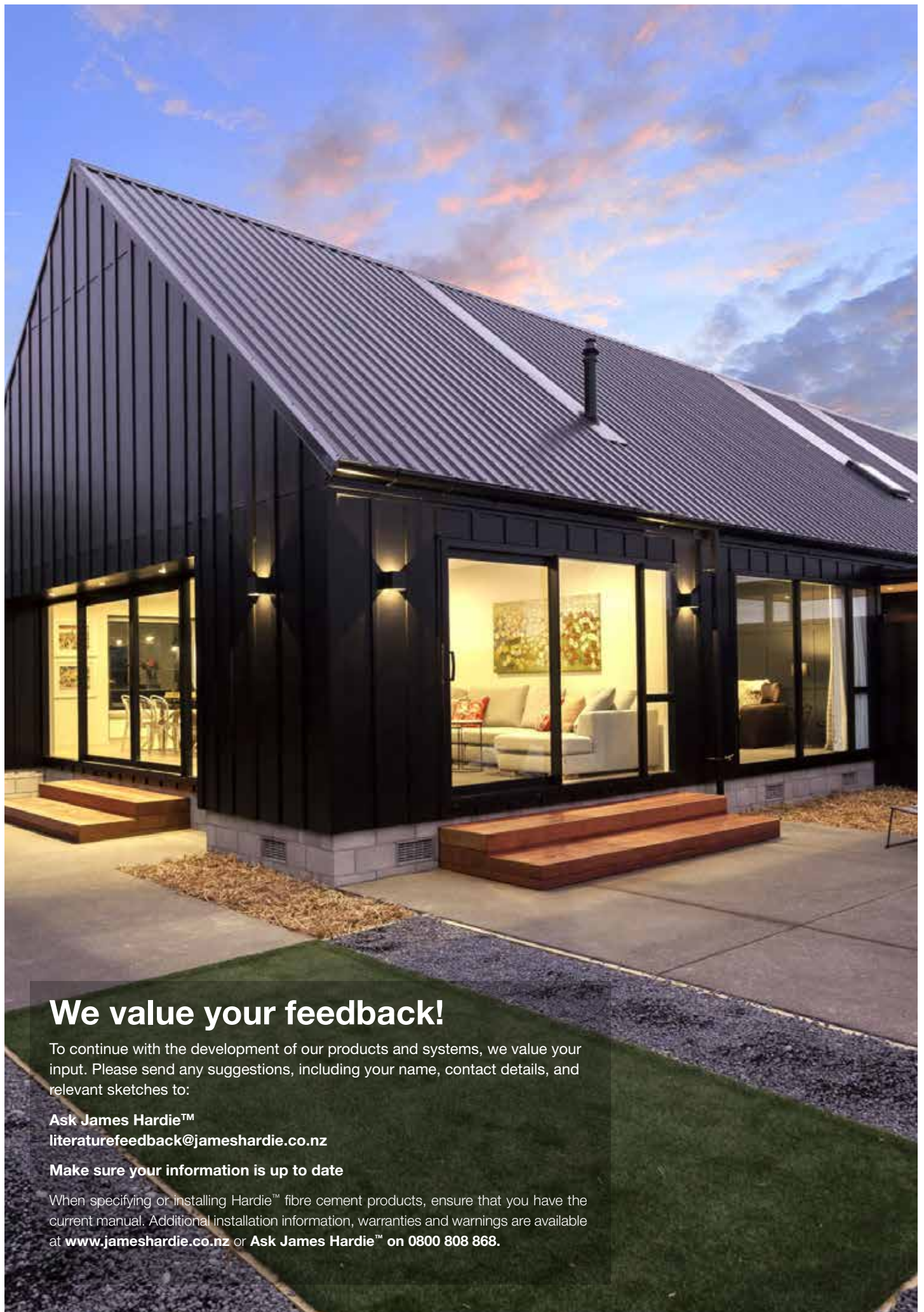


# Hardie™ Flex Sheet

Technical Specification

**July 2026** New Zealand





## We value your feedback!

To continue with the development of our products and systems, we value your input. Please send any suggestions, including your name, contact details, and relevant sketches to:

**Ask James Hardie™**  
[literaturefeedback@jameshardie.co.nz](mailto:literaturefeedback@jameshardie.co.nz)

### **Make sure your information is up to date**

When specifying or installing Hardie™ fibre cement products, ensure that you have the current manual. Additional installation information, warranties and warnings are available at [www.jameshardie.co.nz](http://www.jameshardie.co.nz) or **Ask James Hardie™** on 0800 808 868.

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# 1 Product Information

## 1.1 Manufacturing and Classification

Hardie™ Flex Sheet are a cellulose fibre reinforced cement building product. The basic composition is Portland cement, ground sand, cellulose fibre, water and proprietary additives. The sheets are easily identified by the name 'Hardie™ Flex' printed on the back face of sheet.

Hardie™ Flex Sheet are manufactured in Australia to AS/NZS 2908.2 'Cellulose-Cement Products Part 2: Flat Sheets' (ISO 8336 'Fibre Cement Flat Sheets') standards in New Zealand. James Hardie is an ISO 9001 certified manufacturer. Hardie™ Flex Sheet are classified Type A, Category 3 in accordance with AS/NZS 2908.2 'Cellulose-Cement Products'.

For Safety Data Sheets (SDS) visit [www.jameshardie.co.nz](http://www.jameshardie.co.nz) or Ask James Hardie on 0800 808 868.

## 1.2 Product Mass

Hardie™ Flex Sheet are manufactured in a 6.0mm thickness with a Mass of 8.6 kg/m<sup>2</sup> at EMC.

Hardie™ Flex Sheet are defined as a Light Weight Wall Cladding (not exceeding 30kg/m<sup>2</sup>) as per NZS 3604.

## 1.3 Sheet Sizes

Available sizes of Hardie™ Flex Sheet are specified in Table 1.

**Table 1**

| Sheet sizes |            |              |
|-------------|------------|--------------|
| Size        |            | Product Code |
| Length (mm) | Width (mm) |              |
| 2400        | 1200       | 400172       |
| 2700        | 1200       | 400170       |
| 3000        | 1200       | 400168       |

## 1.4 Durability

Hardie™ Flex Sheet, when installed and maintained as per the technical specification, will meet the durability requirements for claddings as required in the NZBC Approved Document B2 'Durability'.

### 1.4.1 Resistance to moisture/rotting

Hardie™ Flex Sheet demonstrate resistance to permanent moisture induced deterioration (rotting) and has passed the following tests in accordance with AS/NZS 2908.2:

- Heat Rain (Clause 6.5)
- Water Permeability (Clause 8.2.2)
- Warm Water (Clause 8.2.4)
- Soak Dry (Clause 8.2.5)

### 1.4.2 Fire performance

Hardie™ Flex Sheet has been tested/assessed to AS/NZS 3837 and is suitable for use where non-combustible materials are specified.

### 1.4.3 Alpine regions

In regions subject to freeze/thaw conditions, Hardie™ Flex Sheet must not stay in direct contact with snow or ice build up for extended periods, e.g. external walls in alpine regions must be protected where snow drifts over winter are expected.

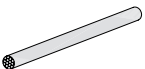
The Hardie™ Flex Sheet has been tested in accordance with AS/NZS 2908.2 Clause 8.2.3.

## 1.5 Components and Accessories

Table 2

| Accessories/tools supplied by James Hardie                                          |                                                 |                                |                                   |                                           |
|-------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------------------|
| Accessory                                                                           |                                                 | Code                           | Size (mm)                         | Material/appearance                       |
|    | 6mm Cap<br>2400<br>3000                         | <b>300539</b><br><b>300540</b> | 2400 long<br>3000 long            | uPVC/Bone colour                          |
|    | 6mm Horizontal Flashing                         | <b>302254</b>                  | 3000 long                         | uPVC/Bone colour                          |
|   | 6mm Hardie™ Jointer<br>2400<br>3000             | <b>300730</b><br><b>300734</b> | 2400 long<br>3000 long            | uPVC/Bone colour                          |
|  | Vent Strip                                      | <b>302490</b>                  | 3000 long                         | uPVC                                      |
|  | Horizontal Flashing Jointer                     | <b>301921</b>                  | 100 long                          | uPVC/Bone colour                          |
|  | Corner Flashing Jointer                         | <b>301920</b>                  | 50 x 50                           | uPVC/Bone colour                          |
|  | Inseal 3259 1.5mm thick<br>48mm<br>80mm         | <b>300767</b><br><b>300769</b> | 50m roll<br>50m roll              | Black Compressible Foam                   |
|  | Hardie™ Flex Nail - 5kg                         | <b>302782</b><br><b>302784</b> | 60 x 3.15mm x<br>6.8mmø head size | 316 Stainless Steel<br>Hot Dip Galvanised |
|  | Hardie™ Flex nail - 5kg                         | <b>304253</b><br><b>304251</b> | 75 x 3.15mm                       | 316 Stainless Steel<br>Hot Dip Galvanised |
|  | Hardie™ Blade Saw Blade                         | <b>300660</b>                  | 4 tooth — 184mm                   | Diamond Tipped                            |
|  | Corner Underflashing<br>50 x 50mm               | <b>303745</b>                  | 3000 long                         | uPVC/Bone colour                          |
|  | 2 piece Internal Corner                         | <b>305756</b>                  | 3000 long                         | uPVC/Bone colour                          |
|  | 2 piece External Corner                         | <b>305755</b>                  | 3000 long                         | uPVC/Bone colour                          |
|  | Hardie™ Knife<br>Scoring tool for easy cutting. | <b>305926</b>                  |                                   |                                           |
|  | Hardie™ Axent™ Trim 89mm                        | <b>405258</b>                  | 89 x 3000 long                    |                                           |
|                                                                                     | Hardie™ Axent™ Trim 70mm                        | <b>405257</b>                  | 70 x 3000 long                    |                                           |
|                                                                                     | Hardie™ Axent™ Trim 45mm                        | <b>405260</b>                  | 45 x 3000 long                    |                                           |

Table 3

| Accessories not supplied by James Hardie                                                                                                                                                                                                                             |                                                                                                       |                                                 |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------|
| James Hardie recommends the following products for use in conjunction with its Hardie™ Flex Sheet. James Hardie does not supply these products. Please contact component manufacturer for information on their warranties and further information on their products. |                                                                                                       |                                                 |                     |
|                                                                                                                                                                                                                                                                      | Accessory                                                                                             | Size (mm)                                       | Material/appearance |
|                                                                                                                                                                                     | Hardie™ Flex nail/Fibre Cement nail                                                                   | 40 x 2.8mm                                      | 316 Stainless Steel |
|                                                                                                                                                                                     | Hardie™ Flex nail/Fibre Cement nail                                                                   | 40 x 2.8mm                                      | Hot Dip Galvanised  |
|                                                                                                                                                                                     | Sikaflex® AT-Facade or similar                                                                        | Tube                                            |                     |
|                                                                                                                                                                                    | PEF rod<br>Sika® Boom or similar                                                                      | Polyethylene foam                               |                     |
|                                                                                                                                                                                   | Flashing tape                                                                                         | Proprietary tape to adhere to flexible underlay |                     |
|                                                                                                                                                                                   | <b>Flexible underlay</b><br>Must comply with Table C.2.1.1 of E2/AS1.                                 |                                                 |                     |
|                                                                                                                                                                                   | <b>Penetration Seals</b><br><br>Thermakraft™: 0800 806 595<br><br>Marshall Innovations: 0800 776 9727 |                                                 |                     |

# 2 Application and scope

## 2.1 Application

Hardie™ Flex Sheet is a paneled light weight wall cladding solution for residential and light commercial buildings.

- Hardie™ Flex Sheet is ideal for many general building purposes such as wall cladding, wide soffits, porches and gable ends etc.
- Hardie™ Flex Sheet is a natural unsanded sheet and is suitable for a paint finish. A variety of jointing methods can be used to achieve the desired look.

### Specifiers

If you are a specifier or other responsible party for a project ensure that the information in this document is appropriate for the application you are planning and that you undertake specific design and detailing for areas which fall outside the scope of these specifications.

### Installers

If you are an installer, ensure that you follow the design, moisture management principles, associated figures and material selection provided by the designer and this Technical Specification. All the details provided in this document must be read in conjunction with the project specification.

### Make sure your information is up to date

When specifying or installing Hardie™ fibre cement products, ensure you have the current manual. If you're not sure you do, or you need more information, visit [www.jameshardie.co.nz](http://www.jameshardie.co.nz) or Ask James Hardie™ on 0800 808 868.

## 2.2 Scope

The scope of this specification is for the use of Hardie™ Flex Sheet limited to buildings which fall within the scope limitations of New Zealand Building Code (NZBC) Acceptable Solution 'E2/AS1' paragraph 1.1. This manual covers the use of Hardie™ Flex Sheet for either construction methods i.e. direct fixed or cavity, used in external walls of timber framed buildings. Please refer to 'E2/AS1' for further information regarding the selection of construction methods for claddings.

This document is intended for use by architects, designers and specifiers who may be involved with the specification of Hardie™ Flex Sheet.

## 2.3 Details

Various Hardie™ Flex Sheet details are provided in the Details section of this document. This specification and details in CAD file are also available to download from our web site at [www.jameshardie.co.nz](http://www.jameshardie.co.nz).

