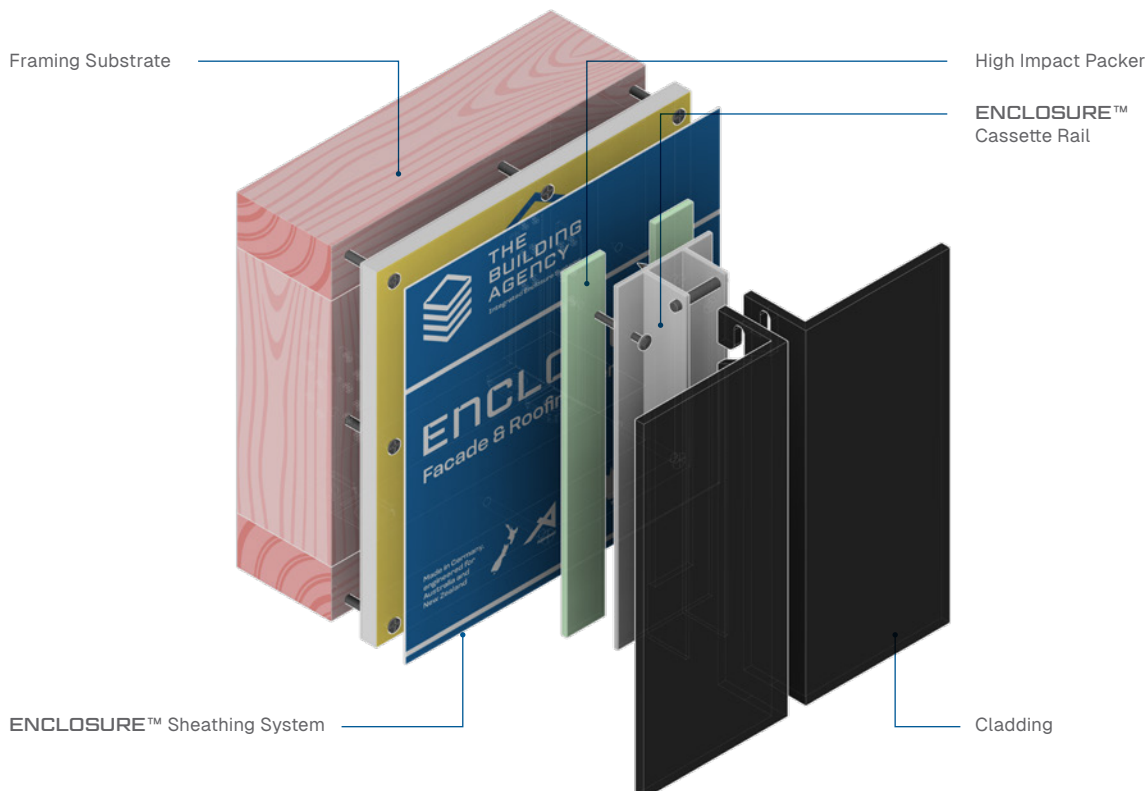
Open Joint (or Hook & Pin) Anchoring System

Discreet-Fixed Systems for fabricated ACM panels

Product Overview

The ENCLOSURE™ Open Joint (or Hook & Pin) System is a concealed mechanical fixing system designed for the installation of aluminium composite (ACM) façade panels, which delivers clean architectural lines without visible face fixings. Using hooks cut into the ACM panels and stainless-steel pins, the system creates a secure and adjustable attachment to the supporting structure.

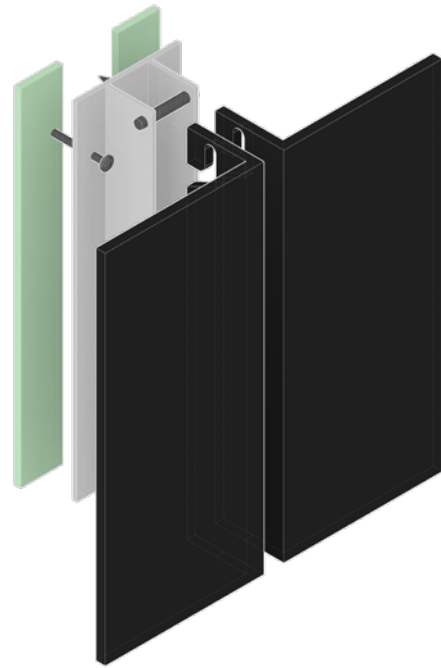
Designed for efficient installation, accurate panel alignment, and long-term serviceability. Individual panels can be removed and replaced when maintenance or future access is required. The system is designed to accommodate thermal movement and façade tolerances, helping deliver a durable, robust, high-performing façade solution that supports compliance with New Zealand Building Code requirements for structure, durability, and external moisture performance.





Product Benefits

- ✓ The Open Joint System is a concealed mechanical fixing solution that delivers clean architectural lines without visible face fixings.
- ✓ Using integrated panel hooks and stainless-steel pin connections, the system creates a secure and adjustable attachment to the supporting structure while maintaining precise panel alignment.
- ✓ Designed for efficient installation and long-term serviceability, individual panels can be removed and replaced when maintenance or future access is required.
- ✓ The system accommodates thermal movement and construction tolerances, helping deliver a durable, high-performing façade that supports modern rainscreen design principles.
- ✓ Easy maintenance and replacement.



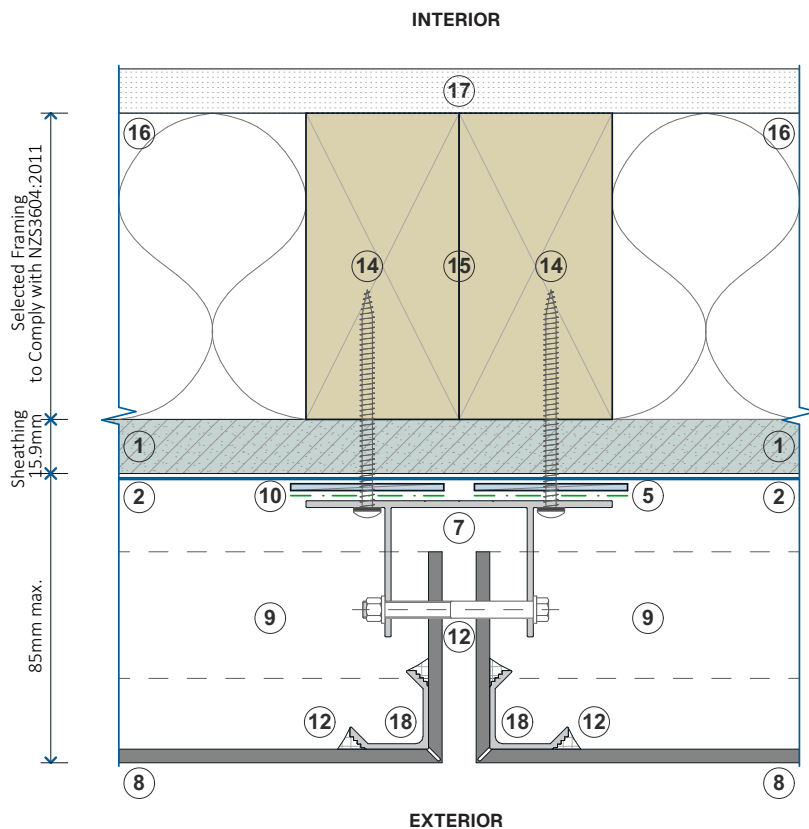
Product Specification

ANCHORING SYSTEM	MATERIAL	CLADDING TYPE	WIND LOAD	MIN. CAVITY DEPTH
Open Joint Anchoring System	Extruded aluminium + stainless steel components	ACM Panels	Up to 2.5 kPa (ULS)	70mm



ENCLOSURE™ Open Joint Anchoring System

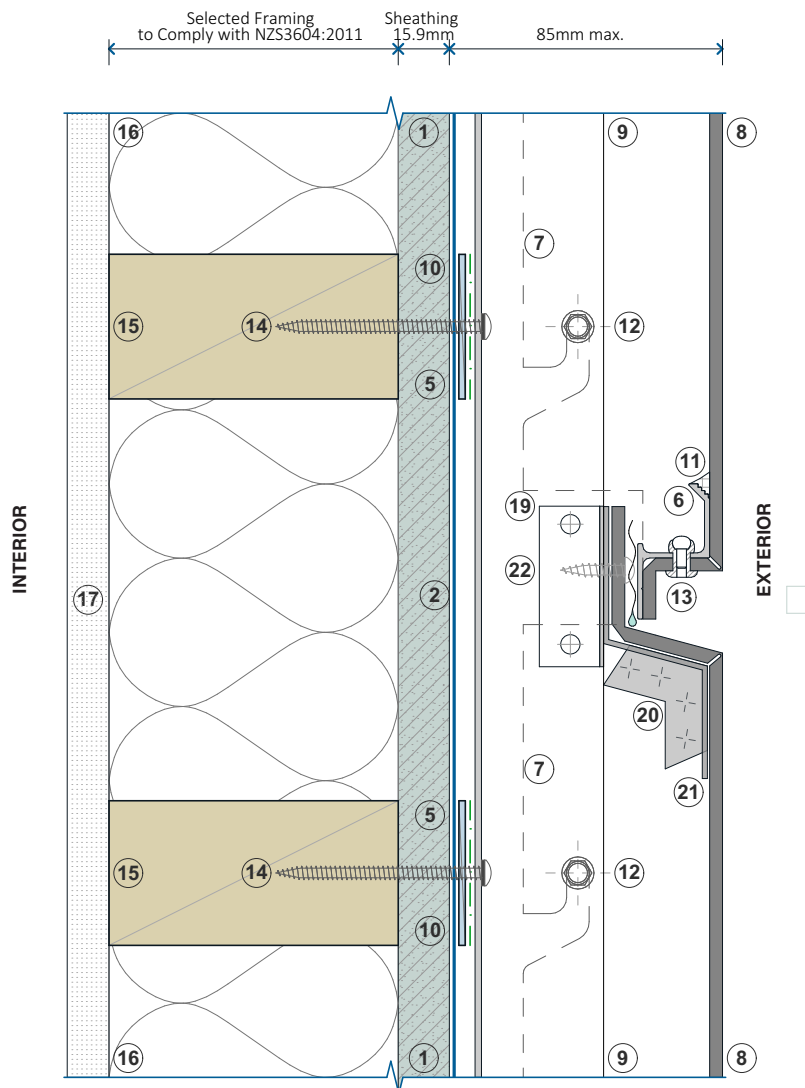
Open Joint Anchoring – Vertical Sheet Joint Typical Detail



