INNOVA by etex

August 2025

Duragrid®

Exterior Facades

Design and installation guide

New Zealand

BRANZ Appraised
Appraisal No. 752

Progress comes from change. And change comes from challenging the status quo.

Inspired by Etex, the global leader in fibre cement, Innova is bringing the change the industry needs. So now architects, builders, and homeowners can make the changes they want.

We'll never stop innovating our stylish fibre cement range. We'll never stop finding efficiencies and passing on the savings.

Change is what defines us and propels us forward. Change is the foundation we're built on.

Innova. Built on change.

Contents

Disclaimer

Innova products and systems designed by Etex Australia Pty Ltd are produced in accordance with the New Zealand Building Code and relevant New Zealand Standards at the time of publication. Information in this document is to be used as a guide and is subject to project approval as many aspects of construction are not comprehensively covered. It is the responsibility of the designer to confirm Innova products and systems are suitable and meet the requirements for the intended application. Etex Australia Pty Ltd will not be held responsible for any claims resulting from installation not in accordance with the manufacturer's technical literature or relevant Standards.

Innova regularly updates technical literature; to ensure this document is current with the latest information, visit innovafibrecement.co.nz.

Warranty

Duragrid® is warranted for a period of 25 years.

Please refer innovafibrecement.co.nz for detailed warranty information.

About Innova

Innova is a commercial brand of Etex, a global building material manufacturer and pioneer in lightweight construction. Etex wants to inspire people around the world to build living spaces that are ever more safe, sustainable, smart, and beautiful. Founded in 1905 in Belgium, Etex are a family-owned company with more than 13,500 employees across 160 sites and 45 countries.

Innova are the fibre cement specialists, and distribute external cladding systems, interior lining and flooring substrate products specifically designed for the residential and commercial markets in Australia and New Zealand

With a deep understanding of the local market needs, the Innova range of fibre cement products provide architects, designers, builders and homeowners with a range of traditional and contemporary solutions to create spaces that work for their project.

Innova are constantly looking for ways to evolve and innovate their product offering, adapting to changes in the market.

Innova - built on change, backed by Etex.

1. Working Safely

1.1 Working Safely with Innova Fibre Cement

WARNING: P2 OR HIGHER-GRADE RESPIRATOR MUST BE WORN AND PRODUCT CUT OUTDOORS.

Innova fibre cement is manufactured from finely ground sand (silica), cellulose fibres, Portland cement and additives. In the product's manufactured state, it does not release airborne dust. Inhalation of Respirable Crystalline Silica (RCS) is hazardous and can cause damage to lungs, respiratory system, and cancer when users are exposed to dust over prolonged periods without adequate controls in place.

The risks associated with RCS inhalation arise during installation activities where mechanical methods are used for cutting, rebating, drilling, routing, crushing, sanding and cleaning up, disposing of, or relocating dust.

Before, during and after installation, it is important to be aware of activities that generate and lead to dust becoming airborne. Innova recommends following the Innova Working Safely Guidelines listed below in addition to site-specific safety procedures and WorkSafe New Zealand guidelines.

USERS ARE RESPONSIBLE FOR ADHERING TO GUIDELINES, RECOMMENDATIONS, SAFETY DATA SHEETS, INSTALLATION GUIDES, GOVERNMENT AND LOCAL REGULATIONS TO AVOID SERIOUS HEALTH IMPACTS.

Control the risks by utilising engineering controls (i.e. tools/equipment), administrative controls (i.e. workspace/safe work method statement) and correct PPE (i.e. respirator/eye wear).

1.2 Innova Working Safely Guidelines

Documentation

Read the current Safety Data Sheet and Working Safely documents available at innovafibrecement.co.nz.

ALWAYS wear a properly fitted P2 or higher-grade respirator when cutting, drilling, rebating, sanding.

ALWAYS alternate cutting activities with others to reduce exposure time.

AVOID using power tools to cut or shape fibre cement products indoors.

NEVER use a saw blade that is not designed to cut fibre cement.

ALWAYS use on-tool dust extraction when using power tools; M or H-Class vacuum fitted with a HEPA filter.

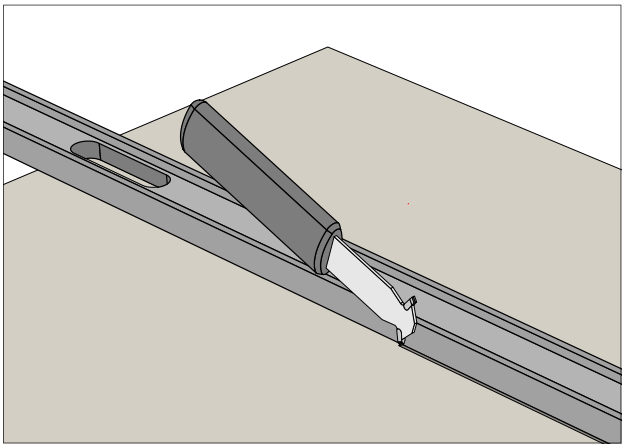
ALWAYS follow the tool manufacturer's guidelines for correct and safe operation.

DO NOT dry sweep. Use wet suppression then sweep or H or M-Class vacuum.

DO NOT continue activities if you are concerned about exposure levels or cannot comply with the above guidelines.

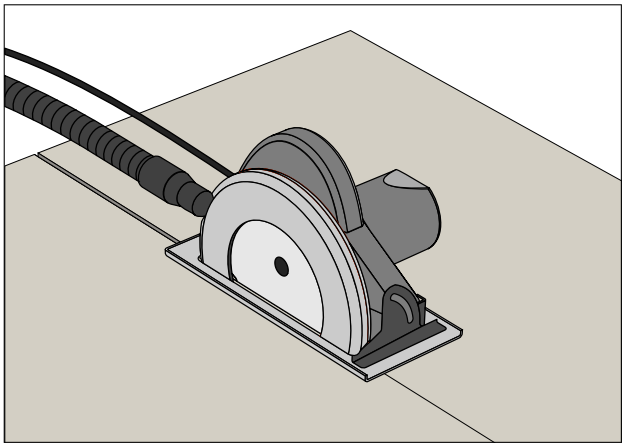
Score and Snap Knife

Score the face of the product using a straight edge and repeat until adequate depth is achieved for a clean break when pulling upwards. Smooth rough edges with a rasp.



Power Saw

Circular, compound mitre and track saws with dust extraction provide accurate and clean cuts. Ensure saw is fitted with a PCD 4 or 6 tooth fibre cement blade. Always follow the manufacturers guidelines for safe operation.



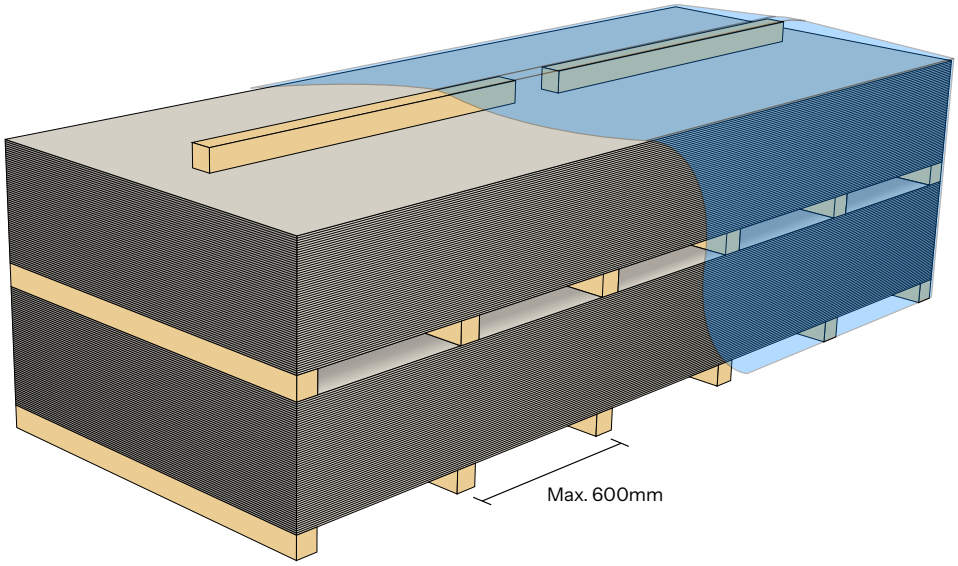
2. Storage and Handling

2.1 Storage

Duragrid® must be stored flat on pallets or level gluts at a maximum of 600mm, inside and undercover in dry conditions, protected from weather and potential influence of other trades.

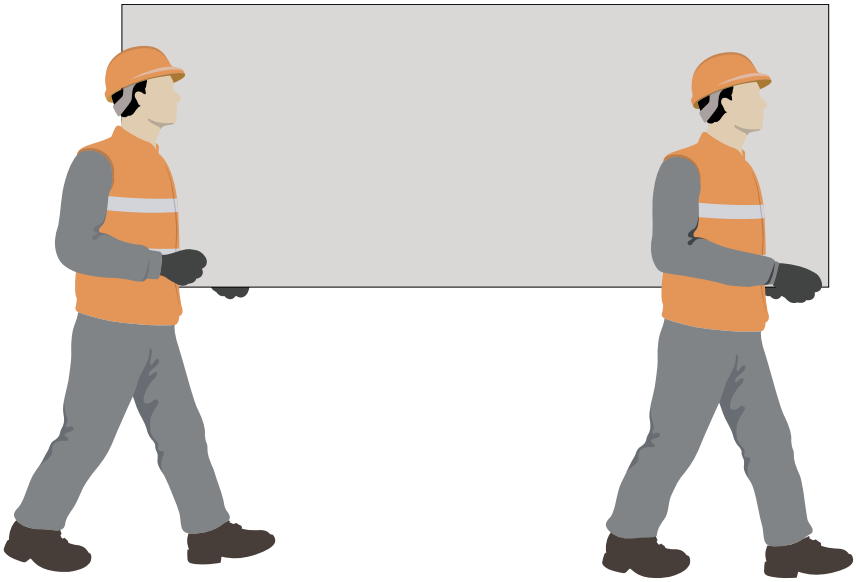
If outdoor storage is unavoidable, extra care and attention is needed to protect the product from rain and direct sun.

Protect the packs with a solid color waterproof cover such as a tarpaulin. This cover must be pitched in the center to allow for moisture to run off and avoid water pooling.



2.2 Handling

Duragrid® must be dry prior to fixing or finishing. Care should be taken to avoid damage to the ends, edges and surfaces. Panels must be carried on edge to avoid excessive bending. Coordination of installation is important to avoid damage from adjacent trades or activities. Damaged Duragrid® sheets must be replaced.



2.3 Inspection

Check sheets and components before starting installation, if there are signs of damage or defects, do not install and contact Innova for guidance.

3. Design and Construction

3.1 Considerations

This guide outlines the installation of Duragrid® for designs with wind pressures up to a maximum differential ultimate limit state (ULS) of 2.5 kPa. The designer must calculate the project's wind pressure and specify the batten layout, spacing, and fixing to the structure.

It is recommended project specific facade designs be undertaken by a consultant experienced in such detailing.

All aspects of design and construction is required to align with all relevant provisions of the New Zealand Building Code and New Zealand standards.

In all areas, care should be taken in the design detailing, especially around all openings, corners and other junctions, to ensure weather resistance of the total system.

Before cladding and the supporting substructure are installed and fixed, take care that all flashing and waterproofing elements are complete, including all wall wrap and damp-proof coursing.

3.2 General Framing

Frames must be straight and plumb within 3mm in any given 3000mm length of framing, Duragrid® will not straighten excessively warped or distorted frames and any warping may still be visible after Duragrid® is installed. Warped framing will require remedial action prior to cladding installation.

Buildings in high wind zones will require specific design to be undertaken.

The deflection of the supporting structure should be limited span/250 for Serviceability Wind Load or as limited by AS/NZS 1170.2 Structural design actions Wind actions.

3.3 Timber Framing

Timber wall framing must be treated and have a moisture content as required by NZBC clause B2 Durability.