## 2.4 Specific Design

For use of Hardie™ Flex Sheet outside the scope of this document, the architect, designer or engineer must undertake specific design. For advice on designs outside the scope of this specification, Ask James Hardie™ on 0800 808 868.

# 3 Design

## 3.1 Compliance

Hardie™ Flex Sheet complies with section 9.7.2 of 'E2/AS1'. Information contained in this document is aligned with the requirements of NZBC Acceptable Solution 'E2/AS1'.

## 3.2 Responsibility

The specifier or other party responsible for the project must run through a risk matrix analysis to determine which construction method is to be used. The designer must also ensure that the figures published in this specification are appropriate for the intended application and that additional detailing is performed for specific design or any areas that fall outside the scope of this specification. The designers should ensure that the intent of their design meets the requirements of the NZBC.

All dimensions shown are in millimetres unless noted otherwise. All New Zealand Standards reference in this manual are current edition and must be complied with.

James Hardie conducts stringent quality checks to ensure that any product manufactured falls within our quality spectrum. It is the responsibility of the builder to ensure that the product meets aesthetic requirements before installation. James Hardie will not be responsible for rectifying obvious aesthetic surface variations following installation.

## 3.3 Clearances

The clearance between the bottom edge of cladding and paved/unpaved ground must comply with Subsection 9.1.2 of E2/AS1.

Hardie™ Flex Sheet must overhang the bottom plate on a concrete slab by a minimum of 50mm as per Table 9.1.2.1, and for timber sub floor framing as per Paragraph 9.1.2.8 of NZBC Acceptable Solution E2/AS1.

Hardie™ Flex Sheet must have a minimum clearance of 100mm from paved ground and 175mm from unpaved ground.

On roofs and decks the minimum clearance must be 50mm.

## 3.4 Moisture Management

It is the responsibility of the specifier to identify moisture related risks associated with any particular building design. Wall construction design must effectively manage moisture, considering both the interior and exterior environments of the building, particularly in buildings that have a higher risk of wind driven rain penetration or that are artificially heated or cooled.

Walls shall include those provisions as required by the NZBC Acceptable Solution 'E2/AS1' 'External Moisture'. In addition all wall openings, penetrations, junctions, connections, window sills, heads and jambs must incorporate appropriate flashings for waterproofing. The other materials, components and installation methods used to manage moisture in external walls, must comply with the requirements of relevant standards and the NZBC. For further information on designing for weathertightness refer to BRANZ Ltd and the Ministry of Business Innovation and Employment (MBIE) updates on the following websites respectively, [www.branz.co.nz](http://www.branz.co.nz) and [www.building.govt.nz](http://www.building.govt.nz).

For timber frame walls longer than 12m, it is best practice to allow for construction joints to accommodate movements generated due to timber shrinkage or deflections.

### 3.5 Structure

Timber framed buildings must either be in accordance with the NZS 3604 (Timber-framed buildings) or designed as per specific engineering design (SED) up to Extra High (EH) wind zone and 10m height max.

A 90 x 45mm minimum framing size is required.

The information published in this specification has been assessed for a timber structural grade SG8 at minimum. Refer to the NZS 3604 for further information on structural grades and their application.

For timber frame walls longer than 12m, it is best practice to allow for construction joints to accommodate movements generated due to timber shrinkage or structural deflections.

### 3.6 Wind Loading

Hardie™ Flex Sheet are suitable for use in all New Zealand wind zones up to and including EH as defined in NZS 3604.

### 3.7 Structural Bracing

Hardie™ Flex Sheet can be used to achieve structural bracing required for timber framed buildings designed and constructed in accordance with NZS 3604. The Hardie™ Flex Sheet must be installed as per specific bracing system details that are available separately. Hardie™ Flex Sheet bracing systems have been independently tested and assessed by Scion for direct fix construction. For cavity fix construction bracing can be achieved by using HomeRAB™ Pre-Cladding or RAB™ Board fixed direct to the framing or by using internal linings such as Villaboard™ Lining or plasterboard bracing systems. Refer to Bracing Design Manual by James Hardie for details.

### 3.8 Fire Rated Walls

Hardie™ Flex Sheet clad walls using direct fix or cavity construction method can achieve fire ratings up to 60/60/60 when the walls are constructed in accordance with this literature and include the fire rated system requirements as specified in Fire and Acoustic Design Manual by James Hardie. Refer to Fire and Acoustic Design Manual for further information about fire rated systems.

### 3.9 Energy Efficiency

External walls constructed as per this technical specification, using Hardie™ Flex Sheet, must use suitable bulk insulation to meet the minimum thermal insulation requirements as per Clause H1/AS1 'Energy Efficiency' of the NZBC.

# 4 Framing

## 4.1 General

This Hardie™ Flex Sheet technical specification is only suitable for timber framed buildings. Other framing materials are outside the scope of this specification.

## 4.2 Timber Grade

Minimum timber grade requirements are No.1 Framing grade as per NZS 3631 'New Zealand Timber Grading Rules' or equivalent.

## 4.3 Durability

The external framing must be treated to a minimum H1.2 treatment. Refer to the NZBC Acceptable Solution B2/AS1 'Durability' for further information about the durability requirements.

For timber treatment and allowable moisture content information refer to NZS 3602 (Timber and Wood-Based Products for use in Buildings) and NZS 3640 (Chemical Preservation of Round Sawn Timber) for minimum timber treatment selection and treatment requirements. Also refer to framing manufacturer's literature for further guidance on timber selection. Framing must be protected from moisture at sites in accordance with the recommendations of the framing manufacturer.

**Note:** Refer to NZS 3602 for information about the allowable moisture content in timber.

## 4.4 Frame Construction

The framing must fully support all sheet edges. The framing must be rigid and not rely on the cladding sheet for stability.

All timber framing sizes and set-out must comply with NZS 3604 and as specified in this specification. Use of timber framing must be in accordance with framing manufacturer's specification.

In case of gable end trusses sitting on top plates of external wall frame, the frame size must be in accordance with truss design and specification supplied by the frame and truss manufacturer/supplier supported by an independent design producer statement.

For specific engineering design for timber framing refer to NZS 3603 and AS/NZS 1170.

### 4.4.1 Direct Fix Construction Method

Buildings with a risk score of 1-6 assessed as per Part 3 of E2/AS1 Table 3.1.3.1, Hardie™ Flex Sheet can be direct fixed.

For direct fixed construction method the following framing is required:

- Studs provided at 600mm centres maximum
- Nogs/dwangas provided at 1200mm centres maximum

### 4.4.2 Cavity Construction Method

Buildings with a risk score of 7-20 assessed as per Part 3 of E2/AS1 Table 3.1.3.1, require Hardie™ Flex Sheet to be installed on a cavity.

For cavity construction method the following framing is required:

- When studs are spaced at 600mm centres maximum then the nogs/dwangs must be provided at 800mm centres maximum
- When studs are spaced at 400mm centres then the nogs/dwangs may be provided at 1200mm centres
- An extra stud is required in internal corners

## 4.5 Tolerances

In order to achieve an acceptable wall finish, it is imperative that framing is straight and true. Framing tolerances must comply with the requirements of the NZS 3604 and the manufacturer's specifications. All framing must be made flush.

The visual aspects of the finished cladding can differ between two different sites or the builders installing the product. It is recommended that you also refer to a building guidance document published by MBIE to understand an acceptable level of tolerances allowed in building materials and workmanship. The 'Guide to tolerances, materials and workmanship in new residential construction 2015' can be found at [www.building.govt.nz](http://www.building.govt.nz).

## 4.6 Curved Walls

Hardie™ Flex Sheet can be used in a curved application. Refer to James Hardie technical support for further information.

# 5 Safe Working Practices

## **WARNING - DO NOT BREATHE DUST AND CUT ONLY IN WELL VENTILATED AREA**

**Hardie™ fibre cement products contain sand, a source of respirable crystalline silica. May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product.**

Intact fibre cement products are not expected to result in any adverse toxic effects. The hazard associated with fibre cement arises from the respirable crystalline silica present in dust generated by activities such as cutting, rebating, drilling, routing, sawing, crushing, or otherwise abrading fibre cement, and when cleaning up, disposing of or moving dust.

When doing any of these activities in a manner that generates dust, follow James Hardie instructions and best practices to reduce or limit the release of dust.

If using a dust mask or respirator, use an AS/NZS 1716 P1 filter and refer to Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment for more extensive guidance and more options for selecting respirators for workplaces. For further information, refer to our installation instructions and Safety Data Sheets available at [www.jameshardie.co.nz](http://www.jameshardie.co.nz).

**FAILURE TO ADHERE TO OUR WARNINGS, SAFETY DATA SHEETS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.**

### **Crystalline Silica is**

- Commonly known as sand or quartz
- Found in many building products e.g. concrete, bricks, grout, wallboard, ceramic tiles, and all fibre cement materials

### **Why is Crystalline Silica a health hazard?**

- Silica can be breathed deep into the lungs when present in the air as a very fine (respirable) dust
- Exposure to silica dust without taking the appropriate safety measures to minimise the amount being breathed in, can lead to a potentially fatal lung disease – silicosis – and has also been linked with other diseases including cancer. Some studies suggest that smoking may increase these risks
- The most hazardous dust is the dust you cannot see!

### **When is Crystalline Silica a health hazard?**

- It's dangerous to health if safety protocols to control dust are not followed when cutting, drilling or rebating a product containing crystalline silica
- Products containing silica are harmless if intact (e.g. an un-cut sheet of wall board)

## **Avoid breathing in crystalline silica dust**

### **Safe working practices**

- ✗ NEVER use a power saw indoors or in a poorly ventilated area
- ✗ NEVER dry sweep
- ✓ ALWAYS use M Class or higher vacuum or damp down dust before sweeping up
- ✗ NEVER use grinders
- ✓ ALWAYS use a dust reducing circular saw equipped with a sawblade specifically designed to minimise dust creation when cutting fibre cement – preferably a sawblade that carries the Hardie™ Blade name or one with at least equivalent performance – connected to an M Class or higher vacuum
- ✓ Before cutting warn others in the area to avoid dust
- ✓ ALWAYS follow tool manufacturers' safety recommendations
- ✓ ALWAYS expose only the minimum required depth of blade for the thickness of fibre cement to be cut
- ✓ ALWAYS wear a properly-fitted, approved dust mask or respirator P1 or higher in accordance with applicable government regulations and manufacturer instructions
- ✓ Consider rotating personnel across cutting tasks to further limit respirable silica exposures.

### **Use one of the following methods for cutting Hardie™ Flex Sheet:**

#### **Best**

- Hardie™ Knife
- Hand guillotine
- Fibreshear

#### **Better**

Dust reducing circular saw equipped with Hardie™ Blade Saw Blade and connected to a M Class or higher vacuum.

### **When cutting outdoors**

- ✓ Make sure you work in a well ventilated area
- ✓ Position cutting station so wind will blow dust away from yourself and others in the working area
- ✓ Cut products with either a Hardie™ Knife or fibre cement shears or, when not feasible, a Hardie™ Blade Saw Blade (or equivalent) and a dust reducing circular saw connected to a M Class or higher vacuum
- ✓ When sawing, sanding, rebating, drilling or machining fibre cement products, always:
  - Wear your P1 or higher mask (correctly fitted in accordance with manufacturers' instructions), ask others to do the same.
  - Keep persons on site at least 2 metres and as far as practicable away from the cutting station while the saw is in operation
  - If you are not clean shaven, then use a powered air respirator with a loose-fitting head top
  - Wear safety glasses
  - Wear hearing protection
  - When others are close by, ask them to do the same
- ✓ Make sure you clean up BUT never dry sweep. Always hose down with water/wet wipe or use an M Class or higher vacuum

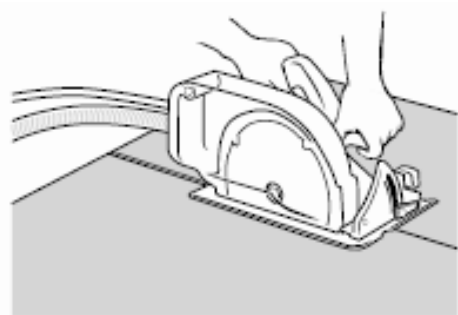
### When cutting indoors

- ✗ Never cut using a circular saw indoors
- ✓ Position cutting station in a well ventilated area
- ✓ Cut ONLY using a Hardie™ Knife, hand guillotine or fibreshears (manual, electric or pneumatic)
- ✓ Make sure you clean up BUT never dry sweep. Always hose down with water/wet wipe or use an M Class or higher vacuum

### Working instructions

#### Hardie™ Blade Saw Blade

The Hardie™ Blade Saw Blade used with a dust-reducing saw is ideal for fast, clean cutting of Hardie™ fibre cement products. A dust-reducing saw uses a dust collector connected to a M Class or higher vacuum. When sawing, clamp a straight edge to the sheet as a guide and run the saw base plate along the straight edge when making the cut.