1	ENCLOSURE™ Sheathing Board	8	Alpolic™ fr Rainscreen Panels	16	Insulation
2	ENCLOSURE™ Façade & Roofing Membrane	9	Cavity	17	Internal Wall Lining
3	ENCLOSURE™ Multi-Purpose F & R - SS Fixing	10	High Impact Construction Tolerance Packer	18	Corner Panel Reinforcing
4	ENCLOSURE™ Seal-a-Sill™	11	Silicone Sealant	19	Aluminium Fixing Angle
5	ENCLOSURE™ Flash-n-Seal™	12	Steel Pin with End Closers	20	Panel Fold Cleats
6	ENCLOSURE™ A - Extrusion	13	Rivet Fixing	21	Aluminium Corner Support
7	ENCLOSURE™ Cassette Rail	14	316 SS Screw Fixing	22	Screw Fixing
		15	Structural Wall Framing		



Open Joint Anchoring – Horizontal Sheet Joint Typical Detail



- | | |
|----|---|
| 1 | ENCLOSURE™
Sheathing Board |
| 2 | ENCLOSURE™ Façade
& Roofing Membrane |
| 3 | ENCLOSURE™ Multi-Purpose
F & R - SS Fixing |
| 4 | ENCLOSURE™ Seal-a-Sill™ |
| 5 | ENCLOSURE™ Flash-n-Seal™ |
| 6 | ENCLOSURE™ A - Extrusion |
| 7 | ENCLOSURE™ Cassette Rail |
| 8 | Alpolic™ for Rainscreen Panels |
| 9 | Cavity |
| 10 | High Impact Construction
Tolerance Packer |
| 11 | Silicone Sealant |
| 12 | Steel Pin with End Closers |
| 13 | Rivet Fixing |
| 14 | 316 SS Screw Fixing |
| 15 | Structural Wall Framing |
| 16 | Insulation |
| 17 | Internal Wall Lining |
| 18 | Corner Panel Reinforcing |
| 19 | Aluminium Fixing Angle |
| 20 | Panel Fold Cleats |
| 21 | Aluminium Corner Support |
| 22 | Screw Fixing |



T50 Anchoring System

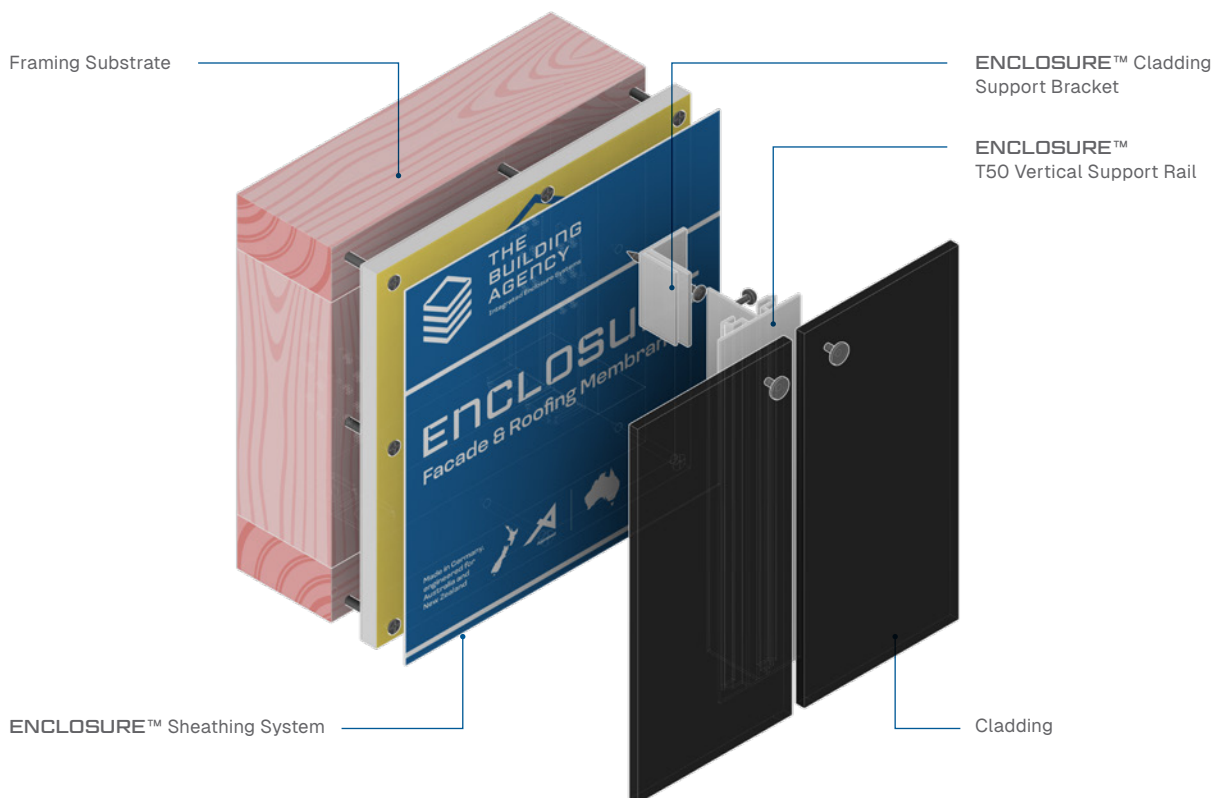
Visible-Fixed Systems for flat facade panels

Product Overview

The ENCLOSURE™ T50 Anchoring System is a drained & ventilated cavity system based on the concept of vertical only aluminium rails and variable support brackets.

The T50 Anchoring System excels due to its simplicity, and provides enhanced safety against weathering, and building performance, while maintaining unparalleled versatility and flexibility

when creating cavities between 65mm and 600mm wide. These larger cavities enable the opportunity to adopt and deliver the European standards of externally insulated building envelopes. The system is designed to deliver a higher thermal performance and mould management, and aesthetic cladding application while still remaining economical & competitive price.





Product Benefits

- ✓ Highly suitable for multi-level developments, providing options for both simple and complex façade lay-out
- ✓ Engineered to fit over standard NZS3604 timber framing without the need for doubling up of timber studs
- ✓ The system can carry cladding sheets such as Equitone Fibre Cement, HPL panel, Natural Stone Panels, Architectural Glass, Aluminium Composite, Terracotta Tiles and more
- ✓ Equitone Codemark.



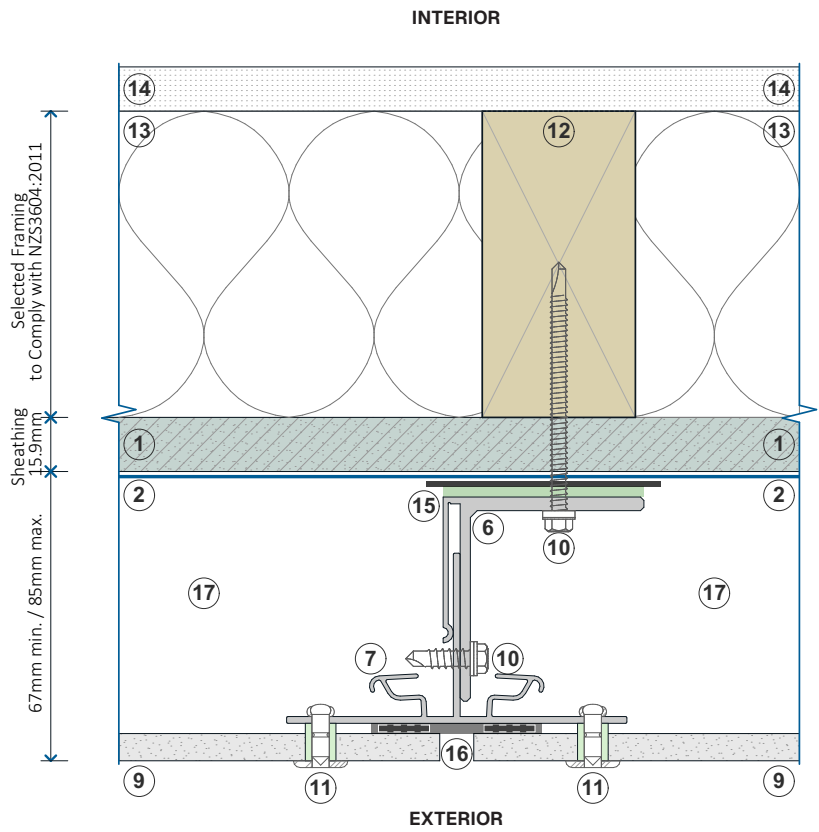
Product Specification

ANCHORING SYSTEM	MATERIAL	CLADDING TYPE	WIND LOAD	MIN. CAVITY DEPTH	COMPLIANCE
T50 Anchoring System	Extruded aluminium + stainless steel components	Various	Up to 2.5 kPa (ULS)	67mm	Codemark Certificate - Equitone