Timber framing must comply with all current NZ Standards and any specific engineering design specifications.

Duragrid® requires a minimum stud framing width of 45mm. Stud spacing must not be greater than 600mm centres. Nogging/dwang spacing must not be greater than 800mm centres.

Timber must have a maximum moisture content of 20% at the time of wall wrap or Durabarrier® installation.

For timber frame walls exceeding 12 meters in length, it is advisable to include construction joints to account for movements caused by timber shrinkage or deflections due to loadings and other factors.

3.4 Control Joints

Movement or control joints in the primary frame must be reflected through to Duragrid®. For construction within the scope of E2/AS1, it is a requirement to have a horizontal Z flashing at max. 7m of continuous wall cladding.

Duragrid® sheets must not bridge over control joints.

3.5 Flashings

It is a requirement of the NZBC E2/AS1 External Moisture to install flashings to building elements and critical junctions. Flashing material must comply with NZBC Acceptable Solution E2/AS1.

3.6 Alpine Regions

Duragrid® should not be used in environments where it will be in direct contact with snow or ice for prolonged periods. External walls in alpine regions must be protected where snow drifts over winter are expected.

When used in freeze/thaw conditions, Duragrid® must be painted immediately after installation.

3.7 Exposure Zones

Duragrid® may be used in all exposure zones outlined in NZS 3604 Timber Framed Buildings Section 4.2.

It remains the responsibility of the architect or building designer to specify the appropriate components such as fasteners, clips and metal framing systems with corrosion resistant properties meeting the corrosivity standards and site conditions of the project. Adverse micro-climatic factors as detailed in NZS 3604 Timber Framed Buildings Section 4.2.4 may require specific engineered design.

3.8 Clearances

At ground level, Duragrid must be a minimum 100mm from paved surfaces and 175mm from unpaved surfaces in accordance with NZBC Acceptable Solution E2/AS1. The ground clearances to finished floor levels as set out in NZS 3604 must be adhered to.

At balcony, deck or low pitched roof/wall junctions, Duragrid® must be kept clear of any adjacent surface, or above the top surface of any adjacent roof flashing by a minimum of 35mm in accordance with NZBC Acceptable Solution E2/AS1.

3.9 Joint Positioning

Plan the location of vertical and horizontal joints before installation begins to follow the house and framing design. To achieve this, consider aligning the joints with key structure elements such as windows, doors, entrance ways and architectural features. Alternatively, to achieve symmetry, work your joint positioning from the centerline out to the wall edge.

3.10 Moisture Management

Designers, specifiers and builders are responsible for managing moisture related risks through all phases of the construction project from design to completion.

The wall design and components must be appropriate for the intended application. The design must consider any unique project requirements, considering both the interior and exterior sides of the wall. Special consideration should be given to buildings that are in extreme climates, proximity to bodies of water or at risk of wind-driven rain.

In all areas, care should be taken in the design detailing, especially around all openings, corners and other junctions, to ensure weather resistance of the total system.

Before cladding and the supporting substructure are installed and fixed, particular care should be taken that all necessary flashing and waterproofing elements are complete.

In addition, all wall openings, including penetrations, junctions, connections, windows and doors, must incorporate appropriate flashing for weatherproofing. All other components and associated installation methods must be designed to manage moisture in walls and should comply with the relevant standards and the NZBC.

3.11 Slabs and Footings

The building's foundation and slab must meet the requirements of NZBC Clause B1 Structure and NZS 3604 Timber Framed Buildings.

4. Product Information

4.1 Introduction

The Duragrid® system is a cavity-based, expressed joint external wall cladding solution designed for residential and light commercial buildings using standard domestic construction techniques. It features 9mm factory-sealed fibre cement sheets, which are installed over timber battens and aluminum backing strips to form a cavity. The fibre cement sheets are finished with a durable acrylic paint coating for enhanced weather resistance and aesthetic appeal.

Duragrid® panels are designed to be installed vertically and horizontally in brick or stack bond patterns to suit the project's design aesthetic.

Duragrid® can be used as a wall cladding system in all wind zones and situated in specific design wind pressures up to a maximum design differential ultimate limit state (ULS) of 2.5kPa as per NZS 3604 – Timber Framed Buildings.

The material properties of Duragrid® provides tangible benefits and is suitable for:

- Use as a lightweight cladding system
- Readily accepts many forms of decorative finish
- Highly durable
- Dynamic architectural style.
- Fully sealed and primed panels

4.2 Durability

Innova Fibre Cement products have proven their resistance to heat and moisture exposure by complying with AS/NZS 2908.2 Cellulose-cement products Part 2: Flat sheets:

- Water permeability (Clause 6.2)
- Warm water (Clause 6.4)
- Heat rain (Clause 6.5)
- Soak dry (Clause 6.6)

4.3 Quality

Duragrid® is produced under ISO9001:2015 Certification for Quality Management Systems.

4.4 Bracing

Duragrid® is not suitable for structural bracing. Bracing can be achieved with the addition of Durabarrier® as a rigid sheathing/air barrier or by using Duraliner® as an internal lining. Refer to Duraliner® or Durabarrier® Design & Installation Guide for more information.

4.5 Product Conformance

Duragrid® is manufactured from Portland cement, finely ground sand, cellulose fibres and water. The sheets are cured in a high-pressure steam autoclave to create a durable, dimensionally stable product. Innova fibre cement products are manufactured to conform to the requirements of AS/NZS 2908 Cellulose-Cement Products, Part 2: Flat Sheets.

Duragrid® is classified as Type A, Category 3.

4.6 Compliance

Duragrid® complies with the relevant performance requirements of the New Zealand Building Code (NZBC) and has been BRANZ Appraised (BRANZ Appraisal No. 752).

The project specifier or certifier must ensure that all materials, accessories, and components meet the suitability and compliance requirements for the specific building.

4.7 Fire

Control of External Fire Spread

Duragrid® is classified as 'Type A' as per MBIE Building Product Specifications Table 8.4.1.2 Classification of cladding materials.

Duragrid® has a peak heat release rate of <100 kW/m^2 and a total heat release of <25 MJ/m^2, meeting NZBC Acceptable Solution C/AS1 requirements for SH Risk Group buildings at any distance to the relevant boundary. For other Risk Groups, refer to NZBC Acceptable Solution C/AS2 for exterior surface finish requirements.

Prevention of Fire Occurring

Separation or protection must be provided to Duragrid® from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 – C/AS2 and NZBC Verification Method CVM1 provide methods for separation and protection of combustible materials from heat sources.

Fire Rating

A 30/30/30 and 60/60/60 FRR can be achieved with the use of Durabarrier® - refer to the Durabarrier® Design and Installation Guide for details. For other fire ratings, contact Innova.

30 Minute Fire Resistance Rating (FRR)

To achieve a 30/30/30 FRR, Durabarrier® must be installed in accordance with the construction details in Section 8.4 and as below:

Interior lining: 10mm GIB® Fyreline fixed as per GIB® (Winstone Wallboards) specification GBTL 30 system from GIB® Fire Rated Systems - Refer to latest version.

Insulation: Any R2.2 fibreglass insulation, nominal 95mm thickness.

Timber framing: Minimum 90mm deep x 45mm wide, in accordance with NZS 3604 Timber Framed Buildings. Studs at maximum 600mm centres. Noggings at maximum 800mm centres. Double or staggered studs may be used.

Exterior face: Durabarrier® 6mm Fixed with 40 x 2.8mm flathead galvanised nails at 150mm centres to all sheet edges and intermediate framing. All sheet edges are to be fixed over solid timber framing. Durabarrier® is to be fixed 12mm from sheet edge and minimum 50mm from sheet

60 Minute Fire Resistance Rating (FRR)

To achieve a 60/60/60 FRR, Durabarrier® must be installed in accordance with the construction details in Section 8.4 and as below:

Interior lining: 13mm GIB® Fyreline fixed as per GIB® (Winstone Wallboards) specification GBTL 60 system from GIB® Fire Rated Systems - Refer to latest version.

Insulation: Knauf Earthwool® glasswool R2.8 insulation, 90mm thickness.

Timber framing: Minimum 90mm deep x 45mm wide, in accordance with NZS 3604 Timber Framed Buildings. Studs at maximum 600mm centres. Noggings at maximum 800mm centres. Double or staggered studs may be used.

Exterior face: Durabarrier® 6mm fixed with 2.8 x 40mm flathead galvanised nails at 150mm centres to all sheet edges and intermediate framing. All sheet edges are to be fixed over solid timber framing. Durabarrier® is to be fixed minimum 12mm from sheet edge and 50mm from sheet corners. Vertical sheet joints to be covered with reinforced aluminium Protecto Wrap Super-Stick.

Timber battens: Treated timber battens 70 x 20mm fixed through Durabarrier® to studs with 2.87 x 65mm ring shank nails at 600mm centres.

External cladding: Duragrid® system.

4.8 Energy Efficiency

Thermal Conductivity

Clause E3 (Internal Moisture) and H1 (Energy Efficiency) of the NZBC mandate minimum energy efficiency for residential and commercial buildings. Architects, engineers, and designers must address thermal heat transfer through the building envelope to optimize running costs.

At equilibrium moisture content, the approximate thermal conductivity of Duragrid® is: 0.23W/mK.

4.9 Weather Resistance

Duragrid® has been tested to NZBC Verification Method E2/VM1 and is suitable for use in specific design wind pressures up to a maximum design differential ultimate limit state (ULS) of 2.5 kPa.

4.10 Weather Barrier

Wall Wrap

The wall wrap and flexible sill/jamb tape must comply with E2/AS1 Table 23 and be installed in accordance with the manufacturer's guidelines before commencing installation of cavity battens and Duragrid® cladding. For stud spacing exceeding 450mm centres, install building underlay support (e.g., polypropylene tape) horizontally over the wall wrap at maximum 300mm vertical centres.

Rigid Air Barrier

In EH wind zones or SED (specific engineered design) wind zones, use Durabarrier®—a robust, vapour permeable rigid air barrier instead of flexible wall wrap. Refer to the Durabarrier® Design & Installation Guide for details.

4.11 Cavity Batten

Overview

The expressed joint location of Duragrid® must to be designed to coincide with framing stud centres. Battens shall only be installed on studs over the weather barrier. The vertical expressed joint must coincide with the centre line of the battens. Structural cavity battens must be joined with a 45° weather cut sloping down and away from Durabarrier or wall wrap.

Layout

At the base of the battens, an Innova Cavity Vent Strip is installed to facilitate airflow, drainage and vermin protection.

The primary cavity batten supports the vertical expressed joint and shall be a 70 x 20mm H3.1 cavity batten.

Intermediate cavity battens can be the same as the primary batten or a 45 x 20mm H3.1 cavity batten.

Cavity battens must be discontinuous across horizontal construction joints.

There is no requirement to prime or pre coat battens prior to installation.

Installation

Structural cavity battens shall be fixed with 2.87 x 65mm RounDrive ring shank galvanised nail or 2.8 x 60mm jolt head galvanised nails. They shall be fixed at maximum 300mm centres and staggered 12mm either side of the batten centre line.

Where Durabarrier® is used, batten nail length must be increased by a minimum of 6mm.

Corners, soffits, junctions, and penetrations such as window and door openings, require specific treatments with typical details outlined in this guide. Additional framing may be required in these areas for the support and fixing of the sheet edges.

Where additional support is needed for flashings or similar components, a short spacer batten can be used. Install with a minimum 5° slope from the horizontal to ensure proper moisture drainage.

Joints must be sealed with Bostik Seal 'n' Flex FC. Ensure cavity batten and panel are correctly orientated and sealant has been applied between battens.

4.12 Fixing Duragrid® to Battens

Duragrid® can be fixed with the following fasteners in all wind zones including Extra High - NZS 3604 - Timber framed buildings.