#### Hole forming

##### For smooth clean cut circular holes:

- Mark the centre of the hole on the sheet
- Pre-drill a 'pilot' hole
- Using the pilot hole as a guide, cut the hole to the appropriate diameter with a hole saw fitted to a heavy duty electric drill



##### For irregular holes:

- Small rectangular or circular holes can be cut by drilling a series of small holes around the perimeter of the hole then tapping out the waste piece from the sheet face
- Tap carefully to avoid damage to sheets, ensuring that the sheet edges are properly supported

## 5.1 Storage and delivery

Keeping products and people safe

### Off loading

- ✓ Hardie™ fibre cement products should be off-loaded carefully by hand or by forklift
- ✓ Hardie™ fibre cement products should not be rolled or dumped off a truck during the delivery to the jobsite

### Storage

Hardie™ fibre cement products should be stored:

- ✓ In their original packaging
- ✓ Under cover where possible or otherwise protected with a waterproof covering to keep products dry
- ✓ Off the ground – either on a pallet or adequately supported on timber or other spacers
- ✓ Flat so as to minimise bending

Hardie™ fibre cement products must not be stored:

- ✗ Directly on the ground
- ✗ In the open air exposed to the elements

**James Hardie is not responsible for damage due to improper storage and handling.**

## **5.2 Tips for safe and easy handling of Hardie™ Flex Sheet**

- ✓ Carry with two people
- ✓ Hold near each end and on edge
- ✓ Exercise care when handling sheet products to avoid damaging the edges/corners

# 6 Preparation

## 6.1 Flexible Underlay or HomeRAB™ Pre-Cladding

Flexible underlay or HomeRAB™ Pre-Cladding Lining must be provided as per the requirements of the NZBC Acceptable Solution E2/AS1 'External Moisture' and NZS 3604. The flexible underlay must comply with Table C.2.1.1 of E2/AS1 and AS/NZS 4200.1. The flexible underlay must be fixed in accordance with E2/AS1, NZS 3604 and AS/NZS 4200.2 'Pliable Building Membranes and Underlay – Installation' standard and the underlay manufacturer's recommendations.

Walls which are not lined on the inside face e.g. garage walls or gable ends must include a rigid sheathing or an air barrier behind the cladding which complies with the requirements of the NZBC Acceptable Solution E2/AS1 Table C.2.1.1. HomeRAB™ Pre-Cladding is suitable for use in these applications. It must be installed in accordance with the HomeRAB™ Pre-Cladding and RAB™ Board Installation Manual.

## 6.2 Intermediate Support

Where studs are at 600mm centres an intermediate means of restraining the flexible underlay and insulation from bulging into the cavity must be installed. An acceptable solution as per Paragraph 9.1.7.10 of E2/AS1 of the NZBC is using one of the following:

- Intermediate cavity batten between the studs; or
- 75mm galvanised mesh; or
- Polypropylene tape at 300mm centres fixed horizontally and drawn taut.

No intermediate supports are required:

- Where studs are at maximum 400mm centres; or,
- When rigid sheathings instead of flexible underlays are used.

## 6.3 Rigid Air Barrier and RAB™ Board

For EH wind zones a rigid air barrier ie RAB™ Board must be used in lieu of flexible underlays. To achieve the temporary weathertightness using HomeRAB™ Pre-Cladding or RAB™ Board, windows/doors need to be temporarily installed. Refer to the HomeRAB™ Pre-Cladding and RAB™ Board installation manual for information regarding its installation.

## 6.4 Vent Strip

The Hardie™ uPVC cavity vent strip must be installed at the bottom of all walls constructed using the drained and ventilated cavity construction method. It is important that the openings in the vent strip are kept clear and unobstructed to allow free drainage and ventilation of cavities. Hardie™ uPVC vent strip has a ventilation area of 1000mm<sup>2</sup>/m length.

## 6.5 Cavity Battens

The cavity battens are provided in accordance with Paragraph 9.1.7.4 of E2/AS1.

The timber battens must be minimum H3.1 treated to comply with the durability requirements of B2/AS1.

Cavity battens must comply with Paragraph 9.1.7.8 E2/AS1 and:

- Be minimum 18mm thick and 45mm wide
- When studs are at 600mm centres battens to be provided at 300mm centres or alternatively refer to clause 6.2 intermediate support polypropylene tape at 300mm centres fixed horizontally and drawn taut
- Be fixed by the cladding fixings to the main framing through the flexible underlay

- Until claddings are fixed the battens only need to be tacked to the framing with 40 x 2.8mm Hardie™ Flex nails at 600mm centres maximum

**Note:** Batten fixing is required temporarily to keep them straight on the wall during construction.

No intermediate batten between studs is required:

- When studs are spaced at maximum 400mm centres and/or
- When rigid sheathings instead of building underlays are used

**Note:** 100mm long cavity packers must be used where required to support fixings in this circumstance.

## 6.6 Flashings

All wall openings, penetrations, intersections, connections, window sills, heads and jambs must be flashed prior to sheet installation. Please refer to moisture management requirements in Clause 2.5.

The flexible underlay must be appropriately incorporated with penetration and junction flashings. Materials must be lapped in such a way that water tracks down to the exterior on the face of flexible underlay. James Hardie will assume no responsibility for water infiltration within the wall due to poor installation of flashings or flexible underlays. The selected flashing materials must comply with the durability requirements of the NZBC Acceptable Solution 'E2/AS1' clause 9.7.3.1 for back sealing.

# 7 Fixing

## 7.1 General

Hardie™ Flex Sheet must be kept dry and under cover whilst in storage or during installation. Framing moisture contents must not exceed the maximum limit specified in NZS 3602 prior to sheet installation. Every endeavour must be made to keep framing dry once sheet fixing commences.

All sheet edges must be sealed prior to installation. The sheet edges must also be sealed around window/door openings and other penetrations e.g. meter boxes etc. Direct fix Hardie™ Flex Sheet must be primed 100mm across back face from edges.

## 7.2 Fastener Durability

Fasteners must meet the minimum durability requirements of the NZBC. NZS 3604 specifies the requirements for fixing material to be used in relation to exposure conditions and are summarised in Table 4.

**Table 4**

| Exposure conditions and nail selection prescribed |             |                               |
|---------------------------------------------------|-------------|-------------------------------|
| Zone                                              | Application |                               |
| D (sea spray) and geothermal hot spots            | General     | Stainless steel 304/316       |
|                                                   | Fire        |                               |
|                                                   | Bracing     |                               |
| C* and B                                          | General     | Hot dip galvanised            |
|                                                   | Fire        | Must comply with AS/NZS 4680. |

\* Zone C areas where local knowledge dictates that increased durability is required, appropriate selection shall be made. Microclimate conditions as detailed in NZS 3604, Paragraph 4.2.4 require SED.

Also refer to the NZBC Acceptable Solution E2/AS1 Table C.1.1.1A and C.1.1.1B for information regarding the selection of suitable fixing materials and their compatibility with other materials.

## 7.3 Fastener — size and layout

Hardie™ Flex Sheet must be fixed to framing using the fixings as specified in Table 5 and in accordance with the following requirements:

- Nails must have a minimum clearance of 12mm from sheet edges and a minimum of 75mm vertically and 150mm horizontally from sheet corners
- Nails must finish flush with sheet surface

**Table 5**

| <b>Sheet fixing</b>                                                                                  |                                                                                             |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Direct to stud fixing</b>                                                                         |                                                                                             |
| 40 x 2.8mm Hardie™ Flex nails                                                                        | Fix sheet at 200mm centres at all sheet edges as well as all intermediate framing.          |
| <b>Cavity construction up to and including VH wind zones over flexible underlay</b>                  |                                                                                             |
| 60 x 3.15mm Hardie™ Flex nails                                                                       | Fix sheet at 200mm centres at all studs and at 150mm centres at top plate and bottom plate. |
| <b>Cavity construction up to and including H wind zone over HomeRAB™ Pre-Cladding or RAB™ Board</b>  |                                                                                             |
| 75 x 3.15mm Hardie™ Flex nails                                                                       | Fix sheet at 200mm centres at all sheet edges as well as all intermediate framing.          |
| <b>Cavity construction up to and including EH wind zone over HomeRAB™ Pre-Cladding or RAB™ Board</b> |                                                                                             |
| 75 x 3.15mm Hardie™ Flex nails                                                                       | Fix sheet at 150mm centres at all sheet edges as well as all intermediate framing.          |

**Note:** Special fixing arrangements are required for bracing and fire-resistance rated wall systems. For more information Ask James Hardie on 0800 808 868.

## 7.4 Gun Nailing

Hardie™ Flex Sheet can be fixed using nail guns. The gun nails used must have a full round head to provide the required holding power. The length and gauge of nails must at a minimum be as specified in this document. Check with nail gun manufacturer for more information.

**Note:** Do not use D Head nails. Do not use gun nailing for bracing applications.

## 7.5 Sheet layout

- All sheet edges must be supported by the framing
- Hardie™ Flex Sheet must be fixed vertically

# Nailing depth



RoundDrive Nail  
(Plan view)



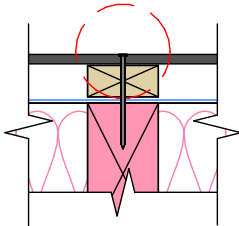
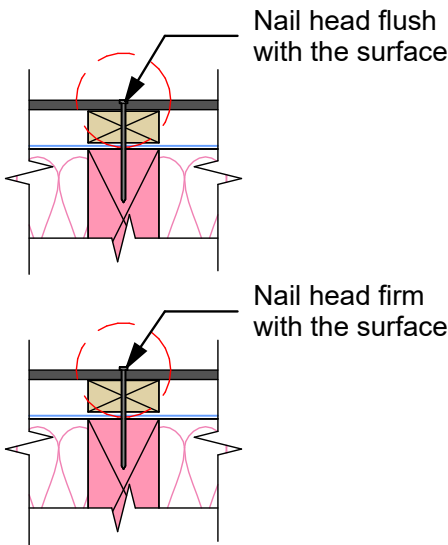
Hardie™ Flex Nail  
(Plan view)



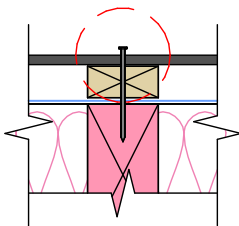
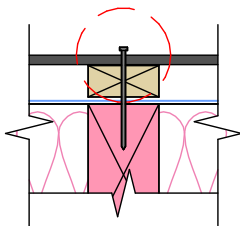
RoundDrive Nail  
(Section view)



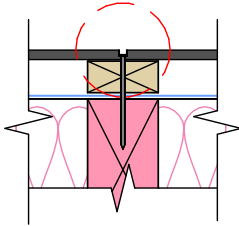
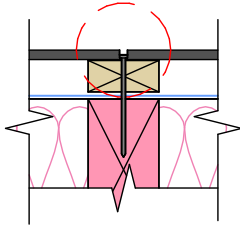
Hardie™ Flex Nail  
(Section view)



  
(CORRECT)



  
(INCORRECT)



  
(INCORRECT)

# 8 Jointing

## 8.1 General

Hardie™ Flex Sheet can be jointed in a number of ways to achieve different panelised look of the walls.

## 8.2 Vertical Joint

Hardie™ Flex Sheet could have the following types of vertical joints.

- uPVC Hardie™ Jointer, refer to Figure 4 and 16
- Hardie™ Axent™ Trim joint, refer to Figure 17
- Flexible sealant joint, refer to Figure 18

## 8.3 Internal Corner and External Corner

Hardie™ Flex Sheet could have the following types of internal and external corners.

- uPVC Jointer, refer to Figure 5, 6, 19 and 20
- Hardie™ Axent™ Trim joint, refer to Figure 22 and 23
- Flexible sealant joint, refer to Figure 24 and 25

## 8.4 Horizontal Joint

At floor joist levels a horizontal joint must be provided to accommodate the movement resulting from timber joist shrinkage and settlement.

- For Hardie™ Flex Sheet use a Hardie™ uPVC 'h' mould to form a horizontal joint or a purpose made metal 'Z' flashing could also be used to form a horizontal joint

# 9 Finishing

## 9.1 Preparation

Painting of Hardie™ Flex Sheet is required in order to meet the durability requirements of the NZBC and product warranties. Hardie™ Flex Sheet must be dry and free from dirt before painting. Coating must be completed within 3 months of sheet installation.

When using uPVC flashings, the light reflective value of the colour used must be more than 40% as required under 'E2/AS1'. Dark colours cause excessive movement and deteriorate the cladding performance.

## 9.2 Sealants

All sealants must meet the relevant requirements of the NZBC. Their application usage must be in accordance with manufacturer's instructions. Check with sealant manufacturer prior to coating over sealants. Some sealant manufacturers do not recommend coating over their product.

## 9.3 Coating

Use only quality exterior paints complying with AS 3730. Manufacturer's specification for the selected paint must be followed. Note that some paints require undercoat before applying the finish coat. Prior to coating, the surface should be examined to ensure it is clean, dry and free of any dust or contaminants. When using uPVC flashings, the light reflective value (LRV) for the colour must not be less than 40%.

All exposed faces, including the top edges under the sills and bottom edges of Hardie™ Flex Sheet must be finished with an exterior paint system. Paints with a low LRV will absorb more solar heat and could cause the components used in the wall to expand or contract. This combined with glossy paints and wet timber used at construction stage, could lead to increased chances of fastener read through as is common with any other building material.

For best aesthetic results a low sheen paint is recommended. Enamel — based paints can be used, utilising a three-coat system. Refer to the paint manufacturer for details before commencing the coating work.