ENCLOSURE™ T50 Anchoring System

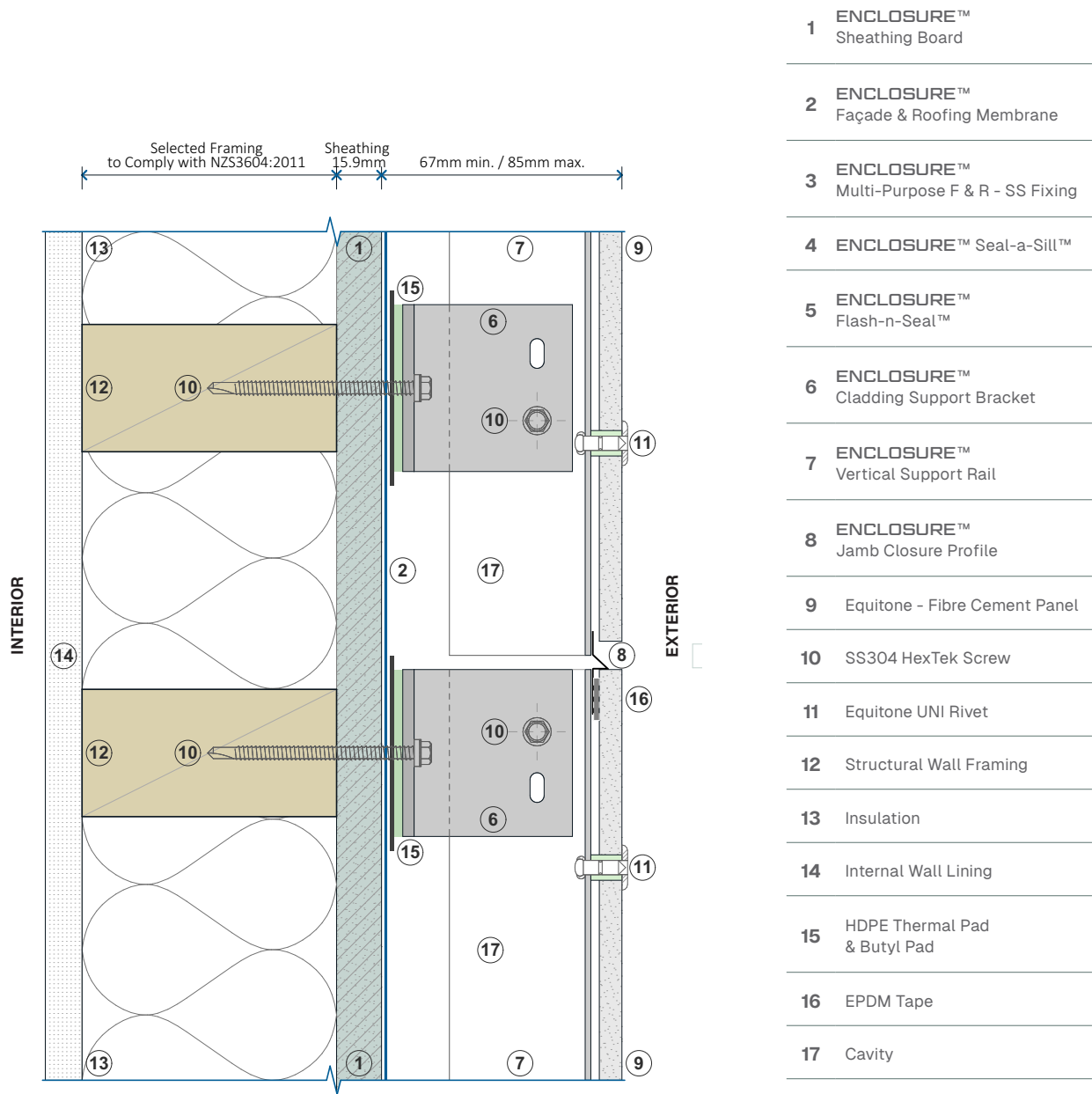
T50 Anchoring – Vertical Sheet Joint Typical Detail



1	ENCLOSURE™ Sheathing Board	9	Equitone - Fibre Cement Panel
2	ENCLOSURE™ Façade & Roofing Membrane	10	SS304 HexTek Screw
3	ENCLOSURE™ Multi-Purpose F & R - SS Fixing	11	Equitone UNI Rivet
4	ENCLOSURE™ Seal-a-Sill™	12	Structural Wall Framing
5	ENCLOSURE™ Flash-n-Seal™	13	Insulation
6	ENCLOSURE™ Cladding Support Bracket	14	Internal Wall Lining
7	ENCLOSURE™ Vertical Support Rail	15	HDPE Thermal Pad & Butyl Pad
8	ENCLOSURE™ Horizontal Flashing	16	EPDM Tape
		17	Cavity



T50 Anchoring – Horizontal Sheet Joint Typical Detail





Top Hat Anchoring System

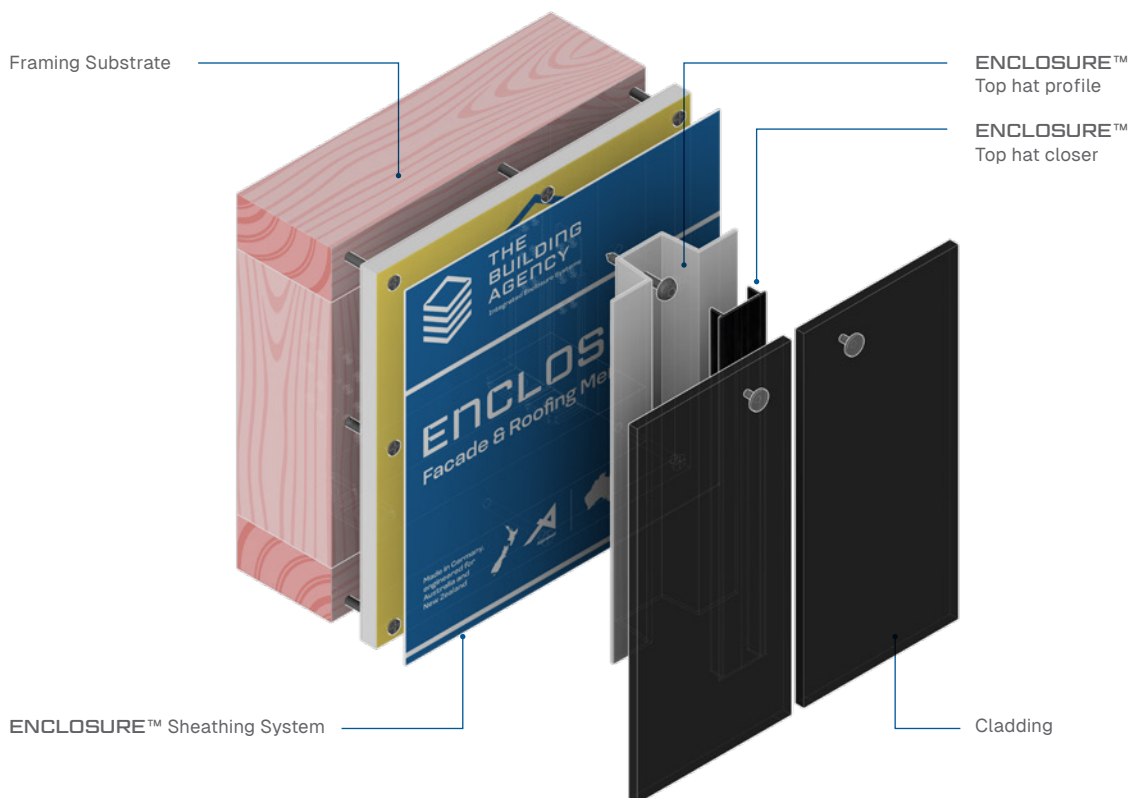
Visible-Fixed Systems for flat facade panels



Product Overview

Top hat rails provide a lightweight and durable substructure for a wide range of façade and cladding systems. Fixed to the primary building structure or rigid air barrier, creating a stable framework between the building structure and external cladding. Manufactured from aluminium, the Tophat system is designed to perform in demanding environments while offering excellent strength, performance, and corrosion resistance.

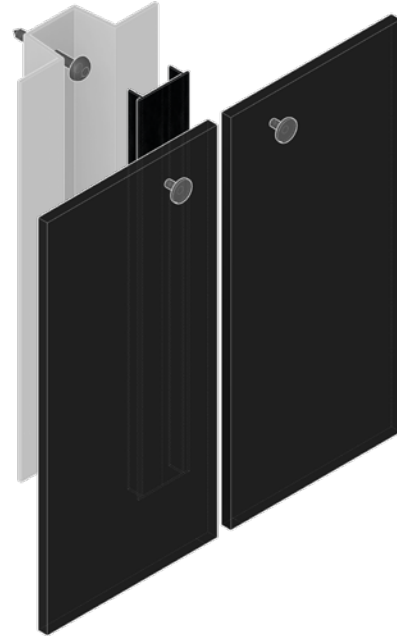
Top hat rails create the cavity required for drainage and ventilation, promoting effective moisture management and contributing to the long-term durability of the enclosure. They assist in overcoming construction tolerances, helping achieve a flat, aligned, and visually consistent façade finish.





Product Benefits

- ✓ Lightweight and durable substructure for a wide range of façade and cladding systems, creating a stable framework between the building structure and external cladding.
- ✓ Manufactured from corrosion-resistant aluminium, the system is designed to perform in demanding environments while supporting the loads imposed by the façade.
- ✓ Top hat rails create the cavity required for drainage and ventilation, promoting effective moisture management and contributing to the long-term durability of the enclosure.
- ✓ Their adjustable nature also assists in overcoming construction tolerances, helping achieve a flat, aligned, and visually consistent façade finish.