Table 2: Duragrid® Fastener Centres

Wind Zones (NZS 3604)	Fastener Type and Vertical Centres		
	1.6 x 25mm C brad nail (16ga)	2.8 x 30mm fibre cement nail	10ga x 25mm screw
All wind zones up to EH; Exposure <2.5 kPa ULS	max. 150mm - 10mm from sheet edge	max. 200mm - 15mm from sheet edge	max. 200mm - 18mm from sheet edge

Duragrid® sheet fasteners shall be placed a minimum 10mm for C brads, 15mm for nails and 18mm for screws from sheet vertical edges and 50mm from sheet corners.

All fasteners must be used in conjunction with Bostik Seal 'n' Flex FC. Fasteners shall not be closer than 50mm to the horizontal backing strip or sheet corners.

Duragrid® sheets and cavity battens must be dry and free of dust, prior to the application of Bostik Seal 'n' Flex FC. The adhesive sealant must not be applied at temperatures below 5°C.

Cut sheet edges that are left exposed must be sealed with Innova Edge Sealer prior to sheet installation.

Due to Bostik Seal 'n' Flex FC being a fast cure adhesive, this must only be applied just prior to the installation of the Duragrid® sheets.

Duragrid® must be fixed to the cavity battens via a continuous 6mm bead of Bostik Seal 'n' Flex FC adhesive to all contact surfaces. The primary batten must have 2 x 6mm beads of Seal 'n' Flex FC.

4.13 Fasteners

Fasteners must have the appropriate level of durability and be fully compatible with all other materials required for the intended project. Contact the fastener manufacturer for further information.

Countersinking refers to screw fixing only. Nails shall be driven flush with the surface, except for brad and jolt head nails which shall be driven a maximum 1mm below the surface and finished appropriately.

Pre-countersinking is suggested so that the fastener is sufficiently under the surface, ready for filling with an appropriate filler and sanded smooth. Patch priming and sanding may be required prior to finishing and must be carried out in accordance with coating manufacturers specifications.

Screw countersinking depth for Duragrid® - max 1mm countersink.

When using screws to fasten fibre cement, use a cordless drill driver with torque settings only.

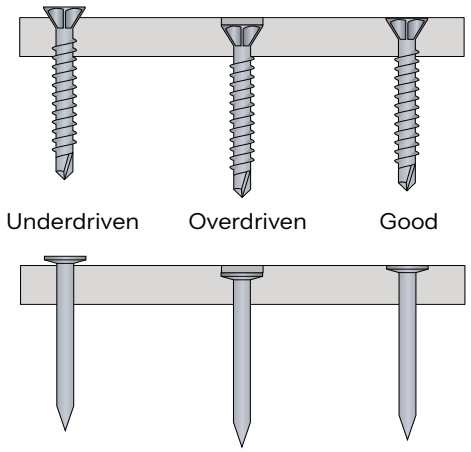


Figure 1: Fastener Positioning

Fasteners must not be under or overdriven.

4.14 Structural Design

Frame, Batten and Fastener Requirements

The construction details in Section 8 show a typical configuration using brad nails. The figures below show alternative fastener configurations. Apply the principles of structural fixity and weathertightness demonstrated below to all details in Section 8 of this document.

- Timber cavity battens must be installed vertically on-stud (fixed directly to studs)
- Refer to Table 2 for detailed information on fastener spacing requirements.

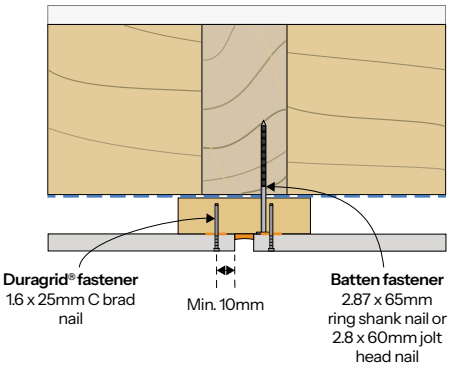


Figure 2 Fastener detail - C brad nail

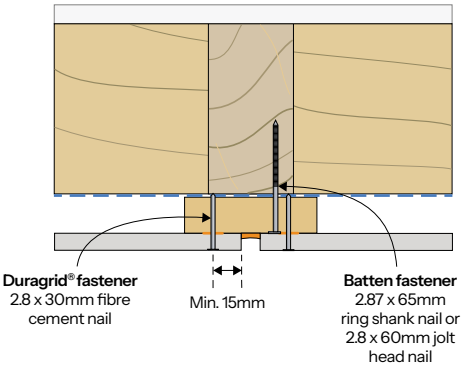


Figure 3 Fastener detail - Fibre cement nail

Refer to Figure 6 for detailed installation information

All fasteners must be used in conjunction with Bostik Seal 'n' Flex

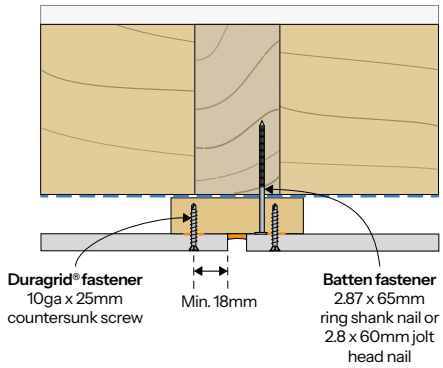
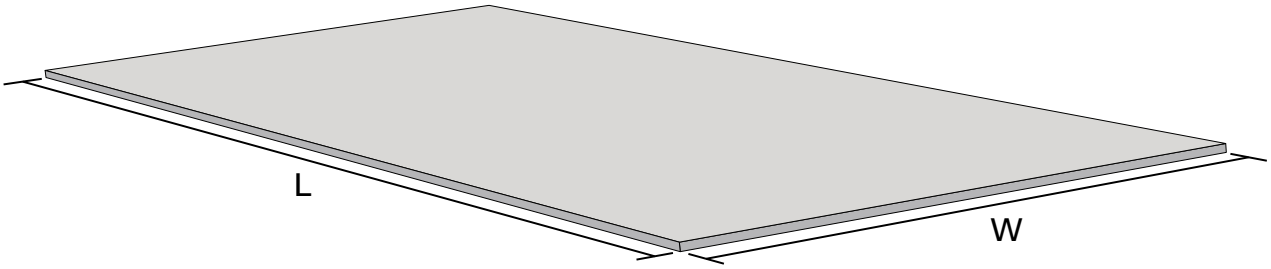


Figure 4 Fastener detail - Countersunk screw

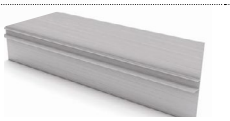
5. Products & Accessories

5.1 Duragrid® Information

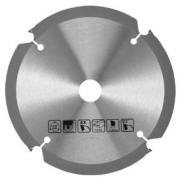


Product	Width (W)	Length (L)	Thickness	Coverage	Mass	Weight	Pack Size	Product Code
Duragrid®	590mm	2390mm	9mm	1.41m²	12.4kg/m²	17.48kg	40	4092588
	890mm	1790mm		1.59m²		19.7kg		4092586
	1190mm	1190mm		1.41m²		17.48kg		4092585
	1190mm	2990mm		2.84m²		35.26kg		4092589

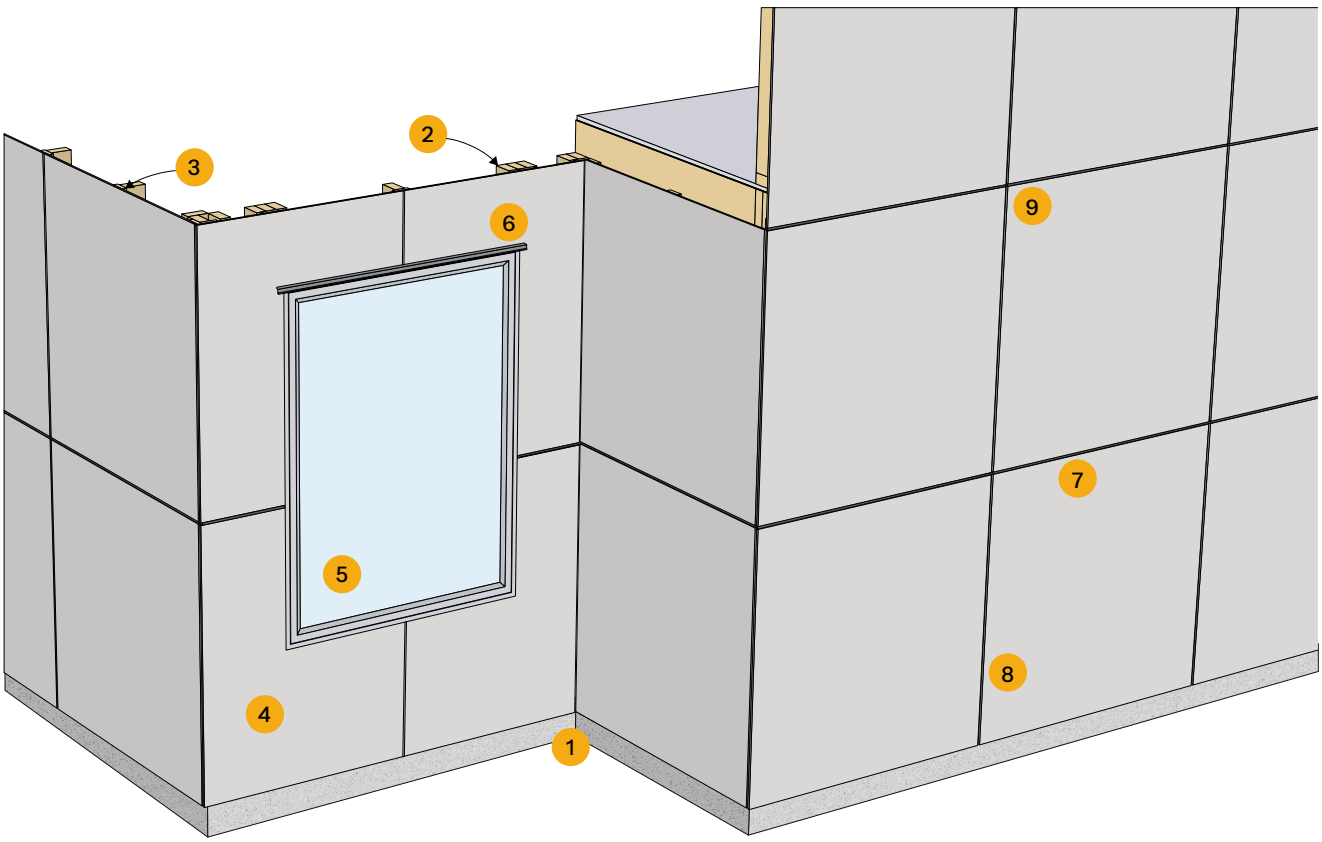
5.2 Accessories Supplied by Innova

Product	Description	Size	Product Code
	H3.1 Timber cavity batten	20 x 70 x 5400mm	4092902
	uPVC Cavity vent strip	19 x 2700mm	4092887
	Innova edge sealer	400g	4092899
	Horizontal backing strip	3000mm	4094033

5.3 Accessories by Others

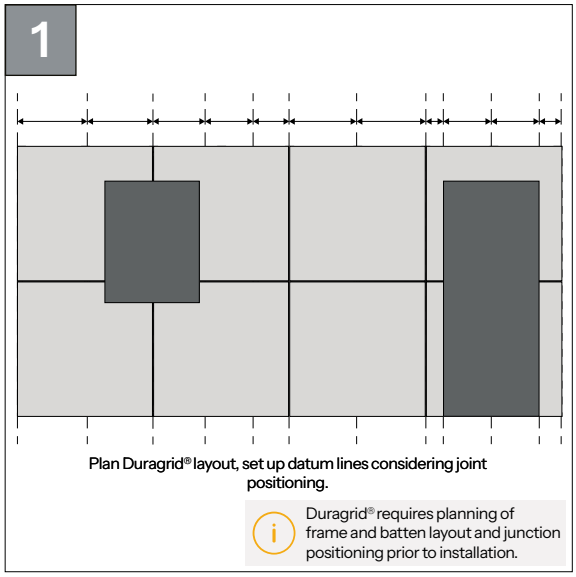
Product	Description	Size
	Bostik Seal ‘n’ Flex FC (Sealant / Adhesive)	600ml
	Bostik Safe Seal or any BRANZ Appraised paintable sealant	600ml
	H3.1 Timber cavity batten (intermediate cavity batten)	Nom. 20 x 45mm
	Tungsten carbide countersinking tool	
Nails for timber cavity batten		
	HDG Roundrive ring shank nail	2.87 x 65mm
	HDG Jolt head nail	2.8 x 60mm
Nails for Duragrid®		
	Stainless C-brad nail	1.6 x 25mm
	HDG or stainless fibre cement nail	2.8 x 30mm
Screws for Duragrid®		
	Class 4 or stainless countersunk wood screw	10ga x 25mm
Hand Operated Tools		
	Score and snap knife	
	Hand guillotine	
Power Tools		
	Fibre cement shears	
	4T or 6T PCD fibre cement blade	
	Plunge/track saw, circular saw fitted with dust extraction port	
	Class M or H vacuum	