Paint must not be applied when the temperature is below 10° C.

# 10 Care & Maintenance

The extent and nature of maintenance will depend on the geographical location and exposure of the building. Refer to Section 2.2 of E2/AS1 and Section 2.2 of B2/AS1 for essential maintenance requirements for claddings to achieve the required durability of materials and components etc. As a guide, it is recommended that basic normal maintenance tasks for Hardie™ Flex Sheet include but not be limited to:

- Washing down exterior surfaces every 6-12 months using low pressure water and a brush, and every 3-4 months in extreme coastal conditions or sea spray zones. Do not use a water blaster to wash down the cladding. Refer to your paint manufacturer for washing down requirements.
- Re-coating exterior protective finishes. Always refer to your paint manufacturer for re-coating requirements
- Regular inspection and repair if necessary of the cladding joints, sealants, fillers, flashings etc
- Cleaning out gutters, blocked pipes and overflow pipes as required
- Pruning back vegetation close to or touching the Hardie™ Flex Sheet
- Remove any snow or ice build up that is in direct contact with the cladding for extended periods
- The clearances between the bottom edge of Hardie™ Flex Sheet and the finished/unfinished ground must always be maintained eg around concrete paths/drives etc 100mm minimum and natural ground/pebbles etc 175mm minimum

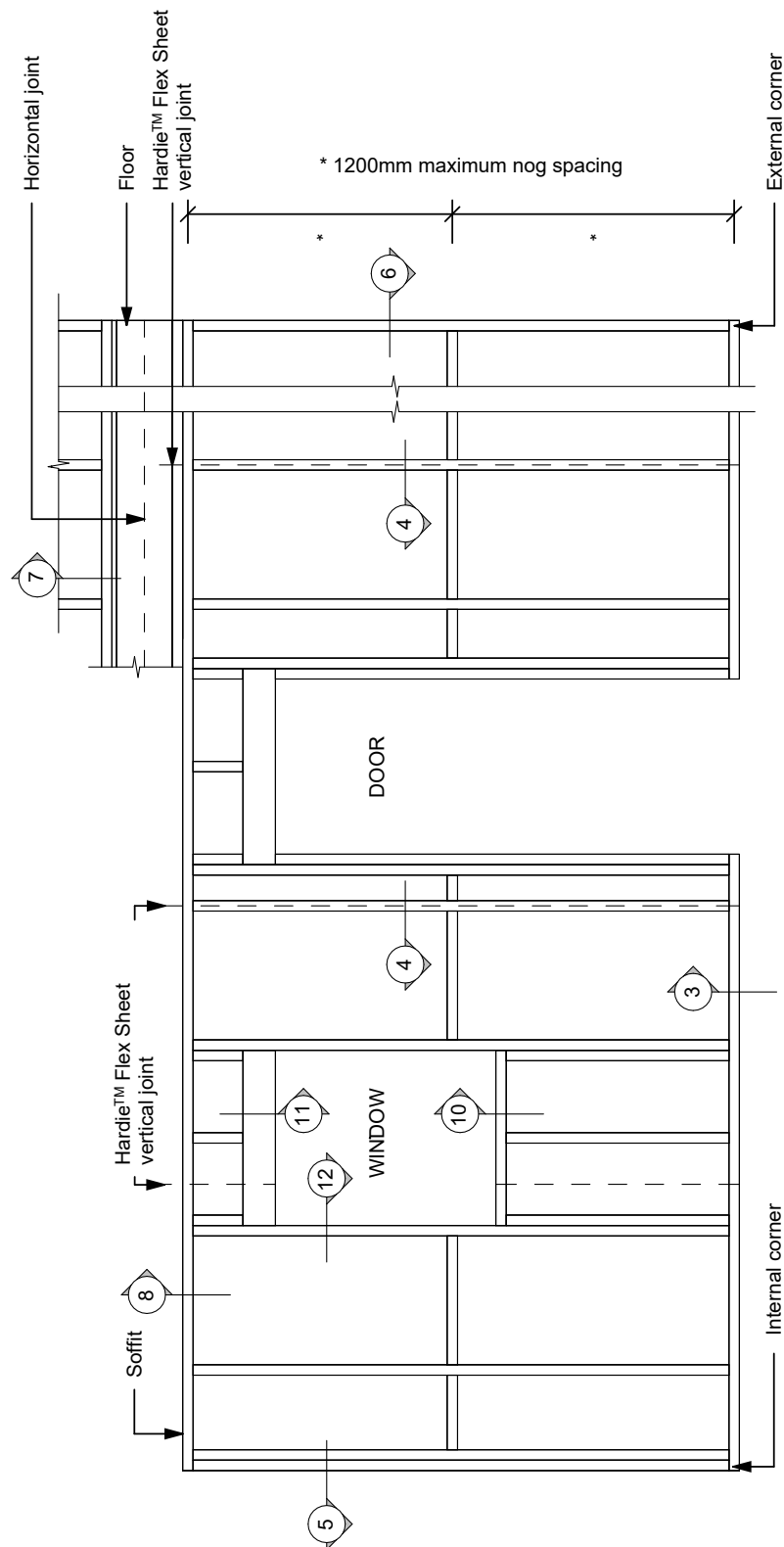
# 11 Details

Various details outlined in the following table are available on Pages 25 to 59.

**Table 6**

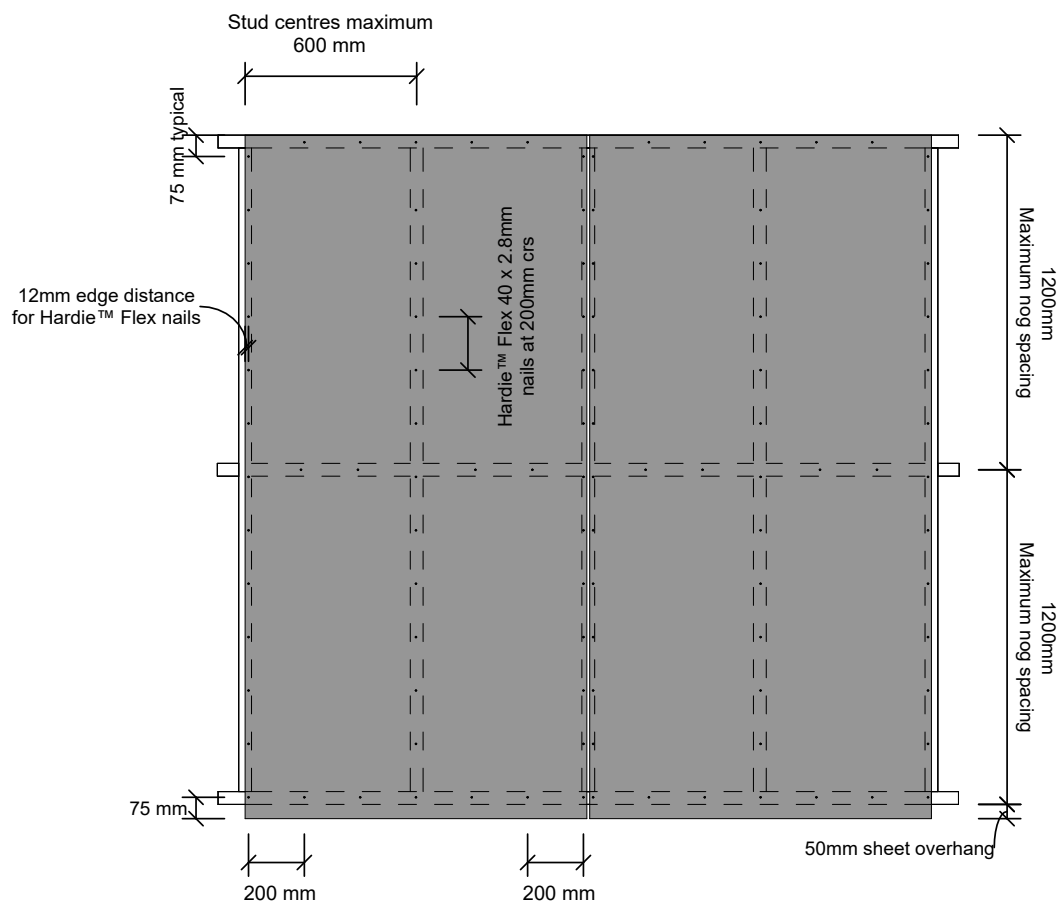
| Details                             |              |      |                     |      |
|-------------------------------------|--------------|------|---------------------|------|
| Description                         | Direct fixed |      | Cavity construction |      |
|                                     | Figure       | Page | Figure              | Page |
| Framing                             | Figure 1     | 25   | Figure 13           | 37   |
| Sheet Fixing                        | Figure 2     | 26   | Figure 14           | 38   |
| Concrete Foundation Detail          | Figure 3     | 27   | Figure 15           | 39   |
| Vertical uPVC Joint                 | Figure 4     | 28   | Figure 16           | 40   |
| Hardie™ Axent™ Trim Joint           |              |      | Figure 17           | 41   |
| Vertical Sealant Joint              |              |      | Figure 18           | 42   |
| Internal uPVC Corner Joint          | Figure 5     | 29   | Figure 19           | 43   |
| External uPVC Corner Joint          | Figure 6     | 30   | Figure 20           | 44   |
| Horizontal Control Joint            | Figure 7     | 31   | Figure 27           | 51   |
| Soffit Detail                       | Figure 8     | 32   | Figure 26           | 50   |
| 'h' Mould Jointer                   | Figure 9     | 33   | Figure 28           | 52   |
| Window Sill                         | Figure 10    | 34   | Figure 30           | 54   |
| Window Head                         | Figure 11    | 35   | Figure 31           | 55   |
| Window Jamb                         | Figure 12    | 36   | Figure 32           | 56   |
| Cavity Hardie™ Axent™ Trim Fixing   |              |      | Figure 21           | 45   |
| Internal Hardie™ Axent™ Trim Corner |              |      | Figure 22           | 46   |
| External Hardie™ Axent™ Trim Corner |              |      | Figure 23           | 47   |
| Internal Sealant Joint Corner       |              |      | Figure 24           | 48   |
| External Sealant Joint Corner       |              |      | Figure 25           | 49   |
| Corner to 'h' Mould Joint           |              |      | Figure 29           | 53   |
| One Piece Apron Flashing Joint      |              |      | Figure 33           | 57   |
| Parapet Flashing                    |              |      | Figure 34           | 58   |
| Pipe Penetration                    |              |      | Figure 35           | 59   |

**Figure 1: Direct fix framing**



- Note:
- Maximum stud spacing at 600mm centres
  - Check that the risk matrix score is 6 or less

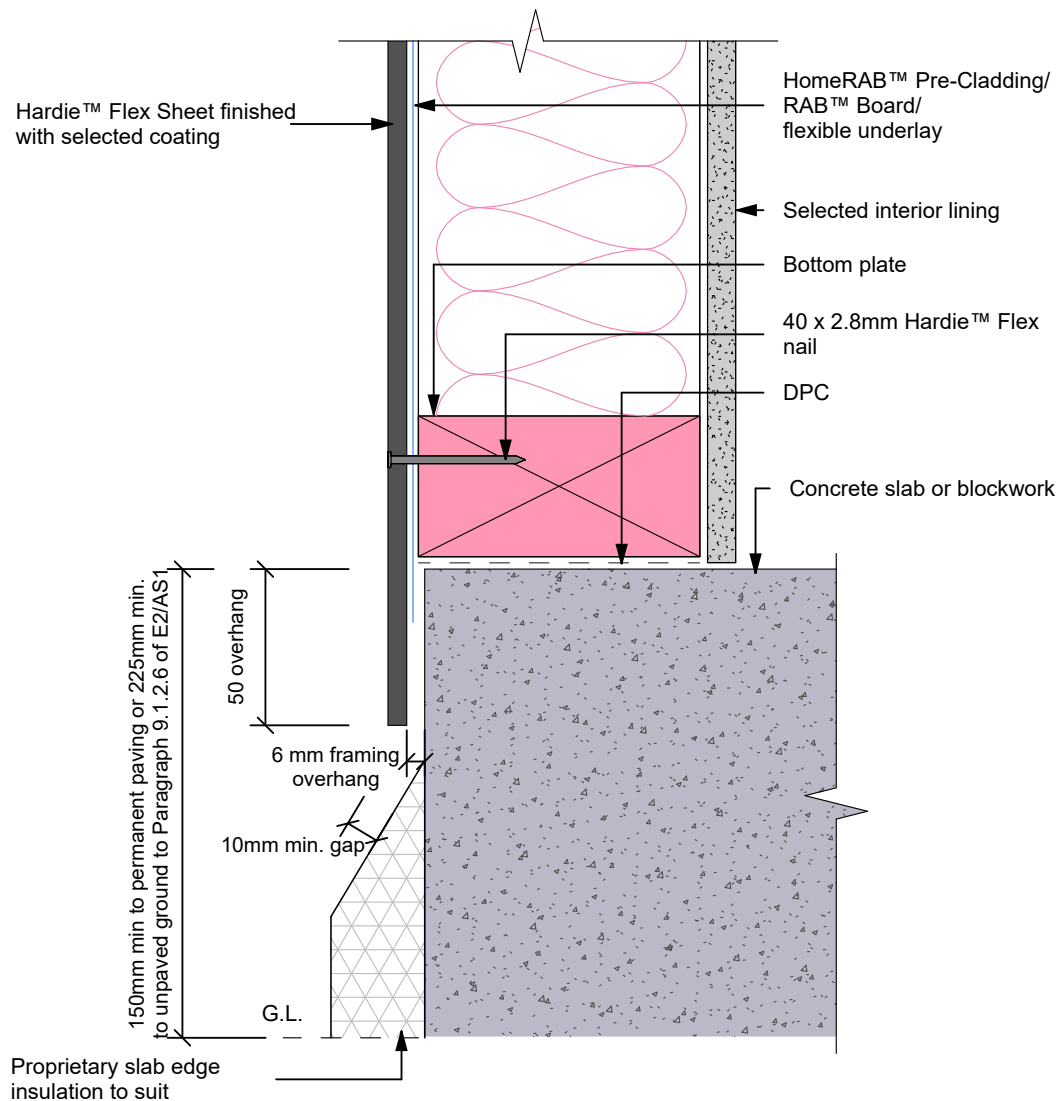
**Figure 2: Direct fix sheet fixing**



**Note:**

- Hardie™ Flex Sheets must be fixed vertically except for curved wall applications
- For fire rated wall systems by James Hardie nog spacing must be 800mm centres maximum
- **For fire resistance rated wall systems, Hardie™ Flex Sheet must be fixed at 150mm centres to the entire frame.**