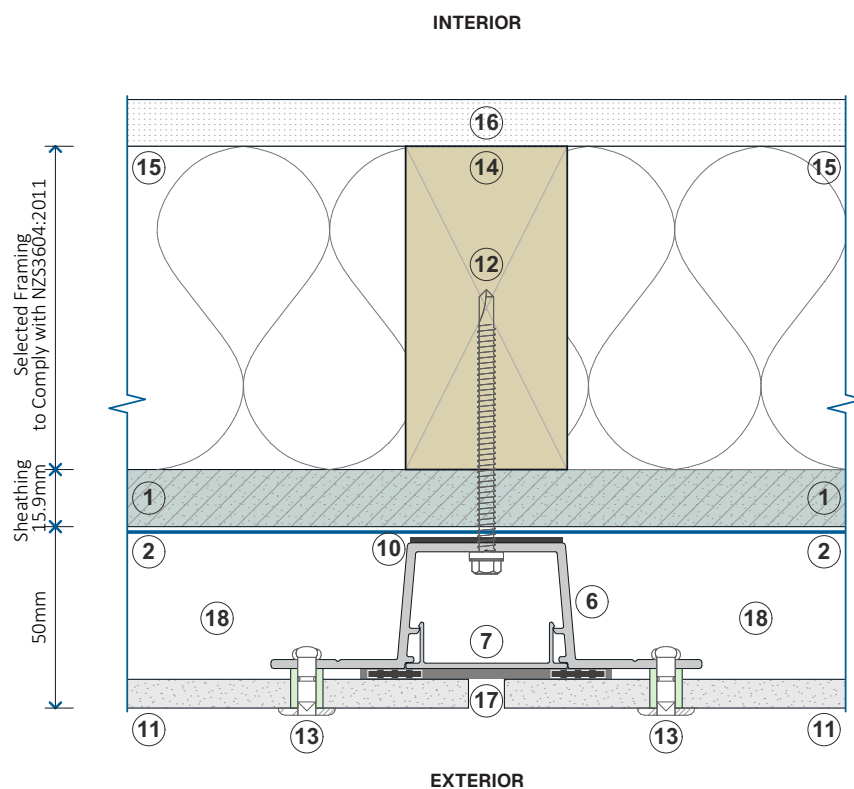
Product Specification

ANCHORING SYSTEM	MATERIAL	CLADDING TYPE	WIND LOAD	MIN. CAVITY DEPTH	COMPLIANCE
Top Hat Anchoring System	Extruded aluminium + stainless steel screws or rivets	Various	Up to 2.5 kPa (ULS)	35mm	Codemark Certificate - Equitone



ENCLOSURE™ Top Hat Anchoring System

Top Hat Anchoring – Vertical Sheet Joint Typical Detail



1 ENCLOSURE™ Sheathing Board

2 ENCLOSURE™ Façade & Roofing Membrane

3 ENCLOSURE™ Multi-Purpose F & R - SS Fixing

4 ENCLOSURE™ Seal-a-Sill™

5 ENCLOSURE™ Flash-n-Seal™

6 ENCLOSURE™ Top Hat Profile

7 ENCLOSURE™ Top Hat Closer

8 ENCLOSURE™ Horizontal Flashing

9 ENCLOSURE™ Cavity Closure

10 ENCLOSURE™ Butyl Pad

11 Equitone - Fibre Cement Panel

12 SS304 HexTek Screw

13 Equitone UNI Rivet

14 Structural Wall Framing

15 Insulation

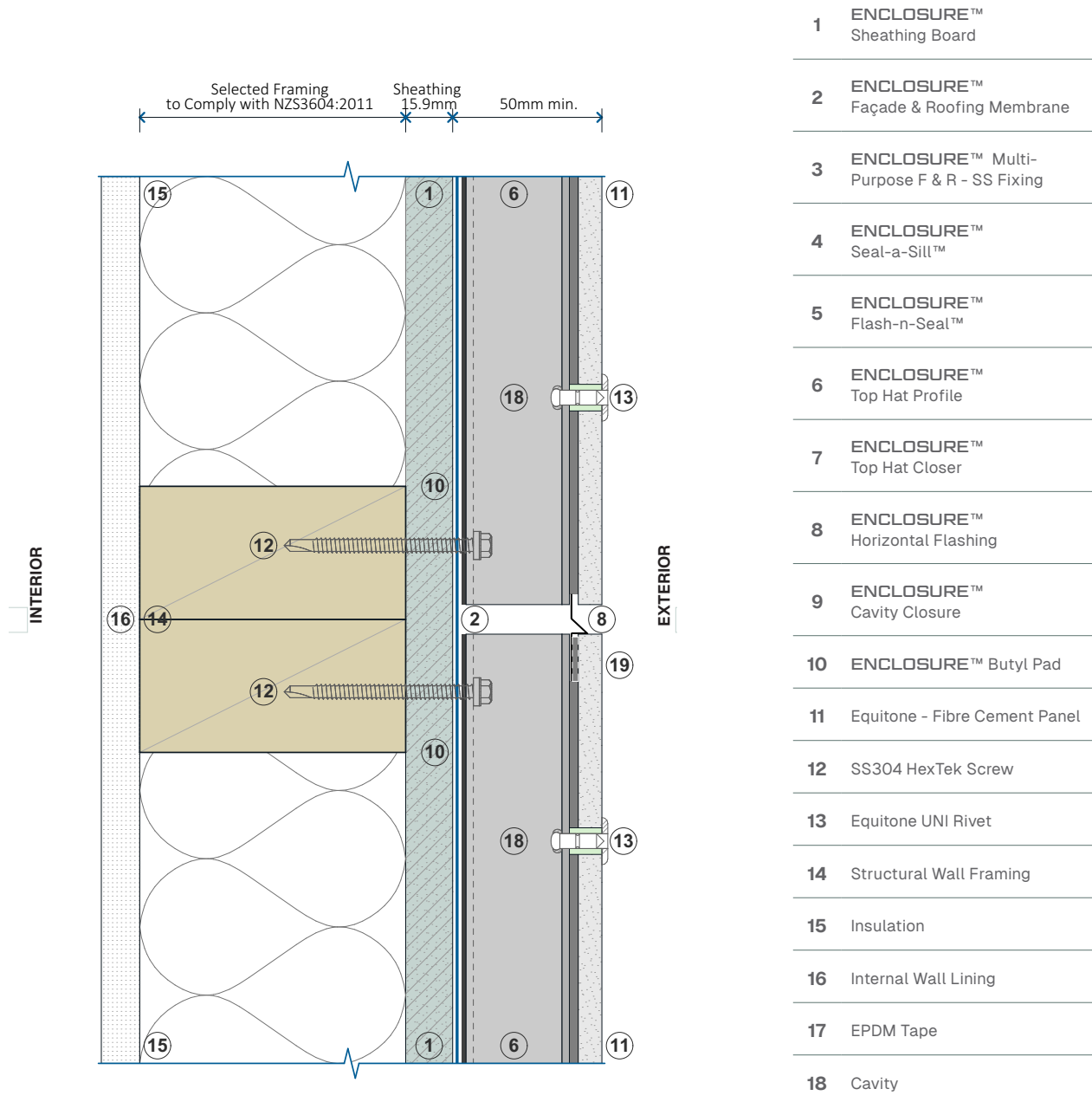
16 Internal Wall Lining

17 EPDM Tape

18 Cavity



Top Hat Anchoring – Horizontal Sheet Joint Typical Detail





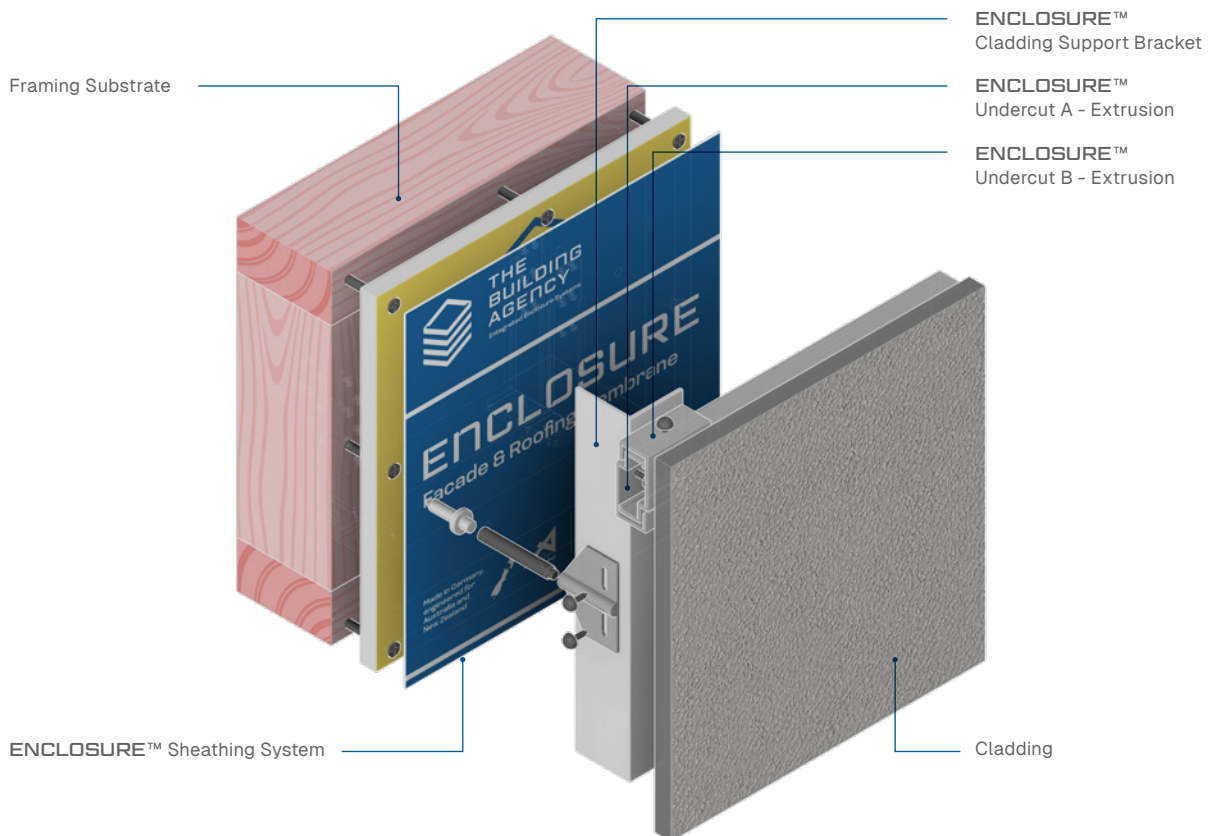
Undercut Anchoring System

Invisible-Fixed Systems for larger facade panels

Product Overview

The Undercut Anchoring System is an engineered, thermally broken aluminium rainscreen subframe designed for concealed (secret-fix) cladding applications. Drilled and fitted with specialised undercut anchors on the rear, secure the panels without visible face fixings, creating a refined architectural appearance while maintaining installation accuracy.