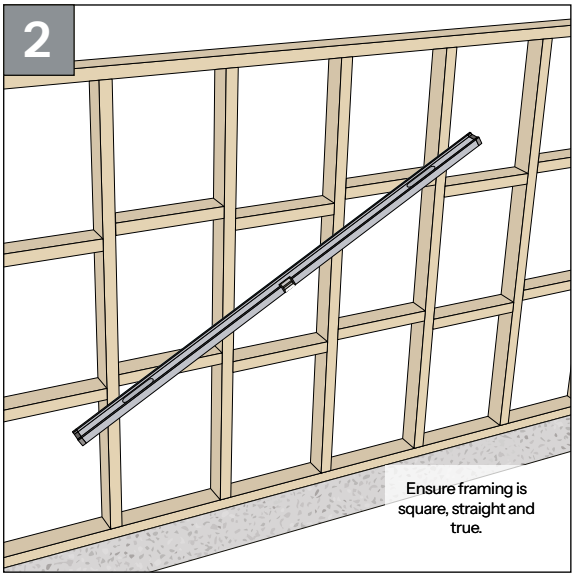
6. System Overview

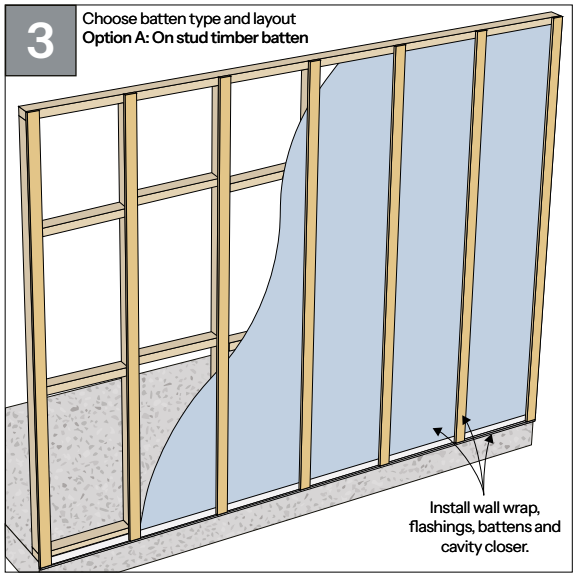


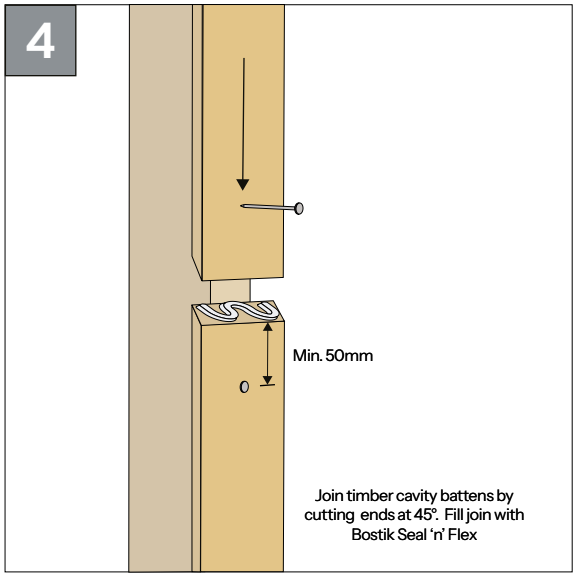
1. **Foundation** (concrete or timber)
2. **Primary frame** (timber)
3. **Timber cavity batten**
4. **Duragrid®**
5. **Window**
6. **Head flashing**
7. **Horizontal backing strip**
8. **Vertical expressed joint**
9. **Mid floor junction**