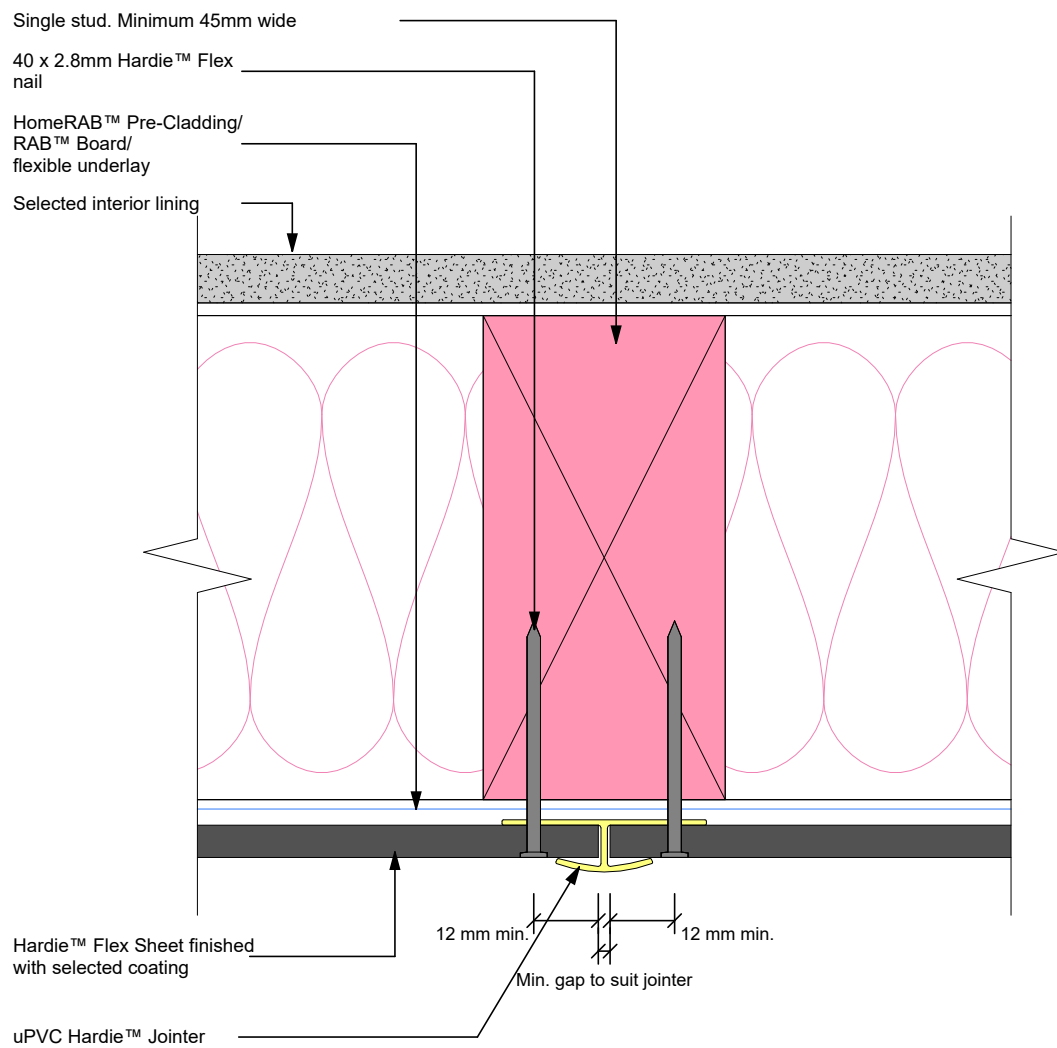
**Figure 3: Direct fix concrete foundation detail**



**Note:**

- Seal edges with a primer compatible with final coatings before fixing, including 100mm across back face from each edge

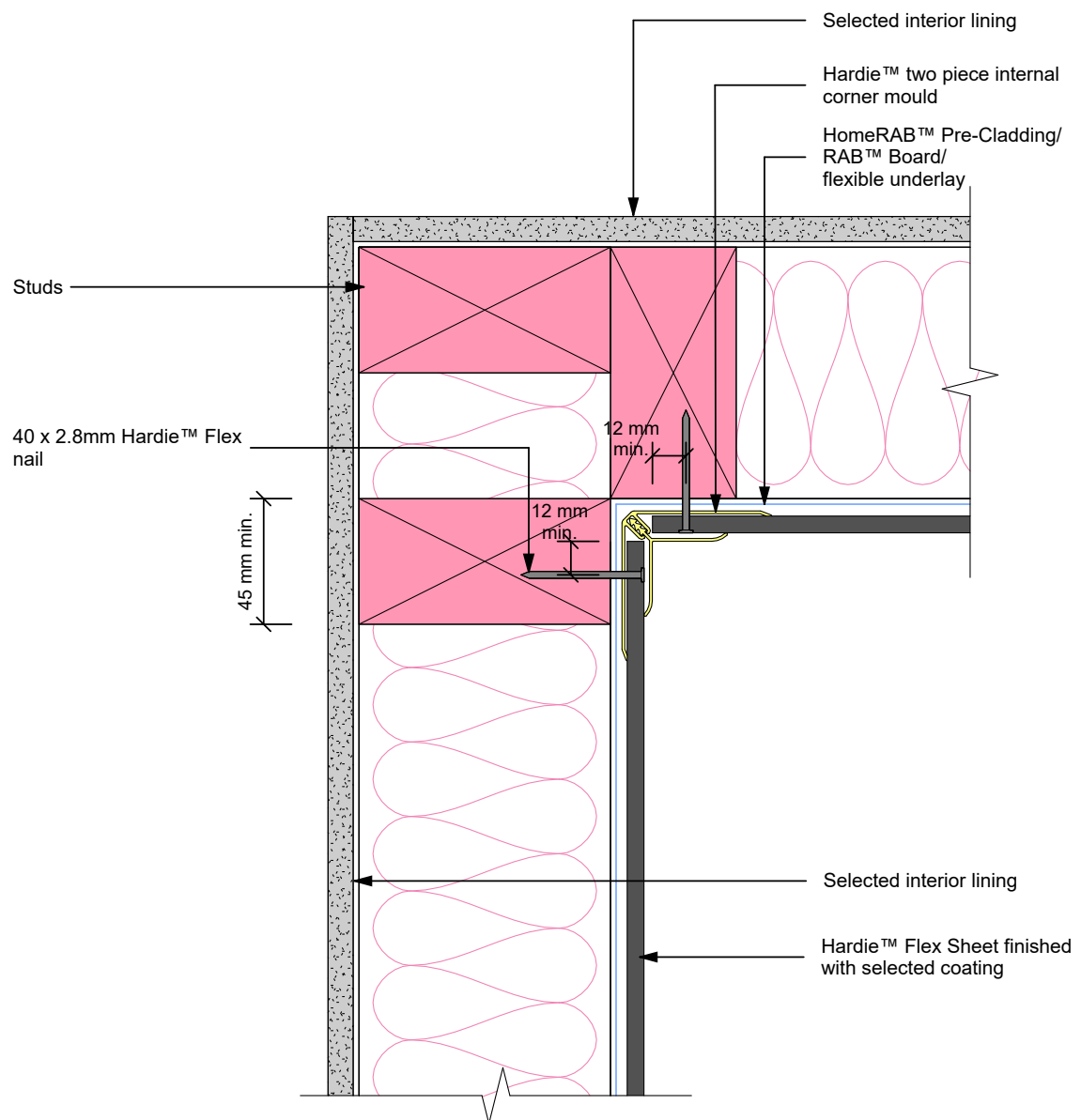
**Figure 4: Direct fix vertical uPVC joint**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing, including 100mm across back face from each edge.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

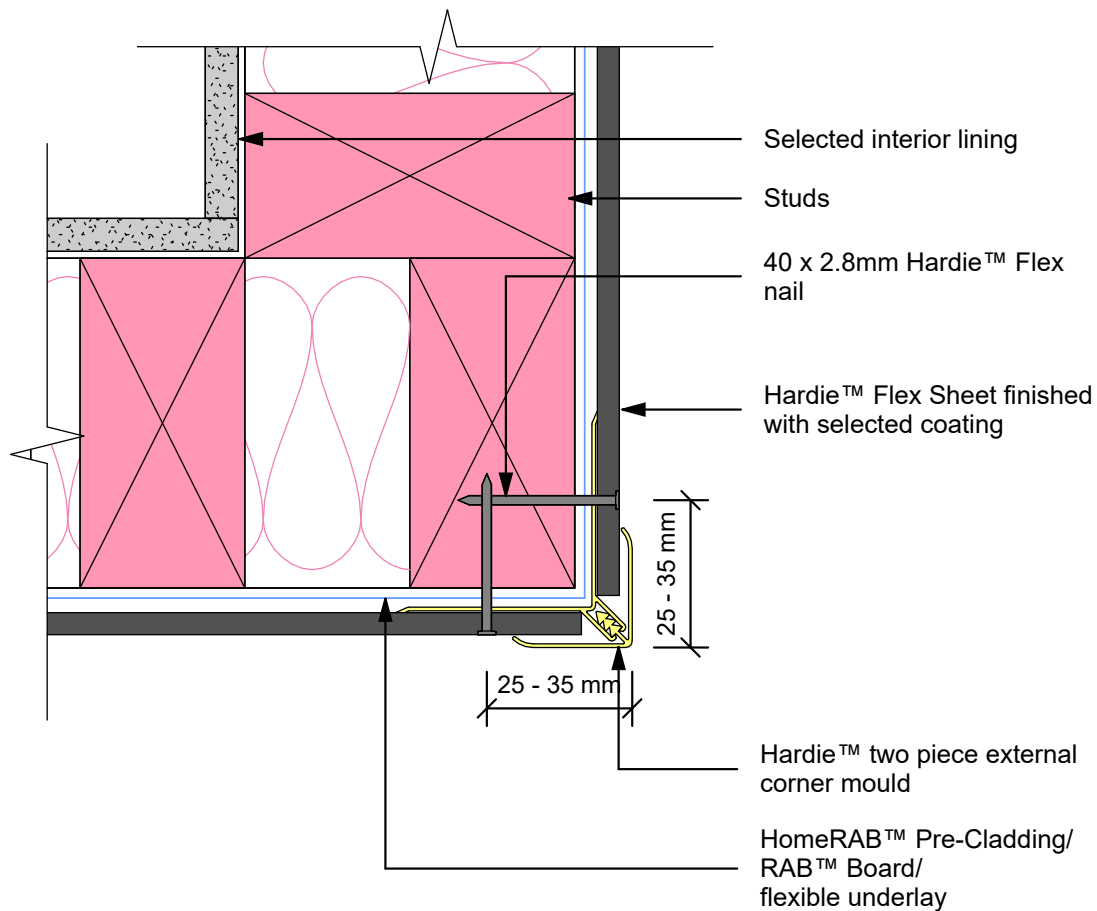
**Figure 5: Direct fix internal uPVC corner joint**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing, including 100mm across back face from each edge.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