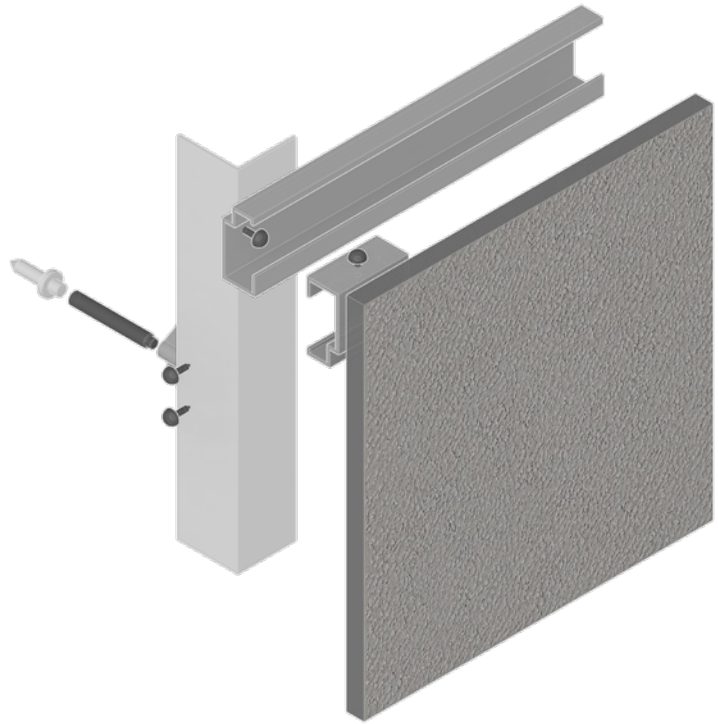
Compatible with premium façade panels such as EQUITONE fibre cement and TAKTL Ultra High Performance Concrete, and large format porcelain tiles such as Techlam*. The thermally broken aluminium rainscreen subframe supports superior thermal performance, durability, and long-term façade integrity.





Product Benefits

- ✓ Engineered concealed-fix façade solution designed for premium rainscreen cladding applications.
- ✓ Rear-mounted anchors secure the panels without visible face fixings, creating a refined architectural appearance while maintaining installation accuracy.
- ✓ Compatible with materials including EQUITONE fibre cement and TAKTL ultra-high-performance concrete, and large format porcelain tiles such as Techlam*. The system offers flexibility across a wide range of façade designs.
- ✓ The thermally broken aluminium support structure provides durability, thermal efficiency, and reliable long-term performance in demanding environments.
- ✓ Superior thermal insulation – minimises punctual thermal bridges
- ✓ Fire protection class A1 – safe for all building categories

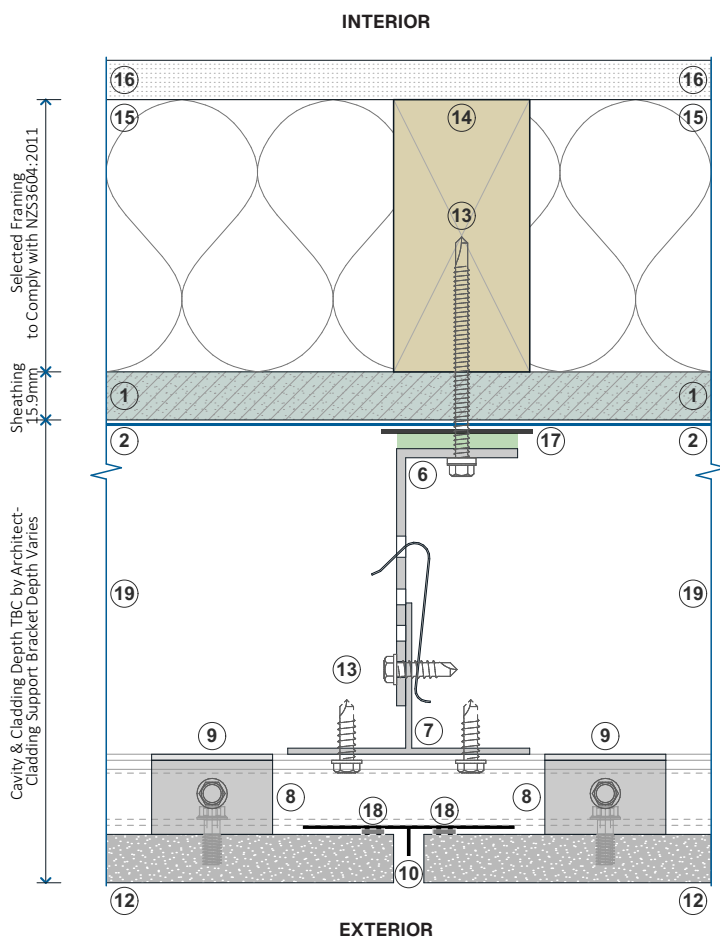


* In collaboration with Tile Warehouse



Product Specification

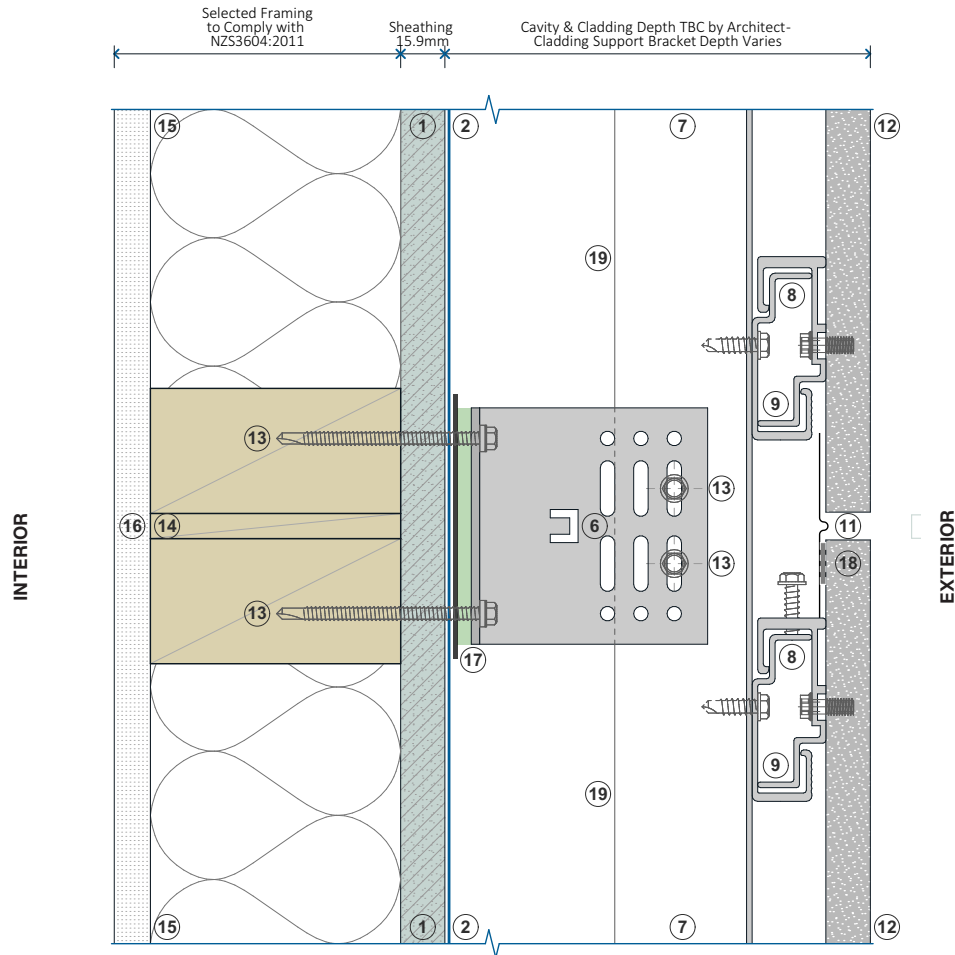
ANCHORING SYSTEM	MATERIAL	CLADDING TYPE	COMPLIANCE
Top Hat Anchoring System	Extruded aluminium + stainless steel components	Concrete, masonry and drywall exterior wall systems	Passive-house certified – meets the most stringent energy efficiency standards