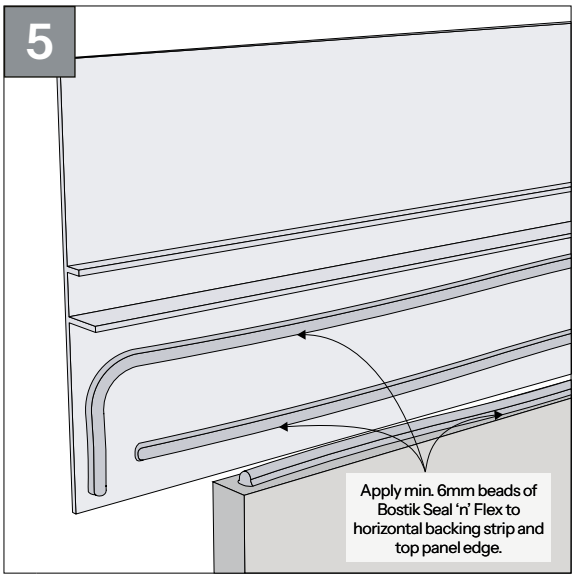
7. Installation

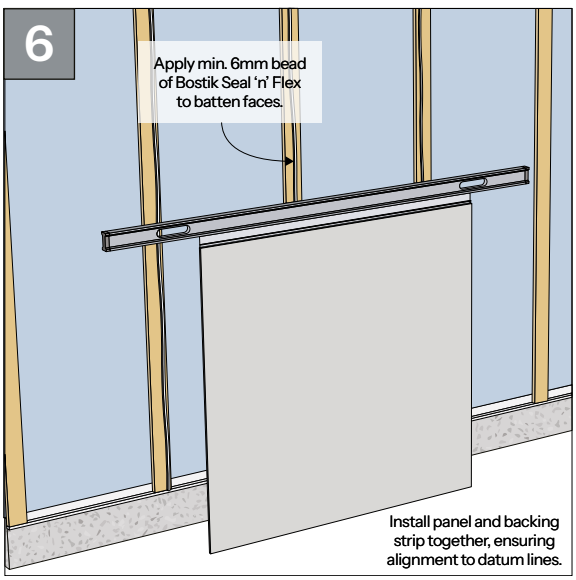




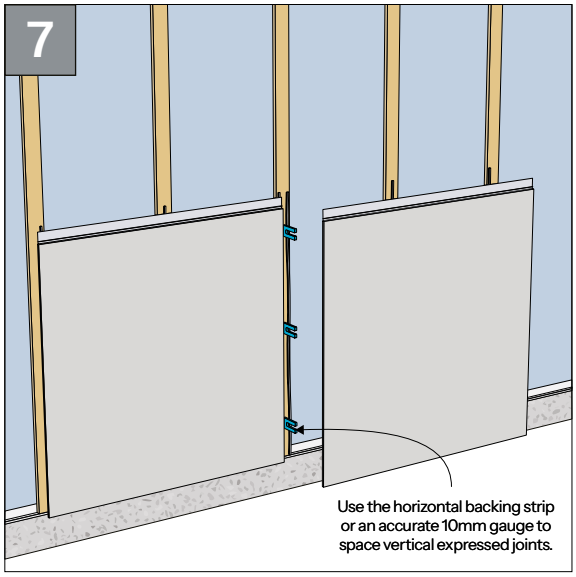


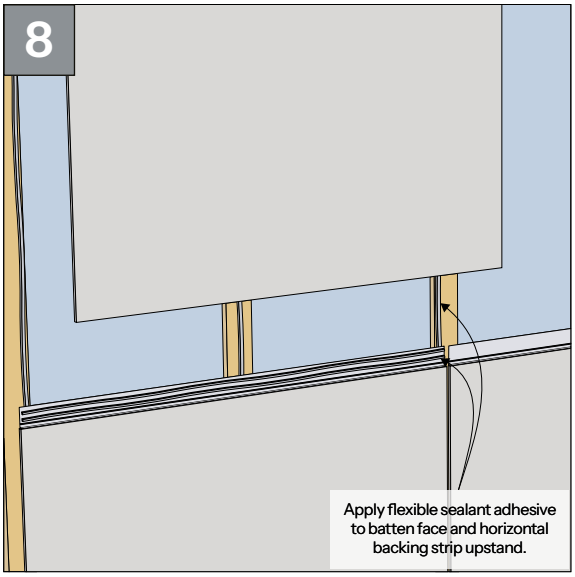


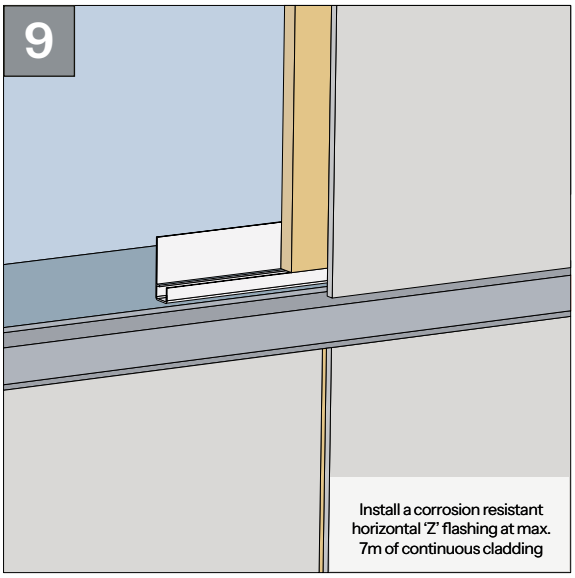


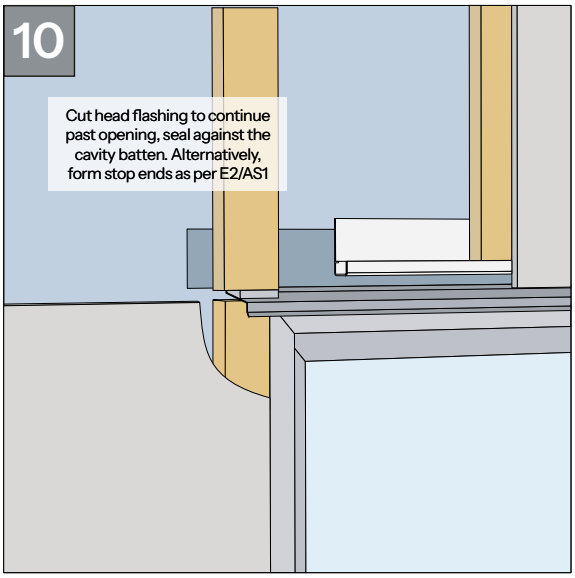


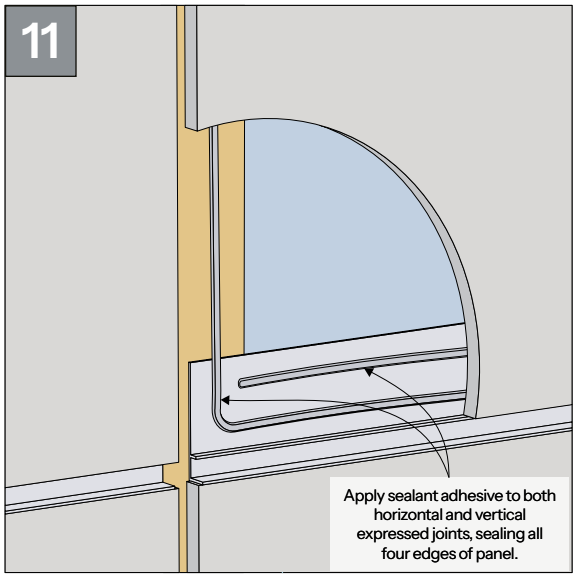
7. Installation

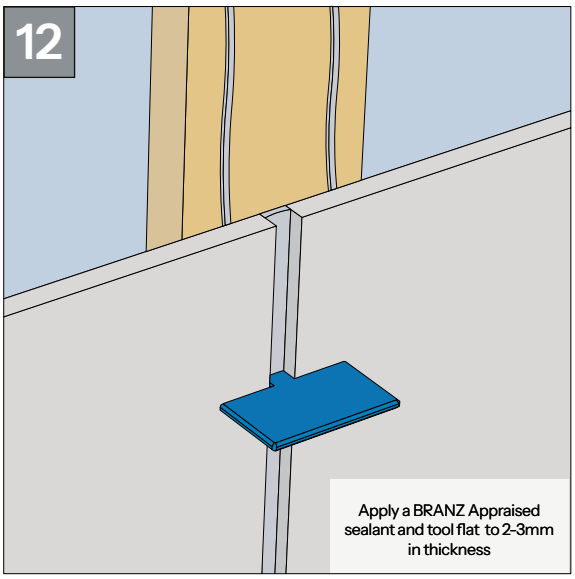












8. Construction Details

8.1 Frame & Cavity Batten Layout

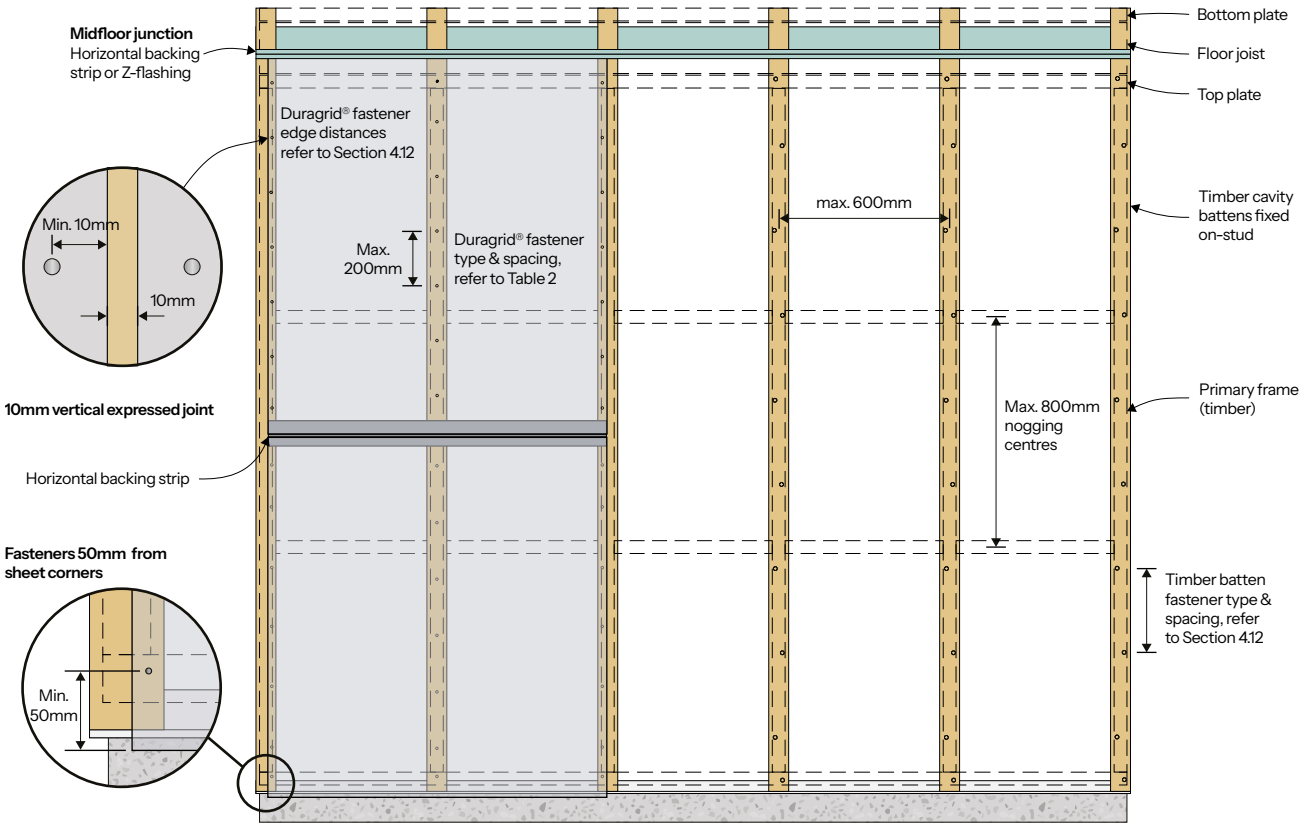


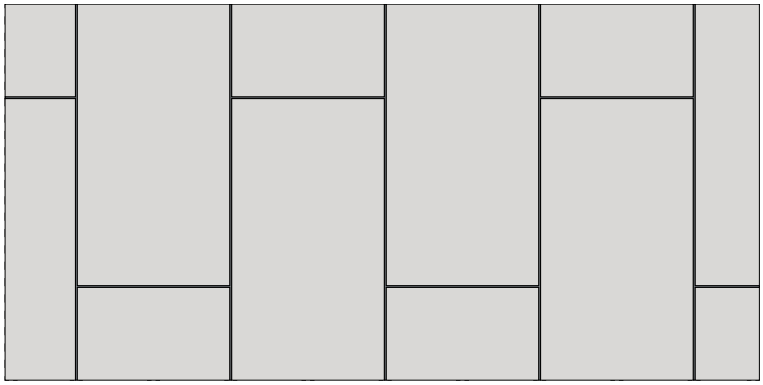
Figure 5 On-stud timber batten layout Elevation

Wall wrap & sealant omitted for clarity.

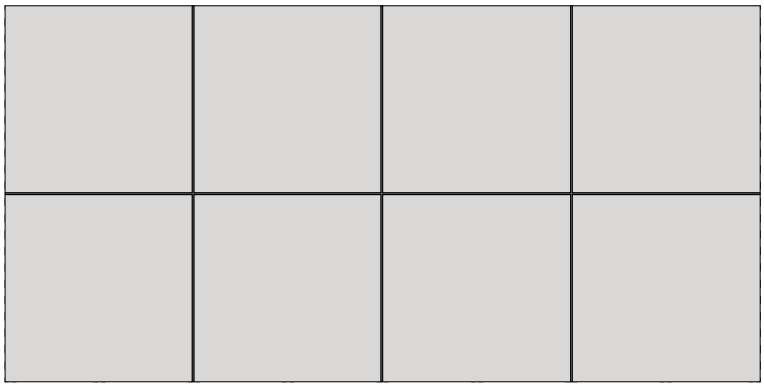
Z-Flashing required at max. 7m height of continuous cladding.