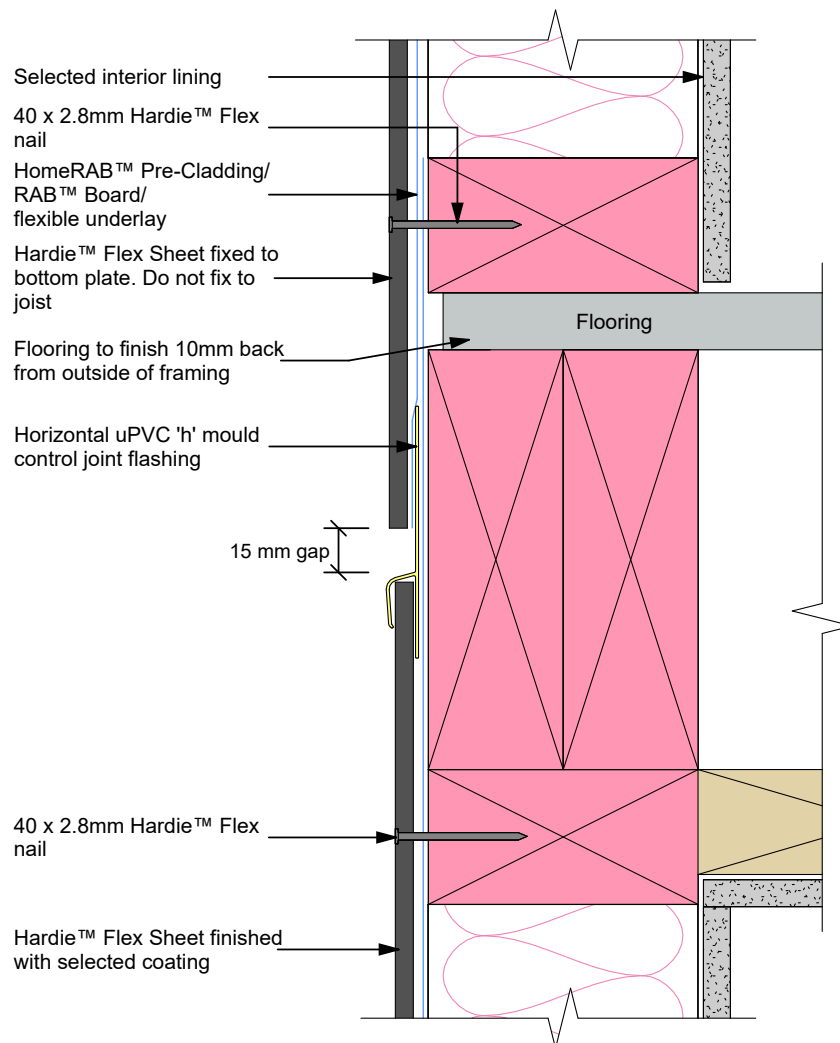
**Figure 6: Direct fix external uPVC corner joint**



**Note:**

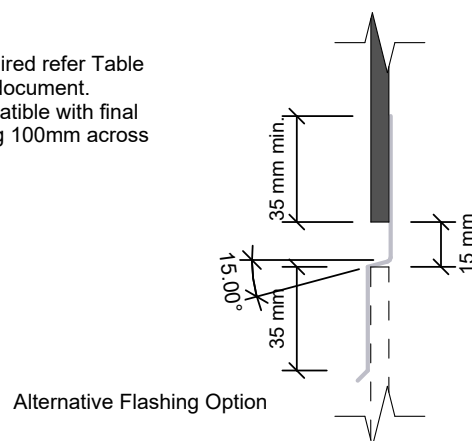
- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing, including 100mm across back face from each edge.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

**Figure 7: Direct fix horizontal control joint**



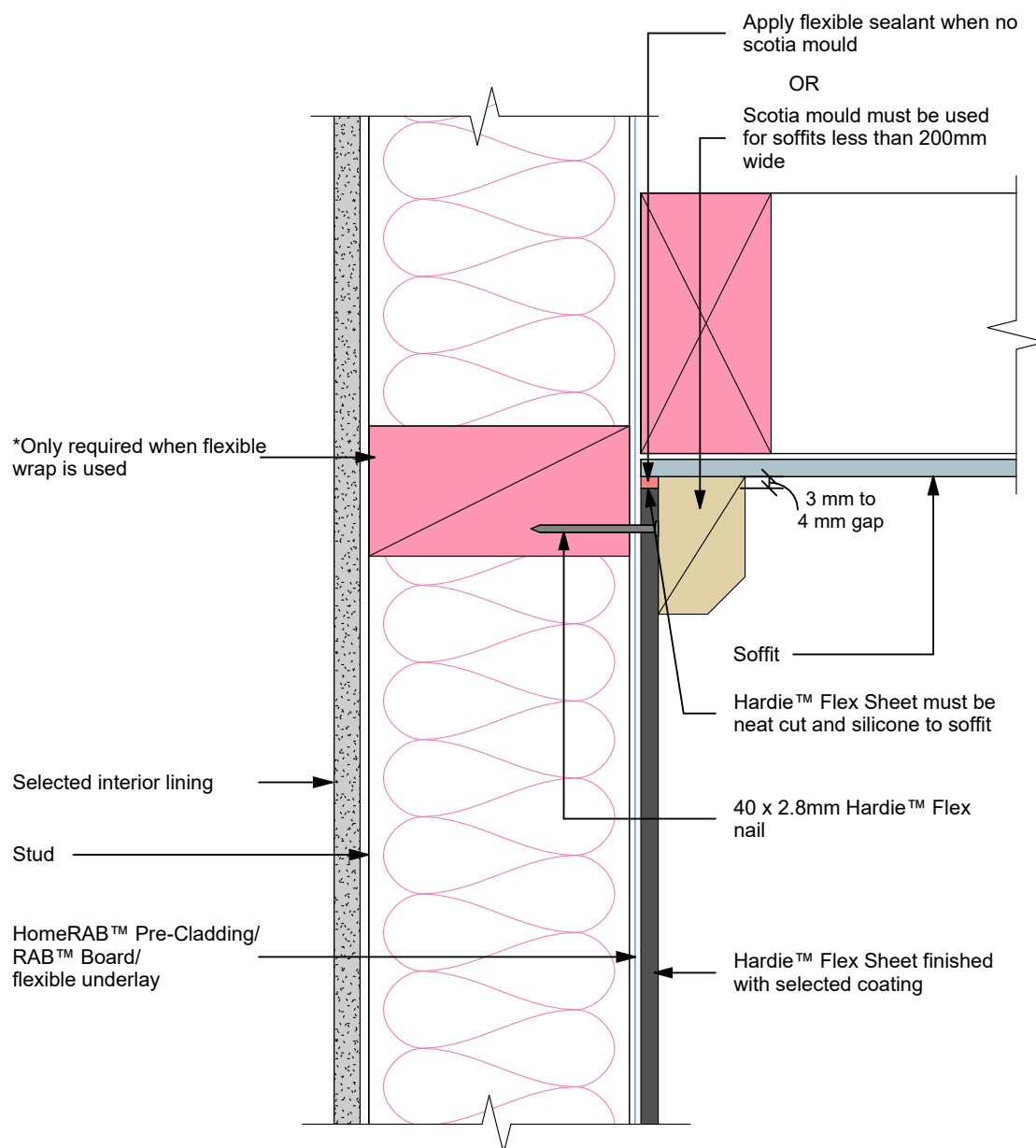
**Note:**

- When 50 year durability is required refer Table C1.1.1A of the NZBC E2/AS1 document.
- Seal edges with a primer compatible with final coatings before fixing, including 100mm across back face from each edge.



**Alternative Flashing Option**

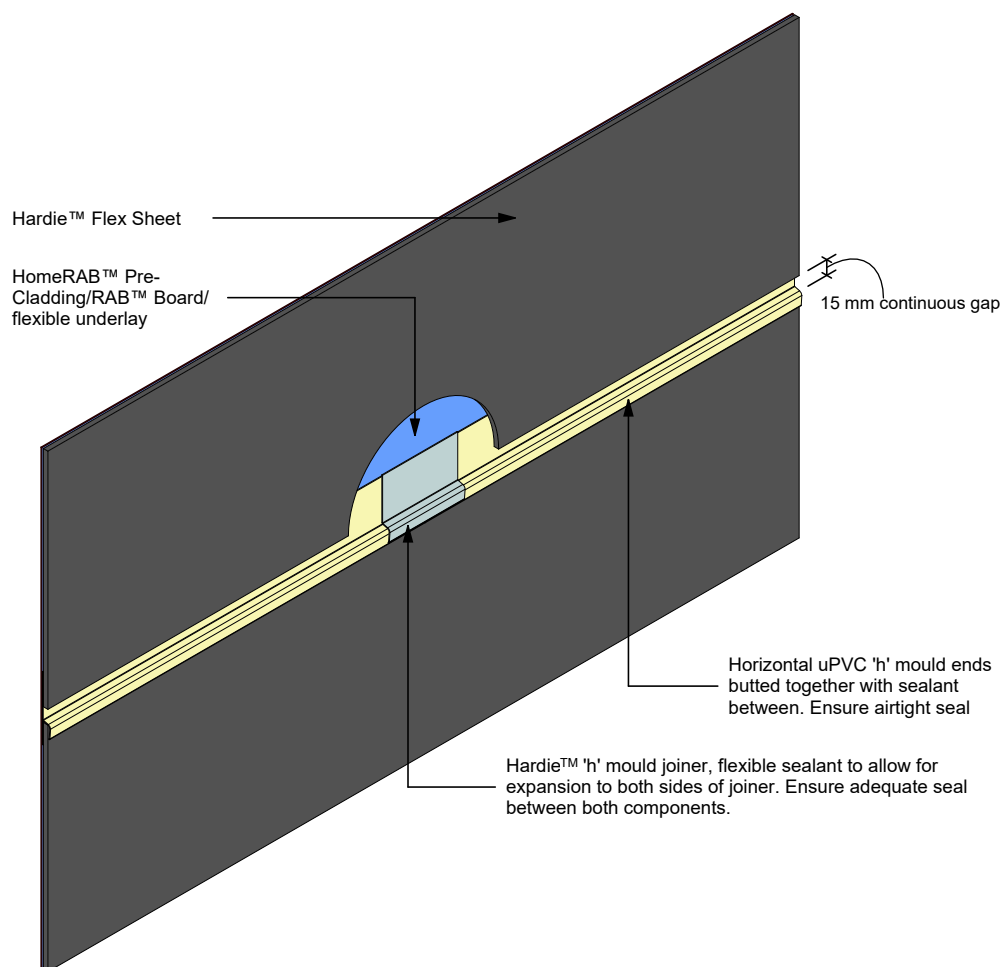
**Figure 8: Direct fix soffit detail**



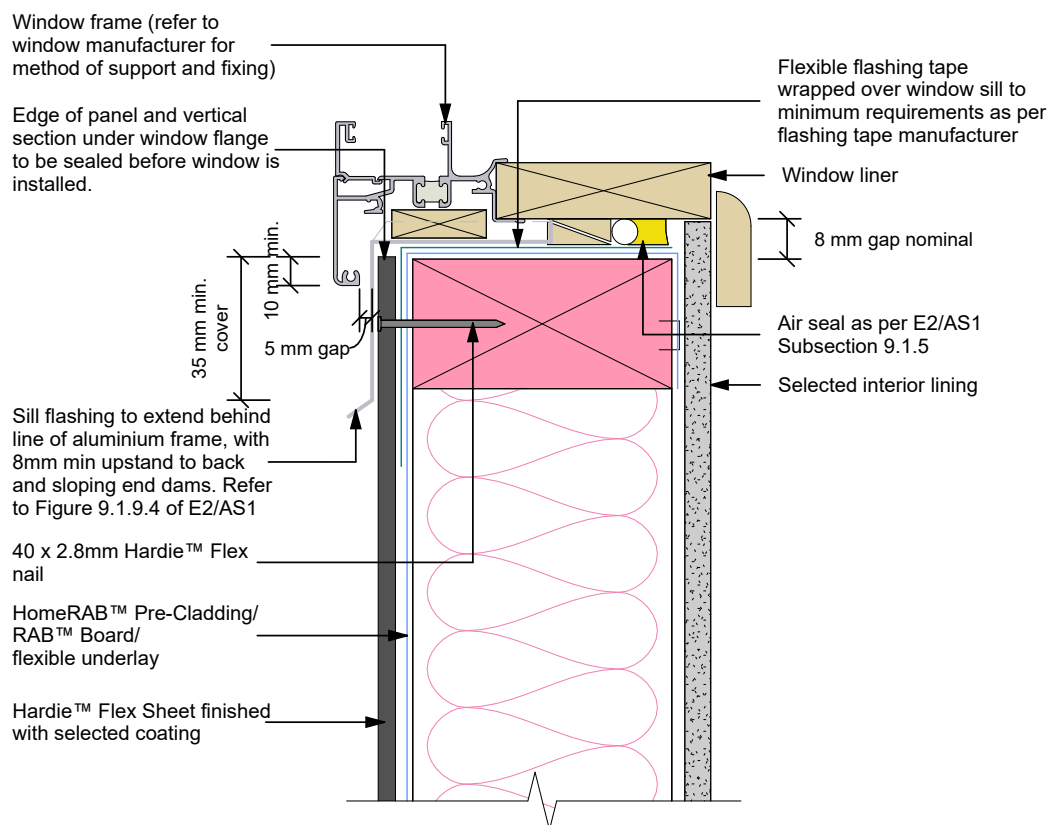
**Note:**

- When 50 year durability is required refer Table C1.1.1A of the NZBC E2/AS1 document.
- Seal edges with a primer compatible with final coatings before fixing, including 100mm across back face from each edge.