1	ENCLOSURE™ Sheathing Board	11	ENCLOSURE™ Undercut Baffle
2	ENCLOSURE™ Façade & Roofing Membrane	12	TAKTL™
3	ENCLOSURE™ Multi-Purpose F & R - SS Fixing	13	SS304 HexTek Screw
4	ENCLOSURE™ Seal-a-Sill™	14	Structural Wall Framing
5	ENCLOSURE™ Flash-n-Seal™	15	Insulation
6	ENCLOSURE™ Cladding Support Bracket	16	Internal Wall Lining
7	ENCLOSURE™ Vertical Support Rail & S Clip	17	HDPE Thermal Pad & Butyl Pad
8	ENCLOSURE™ Undercut A - Extrusion	18	EPDM Tape
9	ENCLOSURE™ Undercut B - Extrusion	19	Cavity
10	ENCLOSURE™ Undercut Vertical Expressed Joint		



Undercut Anchoring – Horizontal Sheet Joint Typical Detail



1	ENCLOSURE™ Sheathing Board	11	ENCLOSURE™ Undercut Baffle
2	ENCLOSURE™ Façade & Roofing Membrane	12	TAKTL™
3	ENCLOSURE™ Multi-Purpose F & R - SS Fixing	13	SS304 HexTek Screw
4	ENCLOSURE™ Seal-a-Sill™	14	Structural Wall Framing
5	ENCLOSURE™ Flash-n-Seal™	15	Insulation
6	ENCLOSURE™ Cladding Support Bracket	16	Internal Wall Lining
7	ENCLOSURE™ Vertical Support Rail & S Clip	17	HDPE Thermal Pad & Butyl Pad
8	ENCLOSURE™ Undercut A - Extrusion	18	EPDM Tape
9	ENCLOSURE™ Undercut B - Extrusion	19	Cavity
10	ENCLOSURE™ Undercut Vertical Expressed Joint		



Alpha Rail System

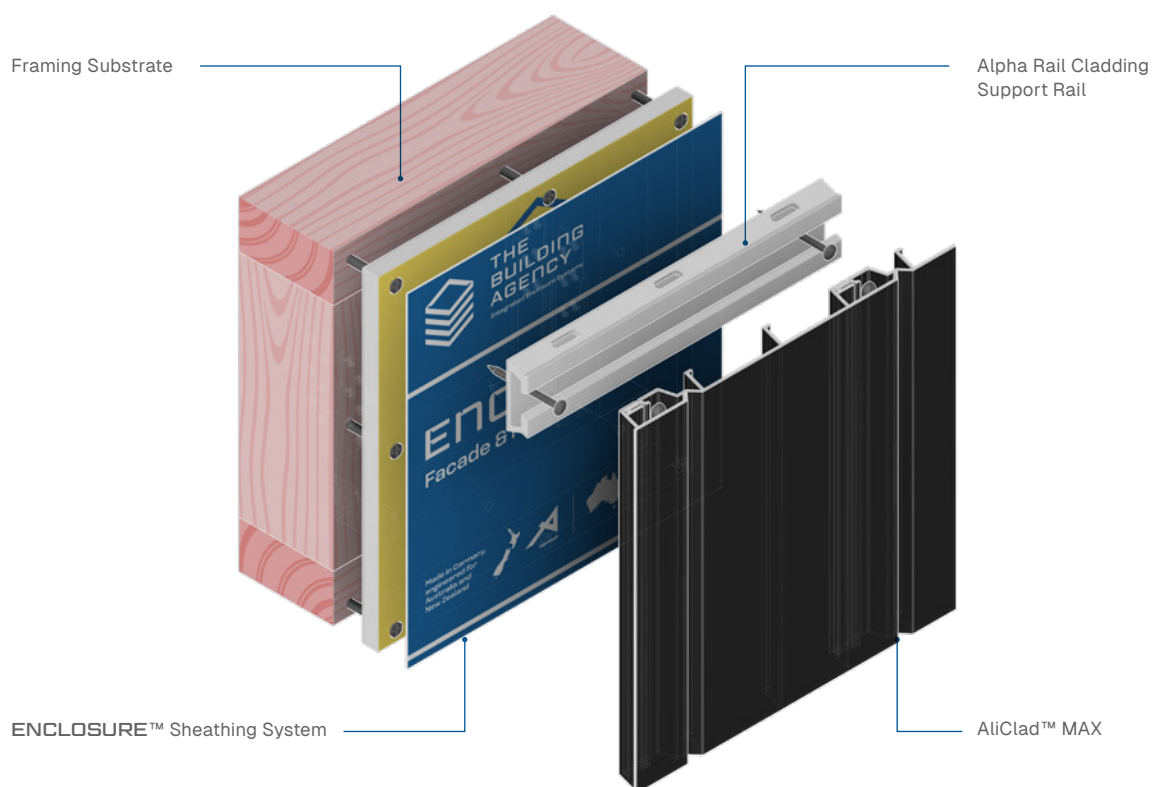
Aluminium Rail System for AliClad™ Aluminium Weatherboards

Product Overview

The AliClad™ MAX vertical and horizontal aluminium weatherboard systems utilise the Alpha Rail System, a high-performance aluminium support rail designed for ventilated rainscreen façades. Manufactured from aluminium, the system is well-suited to New Zealand's diverse environmental conditions, including coastal and high-wind locations.

The Alpha Rail System enables precise panel

alignment and efficient installation, supporting a high-quality façade finish. Designed for long-term performance, the system supports compliance with New Zealand Building Code requirements for structure, durability, and weathertightness.





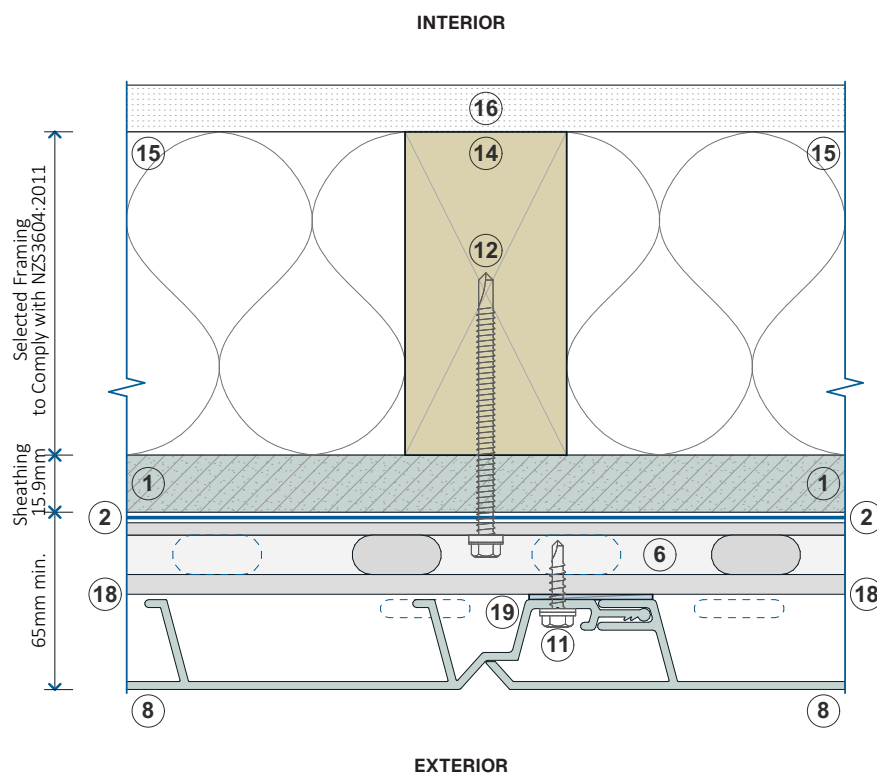
Product Benefits

- ✓ The Alpha Rail System is a high-performance aluminium support framework for AliClad™ MAX weatherboard façades.
- ✓ Designed for ventilated rainscreen construction, it provides strength, durability, and reliable long-term performance.
- ✓ Its adjustable design enables accurate panel alignment and efficient installation across a range of project types.
- ✓ Suitable for New Zealand conditions, the system supports structural performance, durability, and weathertightness.
- ✓ Aluminium Non-combustible.
- ✓ Suitable for use in coastal, high-wind, and demanding environmental conditions.
- ✓ Simple Installation.



Product Specification

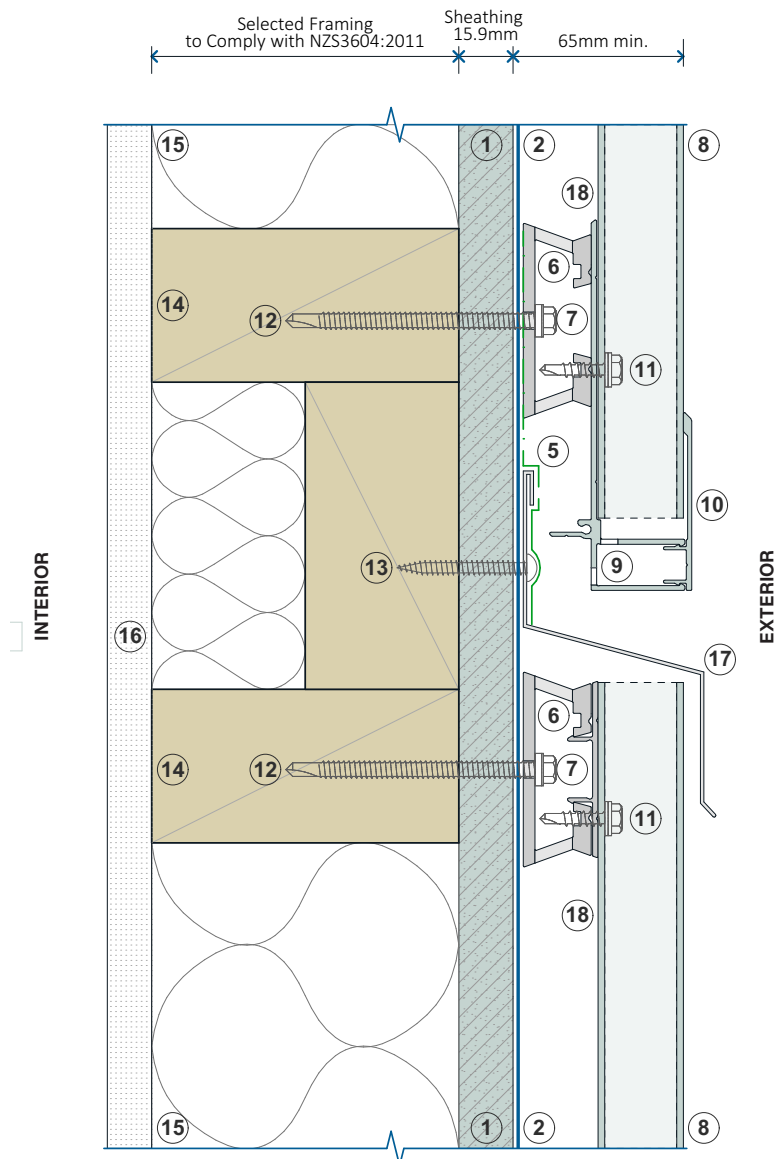
SYSTEM	MATERIAL	CLADDING TYPE	WIND LOAD	MIN. CAVITY DEPTH
Alpha Rail System	Extruded aluminium + stainless steel components	AliClad™ MAX	Up to 2.5 kPa (ULS)	25mm