8. Construction Details

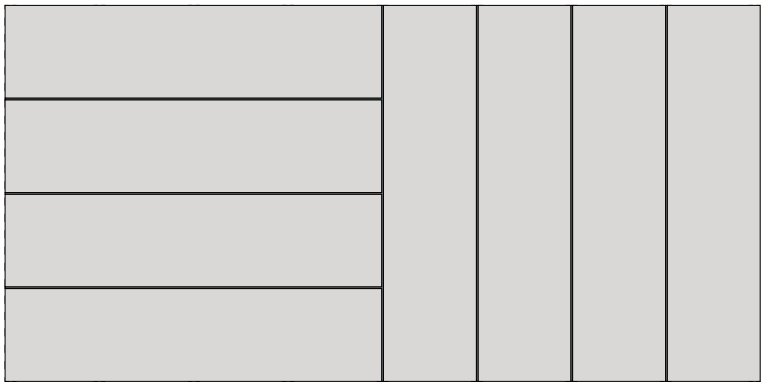
8.2 Duragrid® Layout Options



Vertical orientation | Offset pattern | 1790mm x 890mm Sheets



Square pattern | 1190mm x 1190mm Sheets



Horizontal & vertical orientation | Stackbond pattern | 2390mm x 590mm Sheets

Horizontal orientation | Offset pattern | 2990mm x 1190mm Sheets

8. Construction Details

8.3 Details

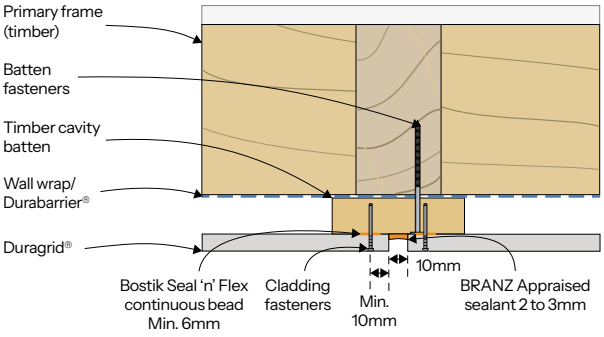


Figure 6 Vertical expressed joint detail - Timber batten Plan

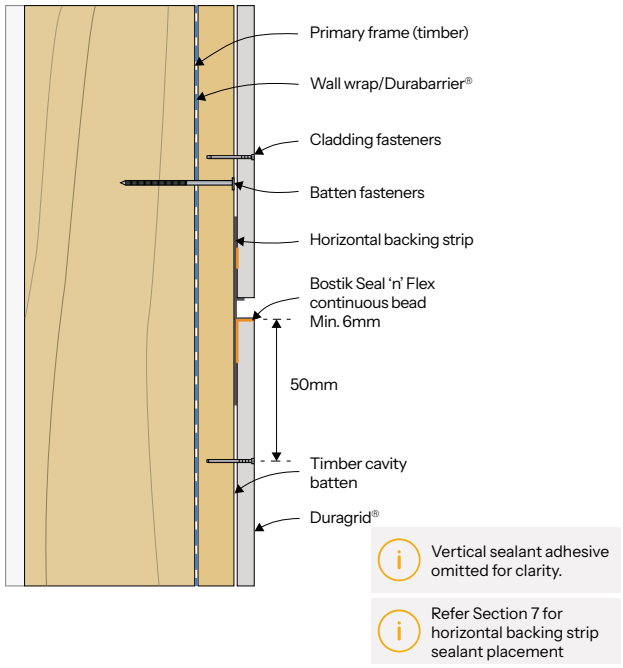


Figure 7 Horizontal expressed joint detail Section

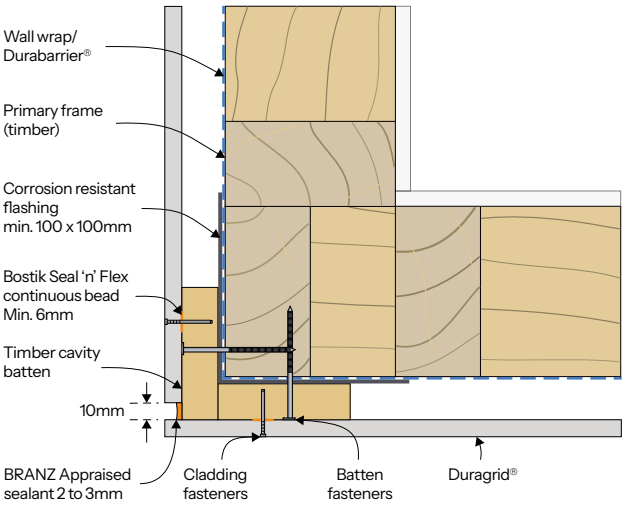


Figure 8 External corner expressed joint detail Plan

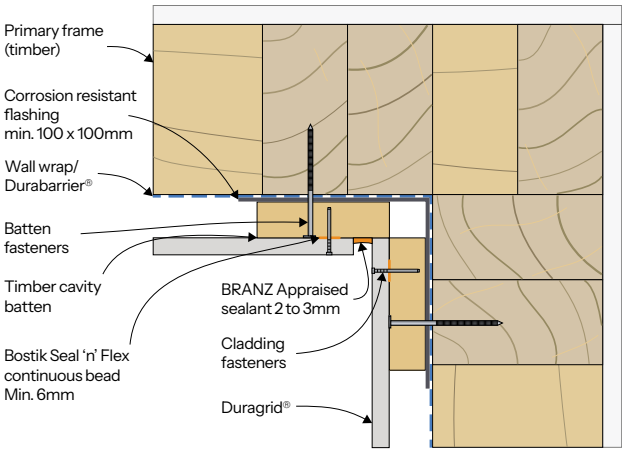


Figure 9 Internal corner expressed joint detail Plan

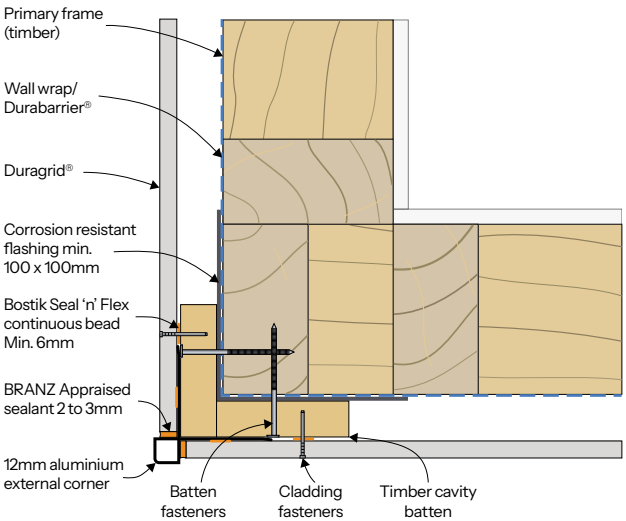


Figure 10 Aluminium external corner detail Plan

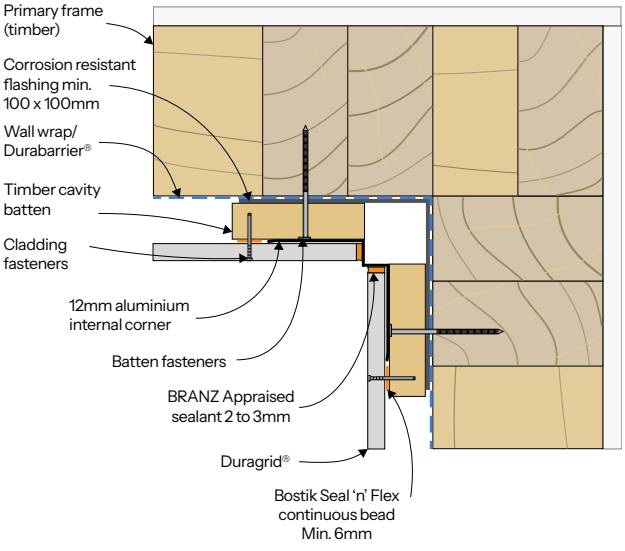


Figure 11 Aluminium internal corner detail Plan

8. Construction Details

8.3 Details

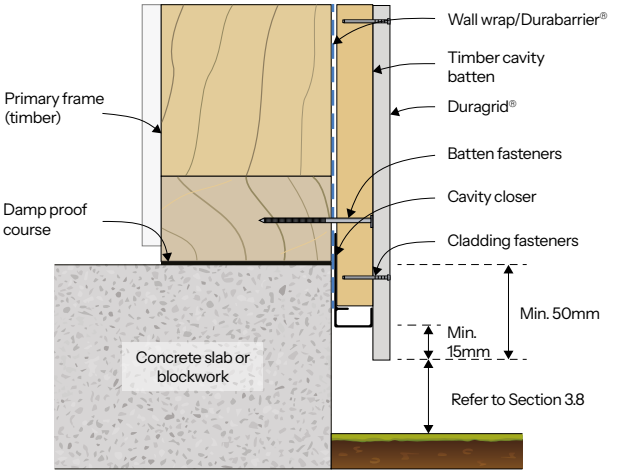


Figure 12 Slab edge detail Section

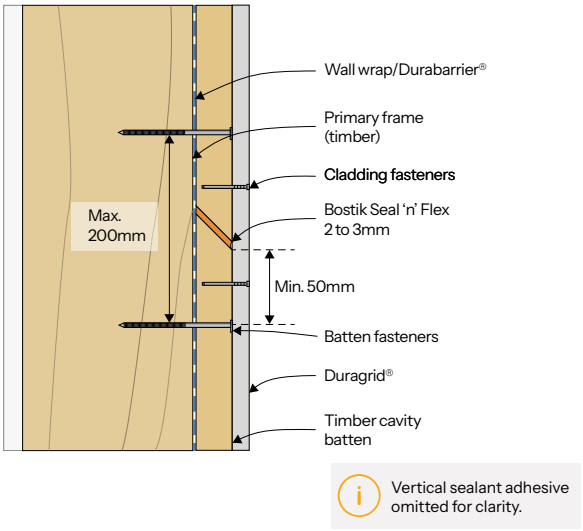


Figure 13 Timber batten joint Section

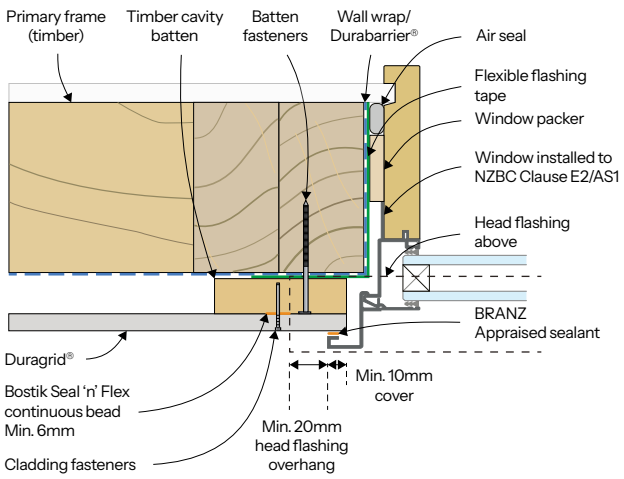


Figure 14 Window jamb detail Plan

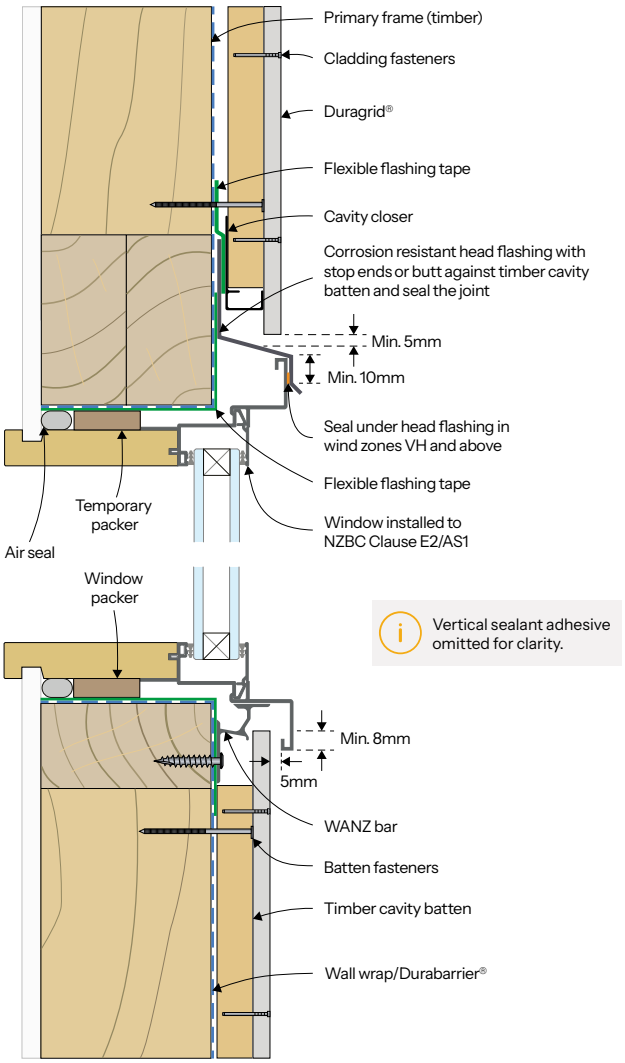


Figure 15 Window head & sill detail Section

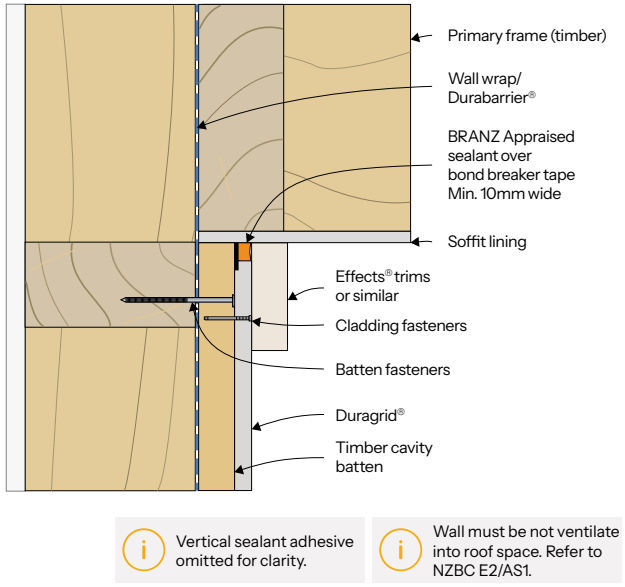


Figure 16 Soffit/wall junction detail Section

8. Construction Details

8.3 Details

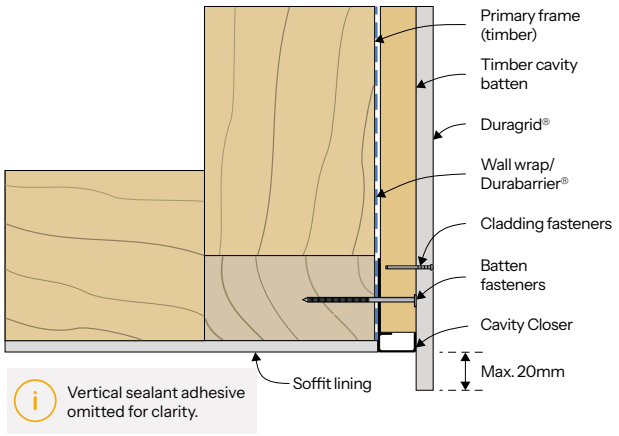


Figure 17 Cantilever wall/soffit detail Section

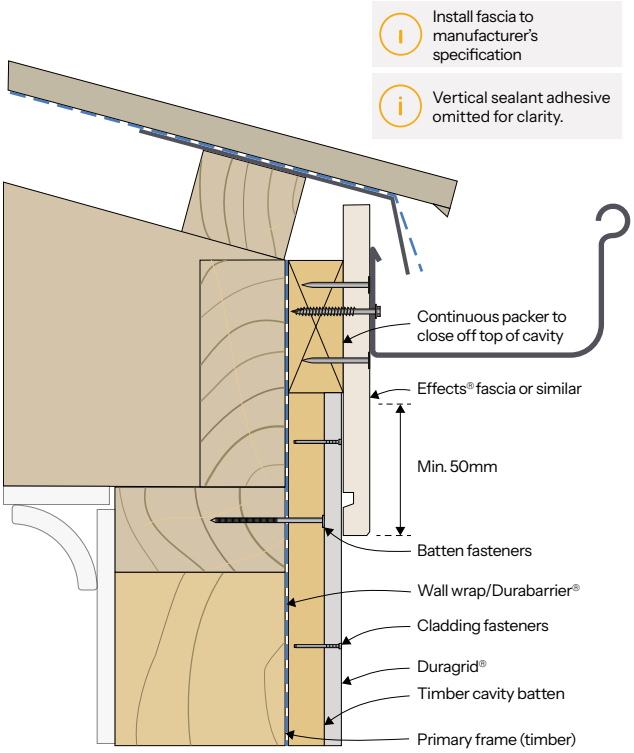


Figure 18 Wall/fascia junction detail Section

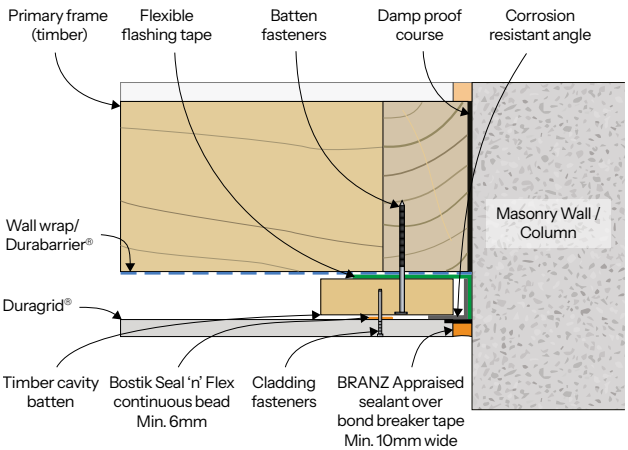


Figure 19 Wall/column abutment detail Plan

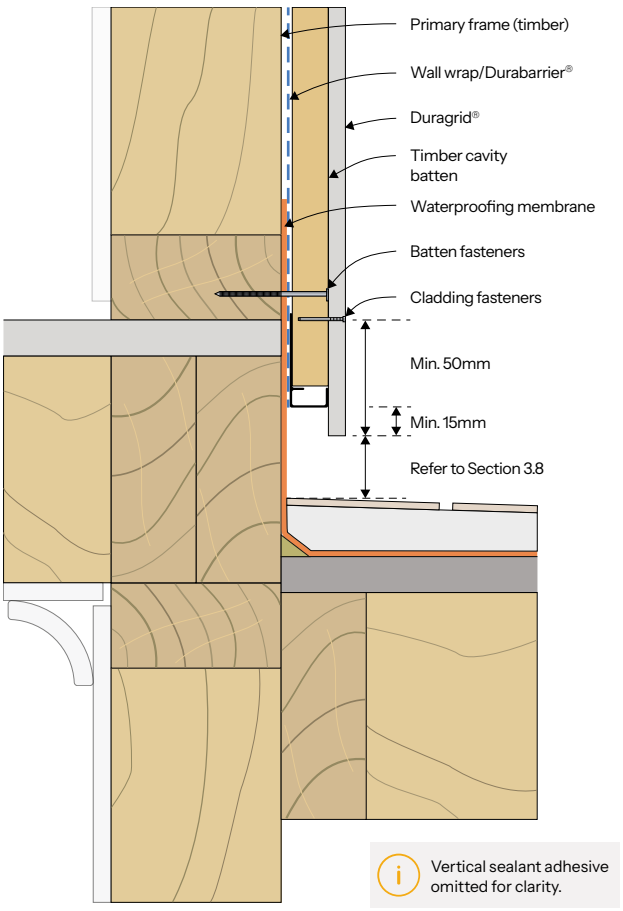


Figure 20 Enclosed balcony detail Section

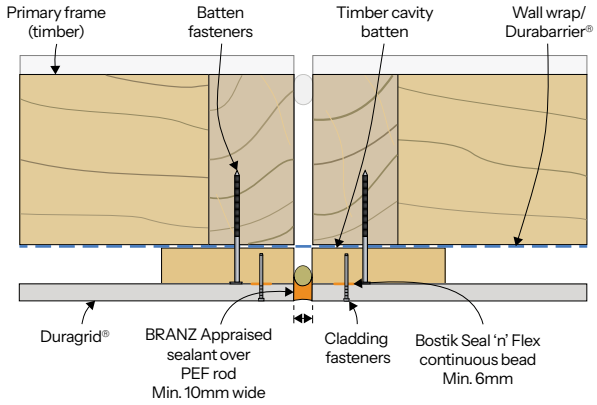


Figure 21 Vertical control joint detail Plan

8. Construction Details

8.3 Details

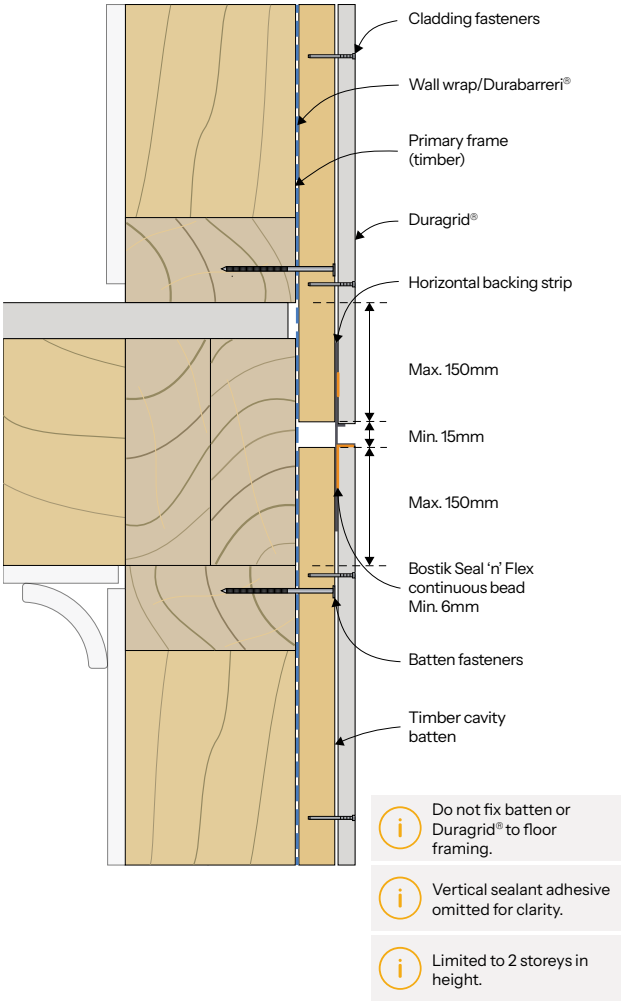


Figure 22 Midfloor junction detail Section

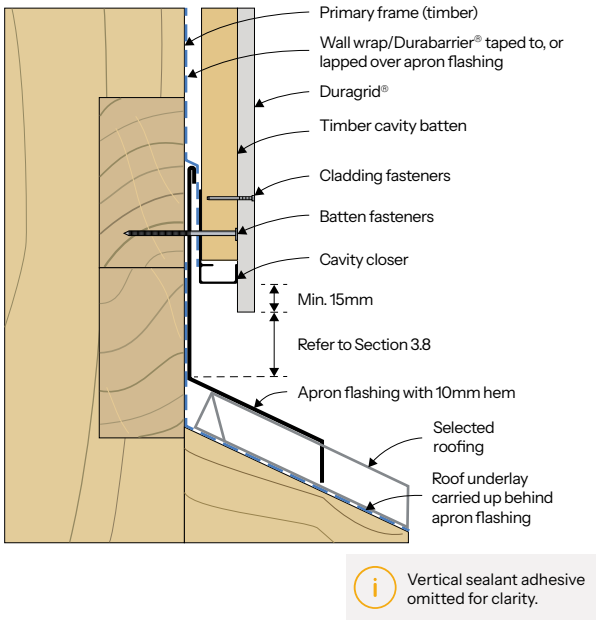


Figure 23 Transverse apron flashing detail Section

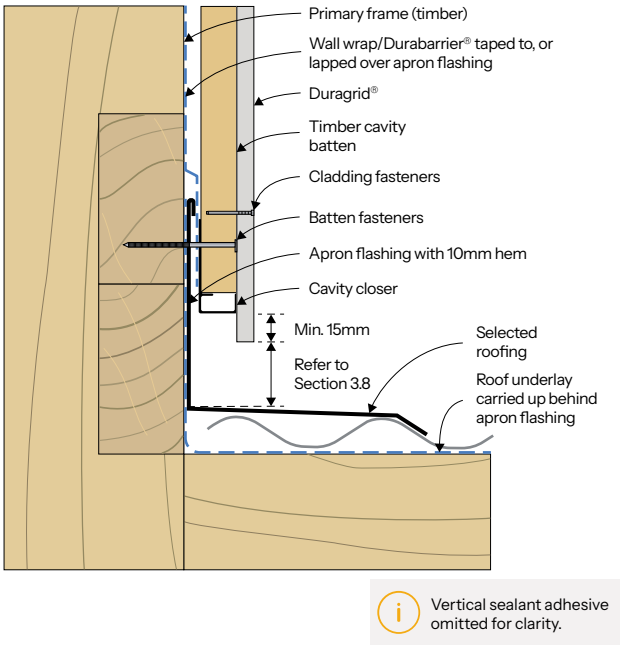


Figure 24 Parallel apron flashing detail Section

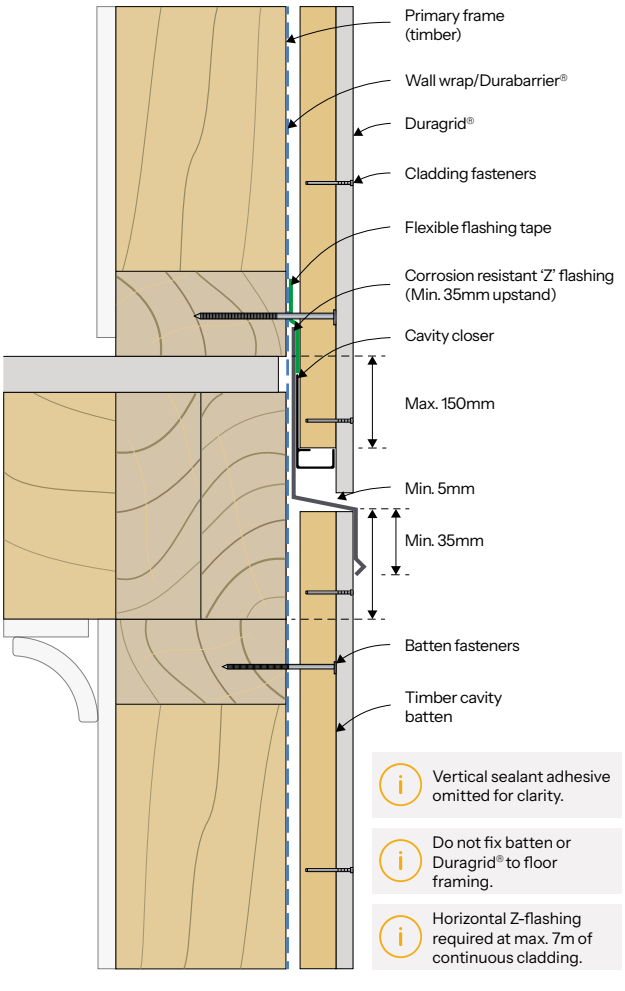


Figure 25 Drained midfloor junction detail Section

8. Construction Details

8.3 Details

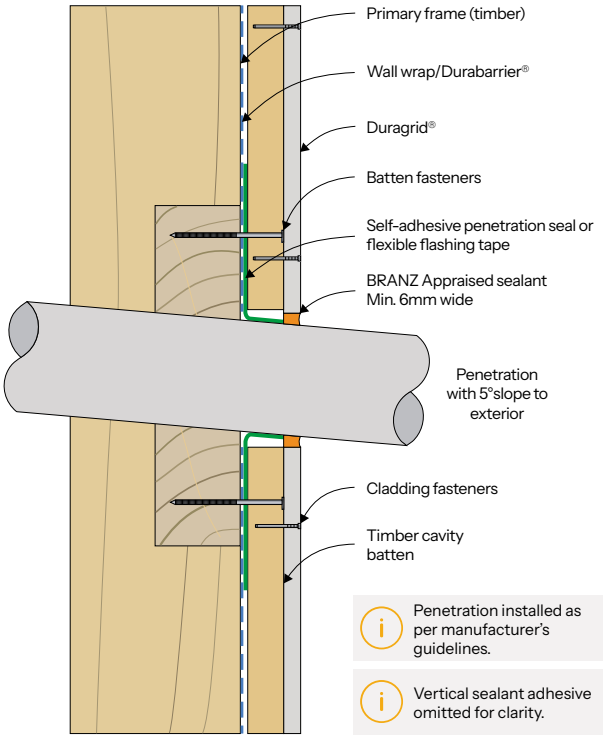


Figure 26 Penetration detail Section

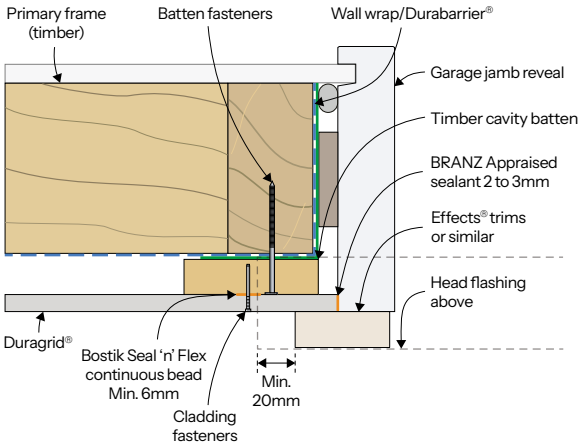


Figure 28 Garage door jamb detail Plan

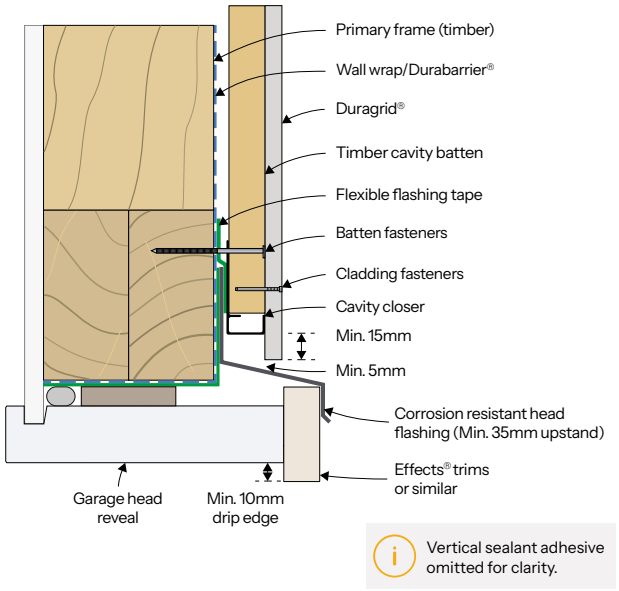


Figure 29 Garage door head detail Section

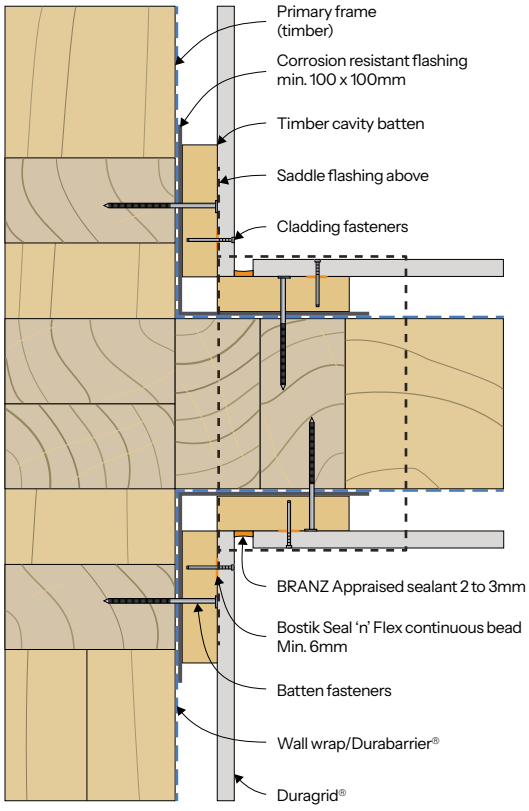


Figure 27 Enclosed balustrade to wall junction detail Plan

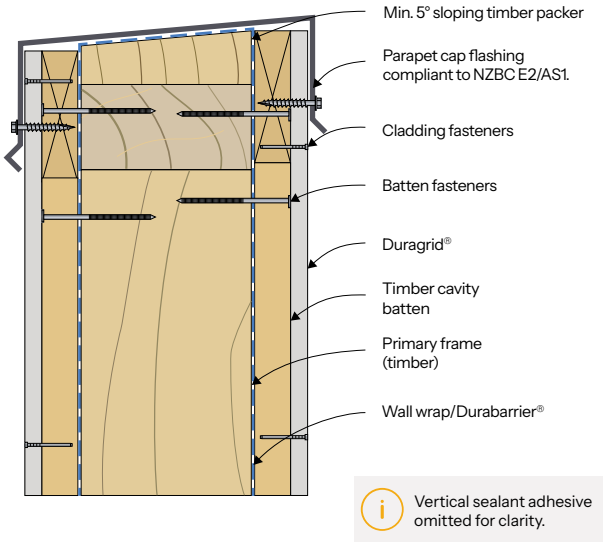


Figure 30 Parapet detail Section

8. Construction Details

8.4 Fire Resistance Rating (FRR) Systems

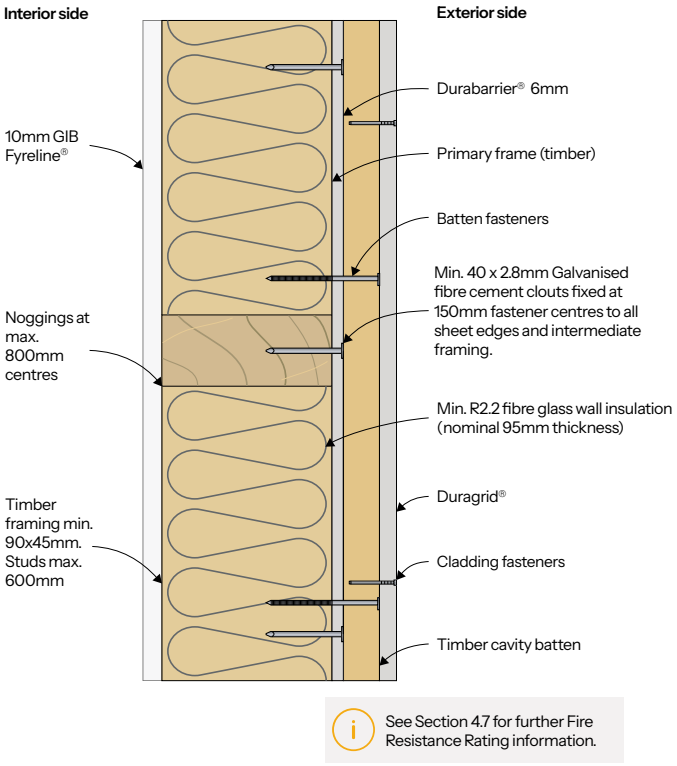


Figure 31 Fire Resistance Rating (FRR) system - 30/30/30

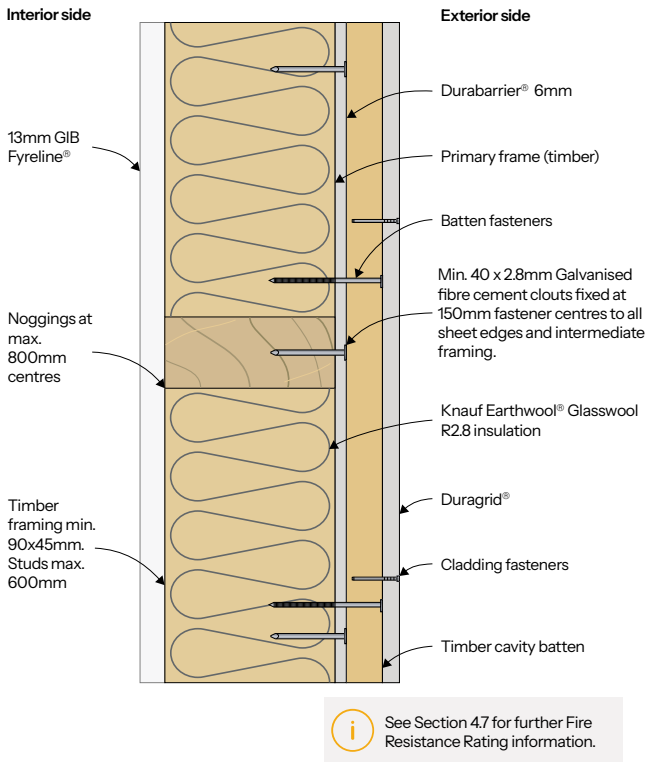


Figure 32 Fire Resistance Rating (FRR) system - 60/60/60

9. Finishing

9.1 General

Ensure that Duragrid® is clean, sound and dry prior to applying the selected coating system.

Duragrid®, must be finished according to the coating manufacturer's instructions within three months following delivery to site. In coastal or corrosive environments, Duragrid® must be finished immediately after installation to minimise contamination build up on the surface.

Apply all coats as per the coating manufacturers recommendation.

Low sheen paint finishes are less reflective than gloss finishes. Consider using lower sheen coatings as they scatter light, minimizing the likelihood of visual issues such as unevenness or patchy areas. Consult with the coating manufacturer to identify appropriate finishes.

Duragrid® can be painted using dark colours, however, be aware that in some applications this can lead to excessive thermal movement within the wall frame that can affect internal and external linings.

Lighter shades tend to be more lenient when it comes to concealing surface imperfections. Additionally, they absorb less heat, which reduces the strain on the cladding.

9.2 Lighting

Unless specifically outlined in the contract specifications, imperfections that are only visible under critical light do not indicate defective materials or workmanship.

Critical lighting, also known as glancing light, occurs when sunlight or intense artificial light strikes a surface at a low angle, typically 15° or less. This low-angle illumination casts shadows from minor surface variations, highlighting imperfections that are less noticeable under diffused lighting.