1	ENCLOSURE™ Sheathing Board	11	SS304 HexTek Screw 19mm
2	ENCLOSURE™ Façade & Roofing Membrane	12	SS304 HexTek Screw
3	ENCLOSURE™ Multi-Purpose F & R - SS Fixing	13	316 SS Screw Fixing
4	ENCLOSURE™ Seal-a-Sill™	14	Structural Wall Framing
5	ENCLOSURE™ Flash-n-Seal™	15	Insulation
6	Alpha Rail Cladding Support Rail	16	Internal Wall Lining
7	Alpha Clip	17	Flashing
8	AliClad MAX™ Cladding	18	Cavity
9	AliClad MAX™ – Bottom of Cladding Base	19	High Impact Construction Tolerance Packer
10	AliClad MAX™ – J Mould Face		



Alpha Rail Anchoring – Horizontal Sheet Joint Typical Detail



- | | |
|----|---|
| 1 | ENCLOSURE™
Sheathing Board |
| 2 | ENCLOSURE™
Façade & Roofing Membrane |
| 3 | ENCLOSURE™ Multi-Purpose
F & R - SS Fixing |
| 4 | ENCLOSURE™ Seal-a-Sill™ |
| 5 | ENCLOSURE™ Flash-n-Seal™ |
| 6 | Alpha Rail Cladding Support Rail |
| 7 | Alpha Clip |
| 8 | AliClad MAX™ Cladding |
| 9 | AliClad MAX™
– Bottom of Cladding Base |
| 10 | AliClad MAX™ – J Mould Face |
| 11 | SS304 HexTek Screw 19mm |
| 12 | SS304 HexTek Screw |
| 13 | 316 SS Screw Fixing |
| 14 | Structural Wall Framing |
| 15 | Insulation |
| 16 | Internal Wall Lining |
| 17 | Flashing |
| 18 | Cavity |
| 19 | High Impact Construction
Tolerance Packer |



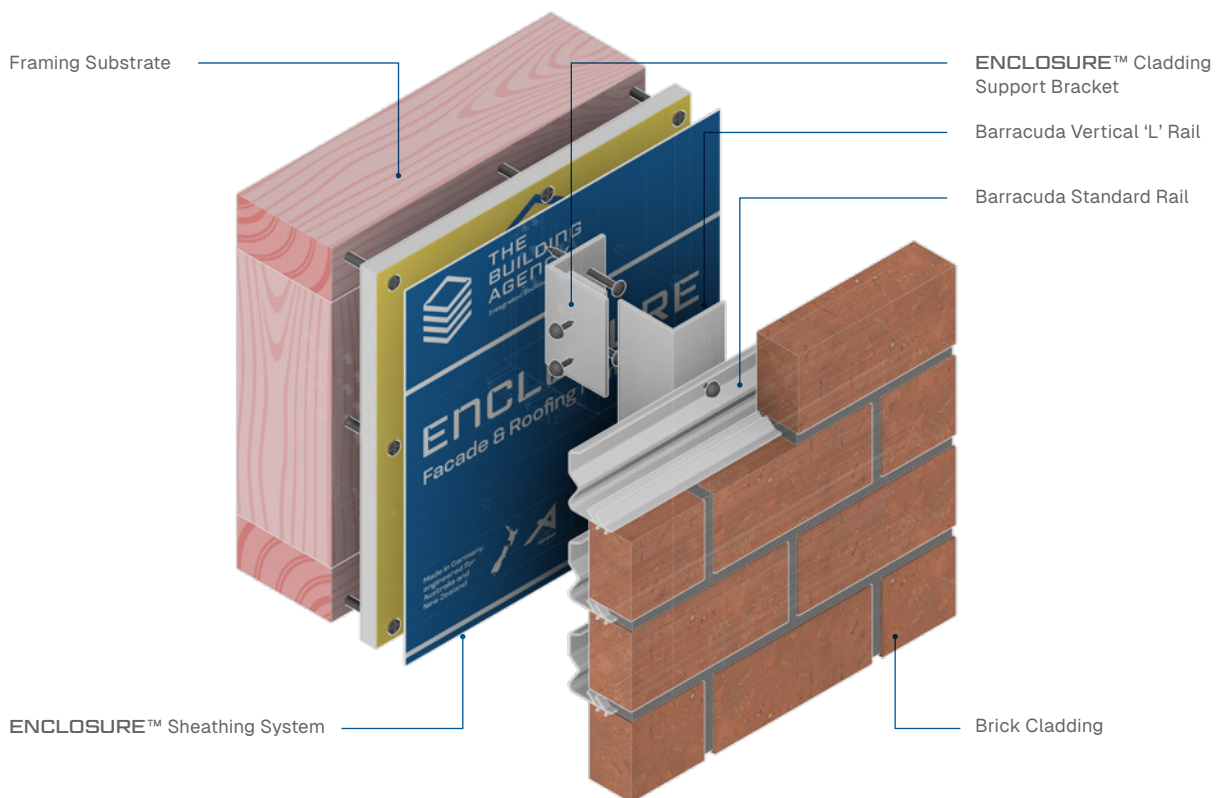
Barracuda® Brick Slip System

Brick Slip System for High Rise Brick Facades

Product Overview

The Barracuda Brick Slip System is a lightweight façade system that combines the appearance of traditional brick construction with the benefits of modern rainscreen technology. Mechanically fixed brick slips are mounted onto an engineered support framework, creating a durable and aesthetically appealing brick façade without the weight and structural demands of conventional masonry.

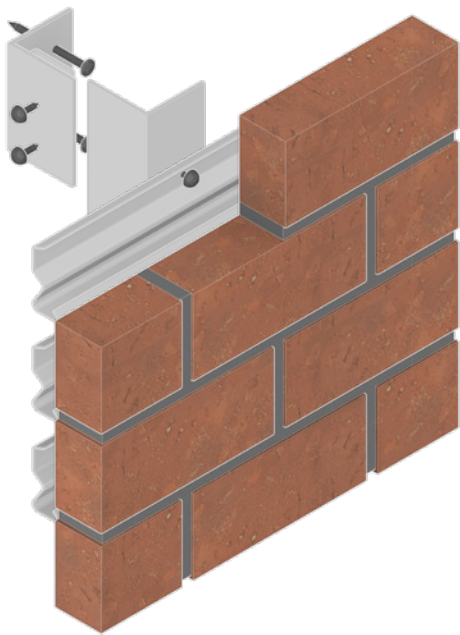
Suitable for both new construction and refurbishment projects, the Barracuda Brick Slip system supports efficient installation, consistent brick alignment, and improved construction productivity. The ventilated cavity design promotes drainage and drying behind the façade, enhancing weathertightness and durability while supporting compliance with New Zealand Building Code performance requirements.





Product Benefits

- ✓ The Barracuda Brick Slip System delivers the timeless appearance of traditional brickwork in a lightweight, modern façade solution.
- ✓ Mechanically fixed brick slips are installed onto an engineered support framework, creating a durable and visually consistent finish.
- ✓ Suitable for both new builds and refurbishment projects, the system enables faster installation and improved construction efficiency.
- ✓ A ventilated cavity promotes drainage and airflow, enhancing durability, weathertightness, and long-term façade performance.
- ✓ Designed to accommodate most brick sizes defined within BS EN 771-1.
- ✓ Rail system comprises of both stainless steel and aluminium, both of these materials are non-combustible.