Externally, critical light is common during early morning or late afternoon when the sun is low on the horizon, typically lasting 30 to 60 minutes. Internally, it may result from intense or angled artificial lighting, which accentuates imperfections on reflective surfaces.

Variations in color, texture, and finish of surfaces, including walls, ceilings, and floors, should be assessed from a standard viewing position. This is defined by the MBIE document - Guide to Standards & Tolerances, as an unobstructed viewing angle of 45° or more, looking at the surface from a distance of at least 2 meters with the surface being lit by non-critical light, or if indoors with a uniform typical level of lighting.

Minor discrepancies in colour and finishing of materials are not considered defects.

9.3 Maintenance

Duragrid® when used in accordance with this literature requires no direct maintenance. To ensure integrity is maintained, annual inspections should be carried out.

The maintenance requirements shall be established by the designer, taking into account the specific location, climate, and environmental conditions.

As a guide, below are some suggested general routine maintenance tasks:

- Wash down the exterior surfaces with water and mild detergent every 6-12 months – garden hose pressure and soft bristle brush only.
- Regular checks to ensure that fasteners are properly holding the cladding to the structure.
- Inspect flashings and sealant joints. Flashings and sealants must continue to perform their function as designed.
- Ensure guttering and downpipes and overflows are maintained and clear of debris.
- Check ground clearances are maintained.
- Trim back vegetation that is near or in contact with the building.
- Follow coating manufacturers recommendations on cleaning and recoating procedures relating to coating durability.

Fibre cement specialists.
Built on change.

Adelaide
+61 8 8480 1700

Brisbane
+61 7 3548 8400

Melbourne
+61 3 9492 1700

Perth
+61 8 9311 5500

Sydney
+61 2 8107 9500

New Zealand
09 273 1457

Free Phone
0800 424 234

Technical Assistance
innovatechnical@etexgroup.com

innovafibrecement.co.nz
@innovafibrecement

INNOVA by etex