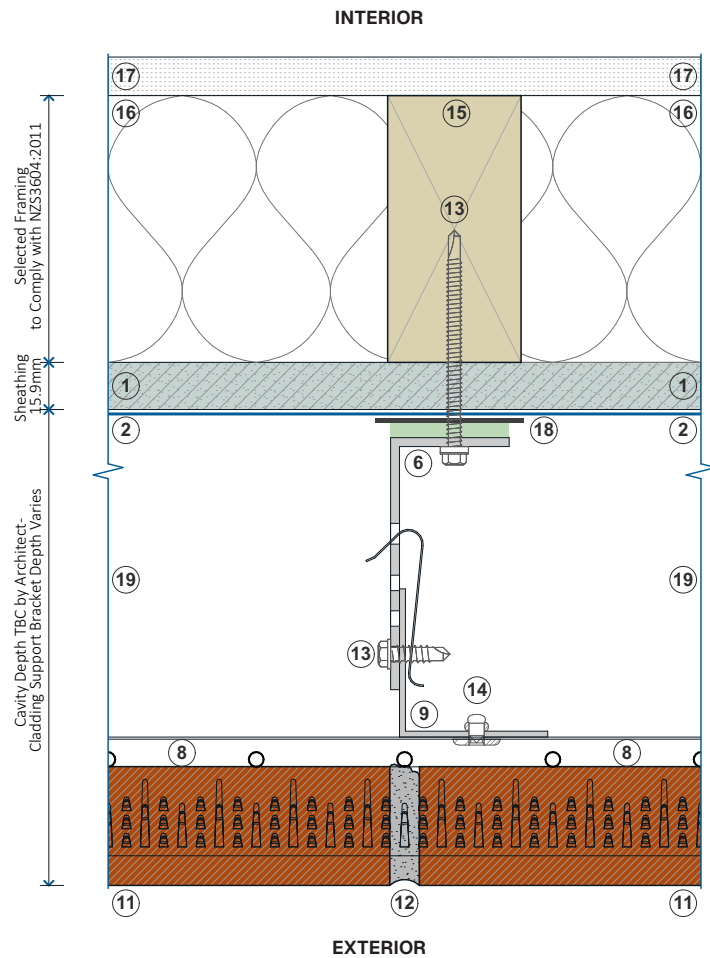


Product Specification

SYSTEM	MATERIAL	CLADDING TYPE	MIN. CAVITY DEPTH
Barracuda Brick Slip System	Extruded aluminium + stainless steel components	40mm brand brick	40mm



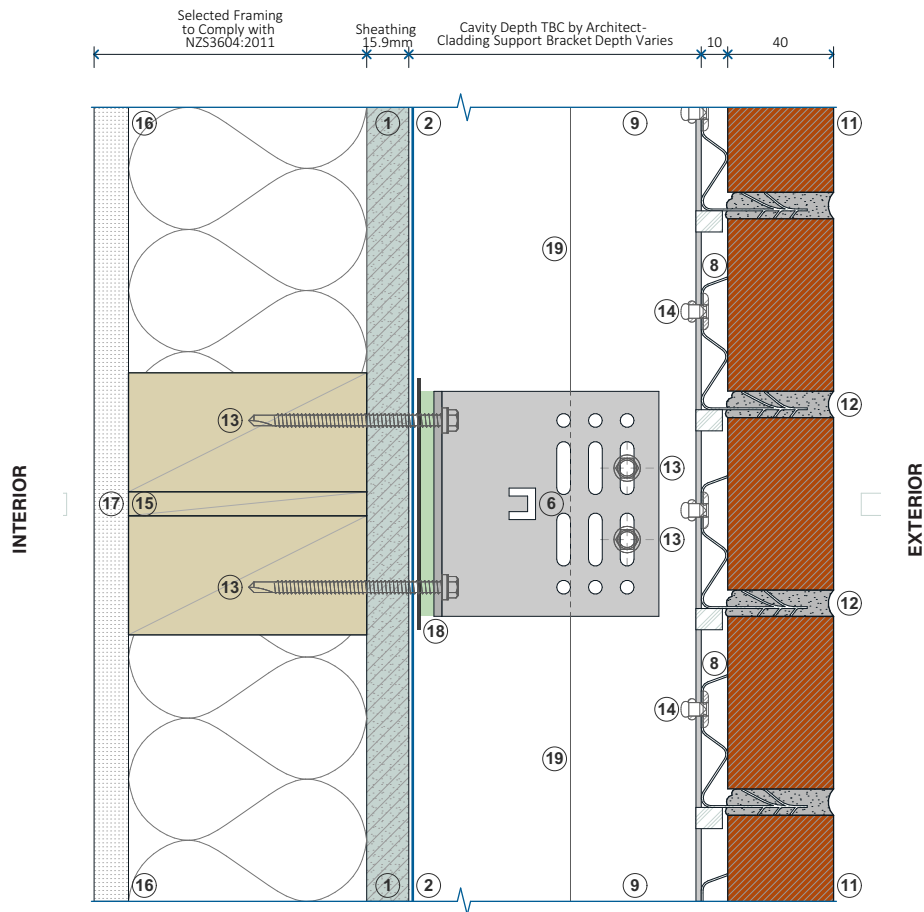
Barracuda – Vertical Sheet Joint Typical Detail



1	ENCLOSURE™ Sheathing Board	11	Brick Slip
2	ENCLOSURE™ Façade & Roofing Membrane	12	Mortar Joint
3	ENCLOSURE™ Multi-Purpose F & R - SS Fixing	13	SS304 HexTek Screw
4	ENCLOSURE™ Seal-a-Sill™	14	Rivet Fixing
5	ENCLOSURE™ Flash-n-Seal™	15	Structural Wall Framing
6	ENCLOSURE™ Cladding Support Bracket	16	Insulation
7	ENCLOSURE™ Vertical Support Rail & S Clip	17	Internal Wall Lining
8	Barracuda Standard Rail	18	HDPE Thermal Pad & Butyl Pad
9	Barracuda Vertical 'L' Rail	19	Cavity
10	Barracuda Head Rail		



Barracuda – Horizontal Sheet Joint Typical Detail



1	ENCLOSURE™ Sheathing Board
2	ENCLOSURE™ Façade & Roofing Membrane
3	ENCLOSURE™ Multi-Purpose F & R - SS Fixing
4	ENCLOSURE™ Seal-a-Sill™
5	ENCLOSURE™ Flash-n-Seal™
6	ENCLOSURE™ Cladding Support Bracket
7	ENCLOSURE™ Vertical Support Rail & S Clip
8	Barracuda Standard Rail
9	Barracuda Vertical 'L' Rail
10	Barracuda Head Rail

11	Brick Slip
12	Mortar Joint
13	SS304 HexTek Screw
14	Rivet Fixing
15	Structural Wall Framing
16	Insulation
17	Internal Wall Lining
18	HDPE Thermal Pad & Butyl Pad
19	Cavity



SF Screw

Product Overview

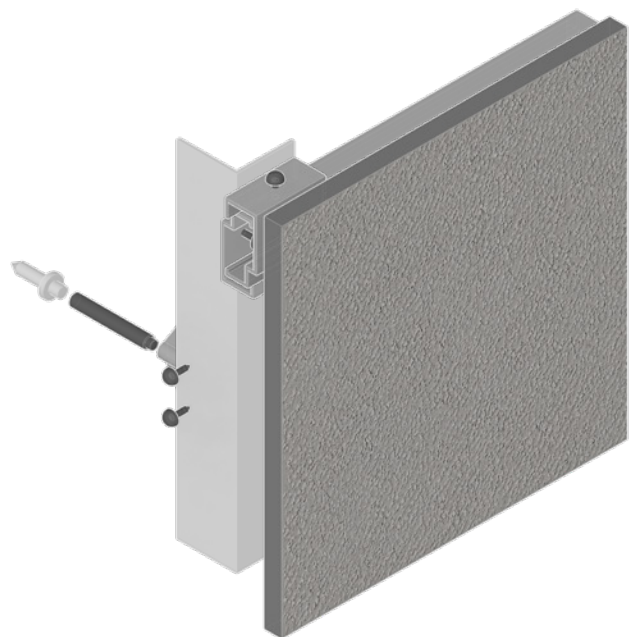
The Steel Frame screw is a newly developed screw that serves as a system component for fastening the GIP Isotherm® in metal structures. In combination with the stainless steel rod, this system is patented and protected for you. The self-tapping

SF screw serves as a wall bracket and anchor at the same time, enabling a facade project to be optimised in terms of material consumption and installation times. It provides the basis for anchoring the substructure, which subsequently supports the facade cladding.



Product Benefits

- ✓ **Approved for 0.5 - 2.0 mm steel**
Has a Germany-wide national technical approval (abZ).
- ✓ **Passive house certified**
Thermal-bridge free.
- ✓ **Centric load application**
Avoidance of lever arms which do not cause any torque movements .
- ✓ **Wall bracket + anchorage at the same time**
Less material & installation time.
- ✓ **New and patented**
With Isotherm® rod the system is patented.
- ✓ **High corrosion protection**
A4 thanks to A4 stainless steel.





Isotherm Rods

Product Overview

The requirements for thermal insulation of the building envelope are constantly increasing. From the point of view of construction physics, it is not only the wall construction itself that is important, but also to a particular extent the punctual thermal bridges according to DIN EN 6946 in the form of the wall brackets.

With the VECO-Isotherm, GIP has developed a passive-house certified wall anchor that fulfils the highest requirements in regards to building physics, due to the fire protection classification of A1, can also be used in all planning and building classes with peace of mind.

In addition to the typical applications (in concrete and masonry), the VECO®-Isotherm rod system can also be used safely in the drywall exterior wall systems that are becoming increasingly established on the market. Product Benefits



Product Benefits

- ✓ Highest fire protection class A1**
 Use of 100 % non-combustible materials.
 Unrestricted usability in all building classes
- ✓ Quick and safe assembly**
 Proven mounting on approved plastic dowels with threaded attachment. Safe use in drywall exteriors.
- ✓ Passive house certified**
 Meets the highest building physics requirements. Suitable for thermal bridge-optimised fastening of facade systems.
- ✓ Refurbishment of existing buildings**
 No need to remove the existing insulation. The rods can be anchored through the existing insulation into the load-bearing wall.
- ✓ Recyclability**
 The individual system components are fully recyclable and thus contribute to climate protection.
- ✓ Freedom of planning**
 Maximum flexibility in facade design. Can be used for all commercially available facade claddings.



**THE
BUILDING
AGENCY**

Integrated Enclosure Systems

New Zealand

+64 9 415 2669

info@buildingagency.co.nz

thebuildingagency.co.nz

Australia

+61 435 385 674

enquiry@tbagency.com.au

tbagency.com.au