Figure 9: 'h' mould jointer



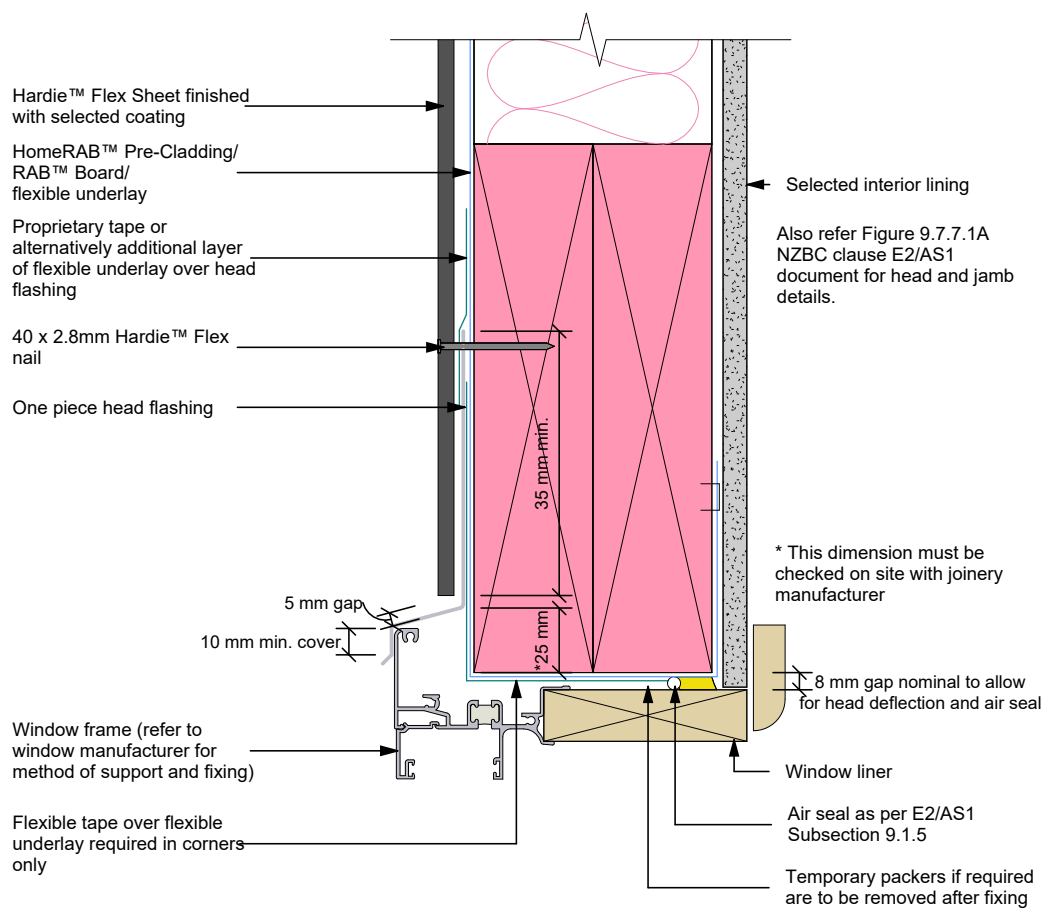
**Figure 10: Direct fix window sill**



**General notes**

1. Flashing materials must be selected based on environmental exposure, refer to the NZS 3604 and Table C1.1.1A of the NZBC E2/AS1
2. Flexible underlay must comply with acceptable solution E2/AS1
3. Flashing tape must have proven compatibility with the selected flexible underlay and other materials with which it comes into contact
4. When HomeRAB™ Pre-Cladding/RAB™ Board is used flashing tape to be applied to the entire window opening
5. Site cut edges to be primed, including 100mm across back face from each edge

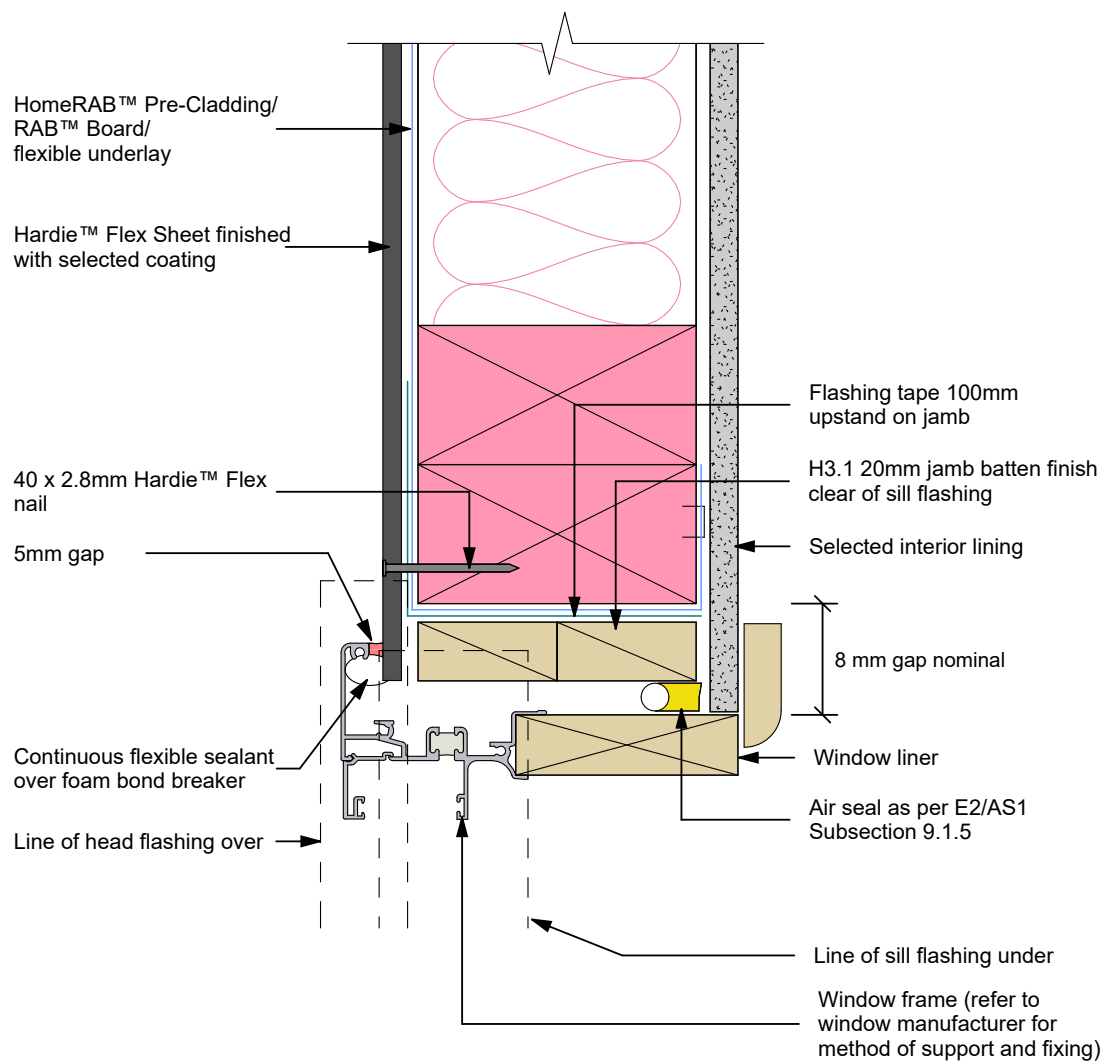
**Figure 11: Direct fix window head**



**Note:**

- When HomeRAB™ Pre-Cladding/RAB™ Board is used flashing tape to be applied to the entire window opening
- Site cut edges to be primed, including 100mm across back face from each edge

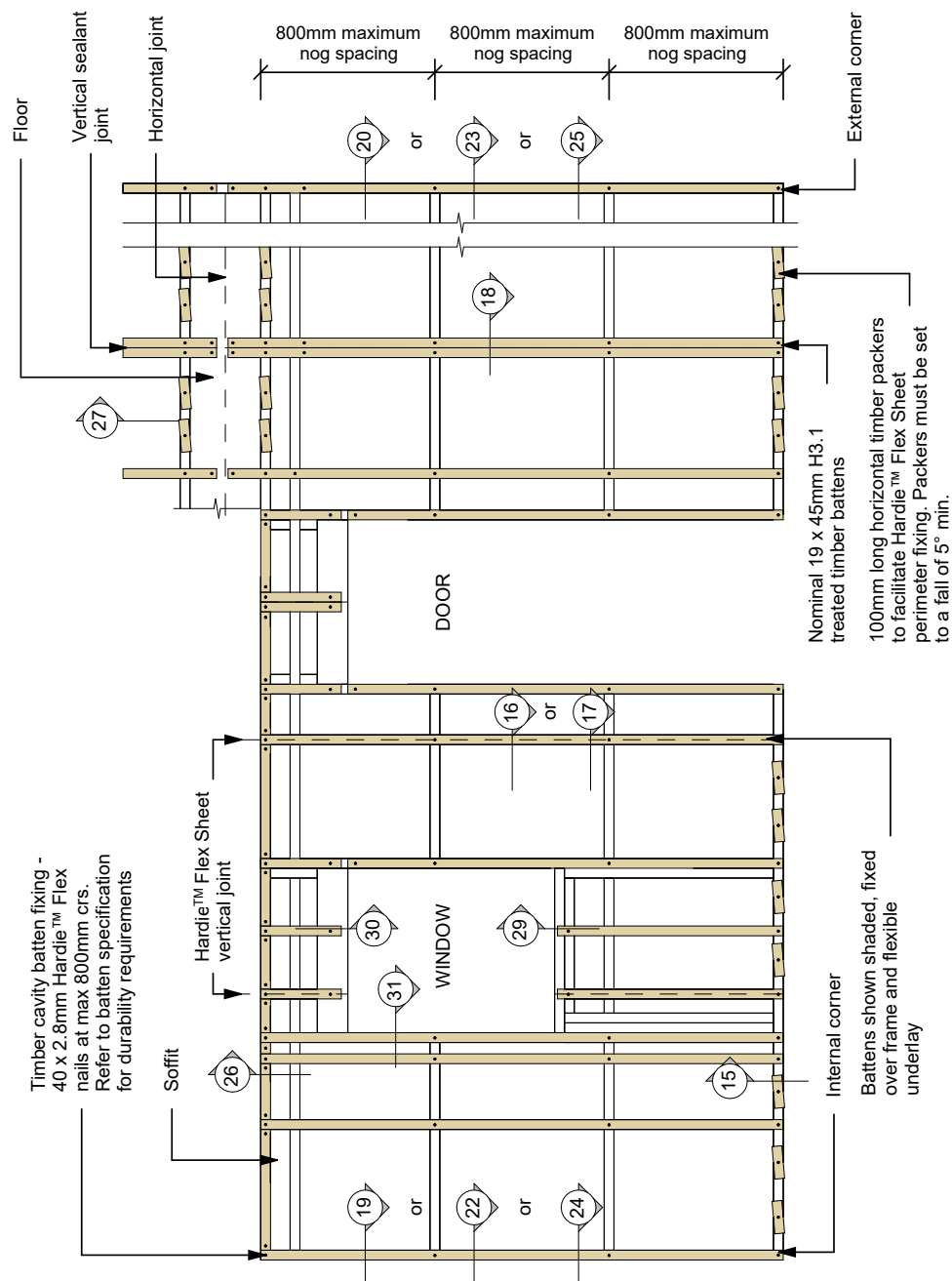
**Figure 12: Direct fix window jamb**



**Note:**

- When HomeRAB™ Pre-Cladding/RAB™ Board is used flashing tape to be applied to the entire window opening
- Site cut edges to be primed, including 100mm across back face from each edge

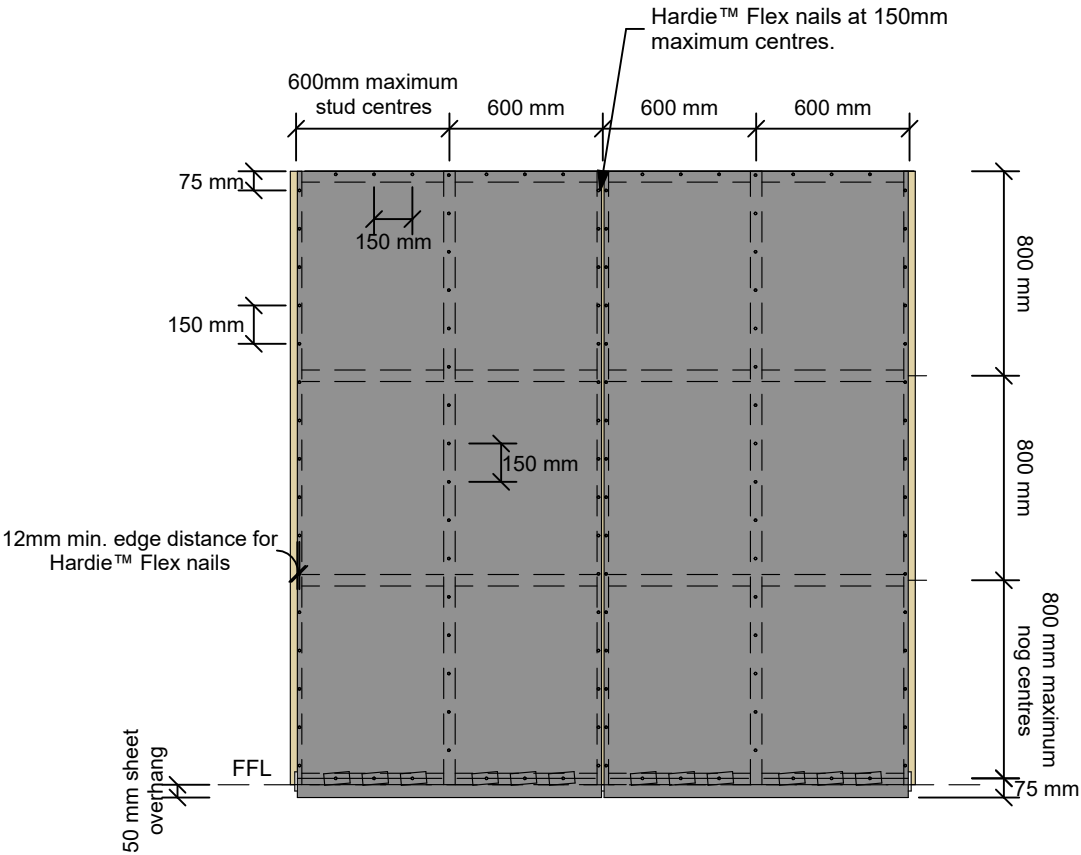
Figure 13: Cavity fix framing



Note:

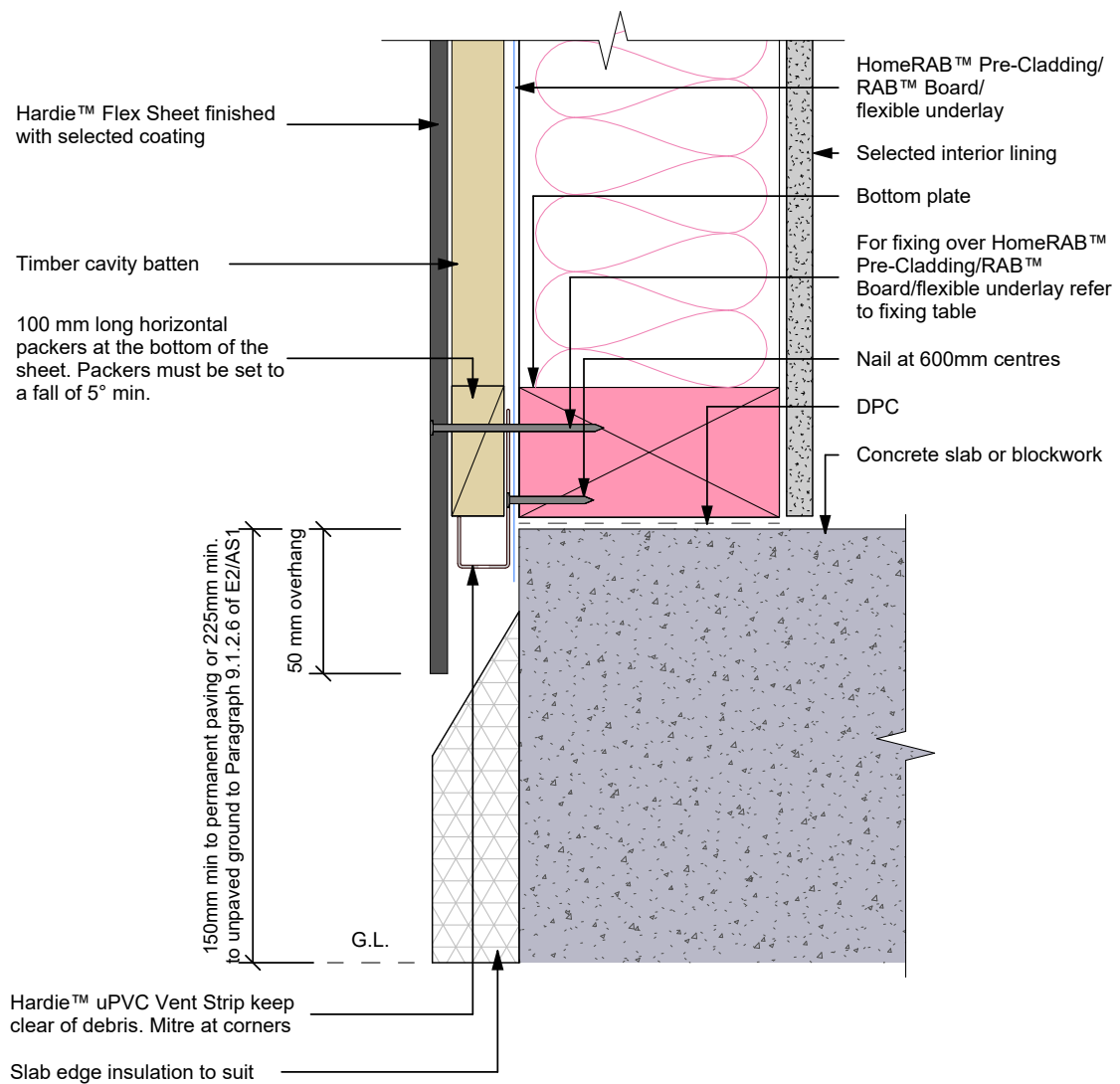
- Maximum stud spacing 600mm centres
- Cavity must not vent into roof space
- The intermediate support for insulation between the studs could be a timber cavity batten, polypropylene tape or 75 mm galvanised wire mesh. Refer to E2/AS1 Paragraph 9.1.7.10
- Polypropylene tape must be fixed horizontally and drawn taut at 300 mm centres.

Figure 14: Cavity sheet fixing



- Note:**
- Hardie™ Flex Sheets must be fixed vertically except for curved wall applications

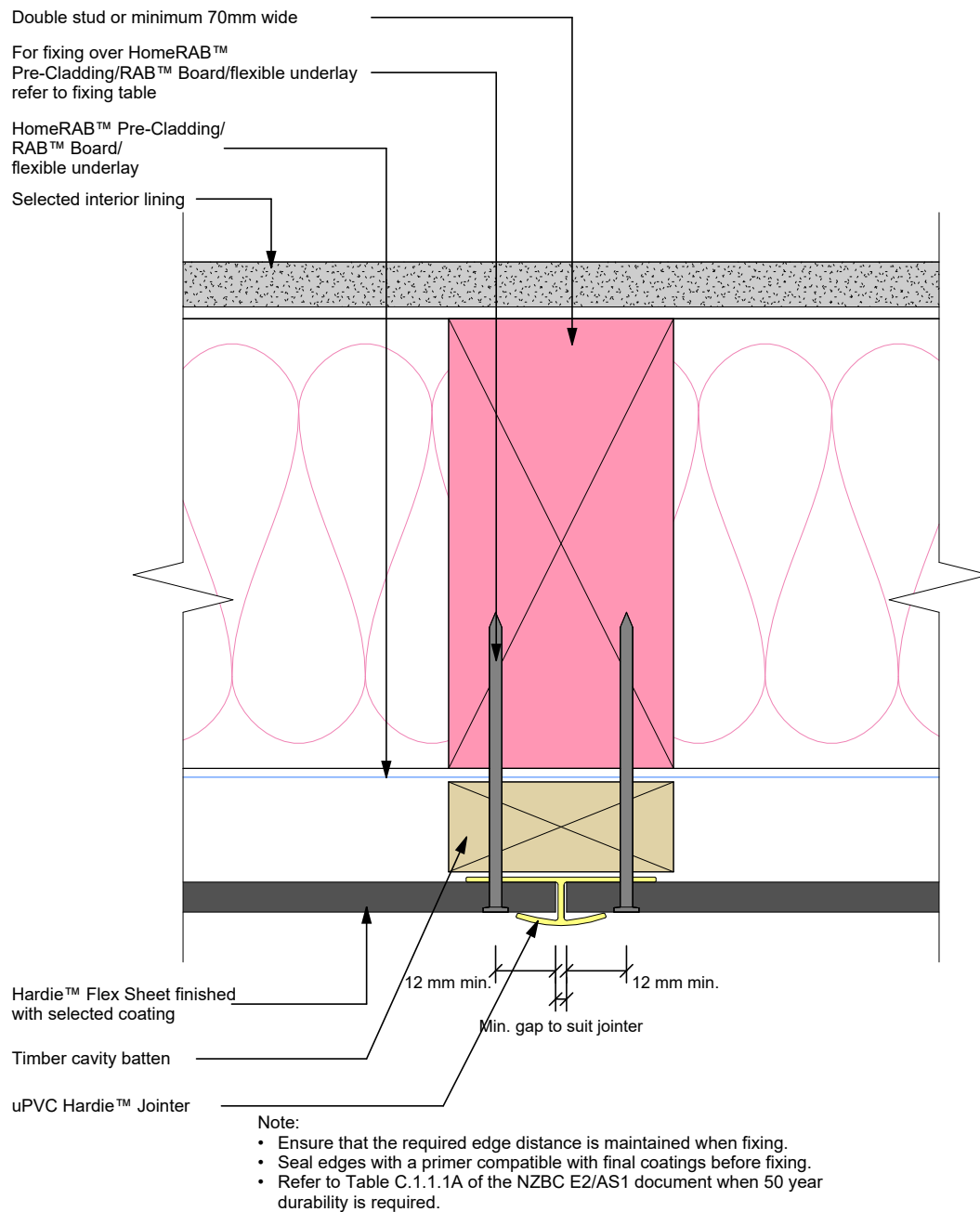
**Figure 15: Cavity concrete foundation detail**



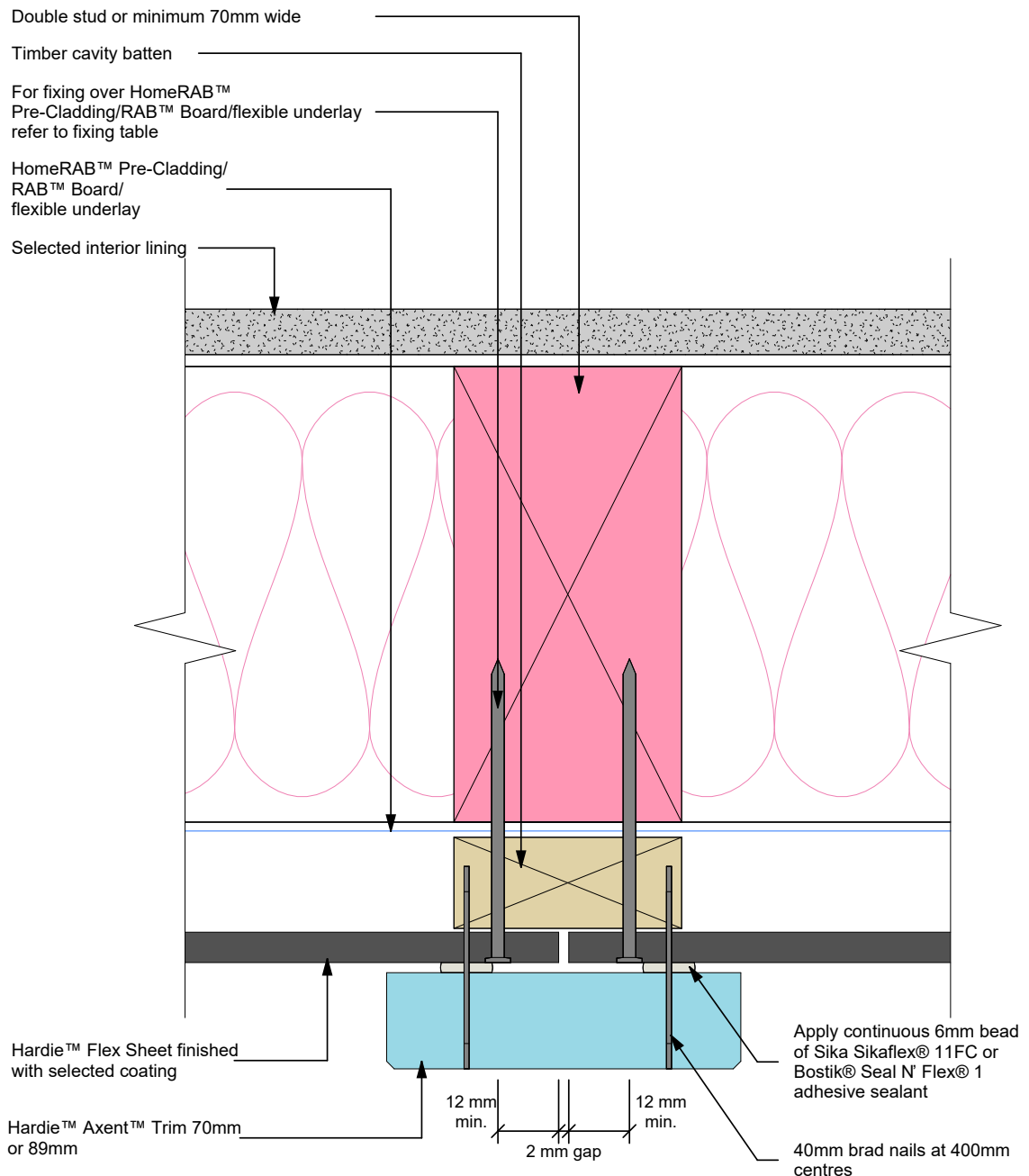
**Note:**

- Seal edges with a primer compatible with final coatings before fixing.
- For uninsulated slab refer to [jameshardie.co.nz](http://jameshardie.co.nz)
- Refer to section Surface Clearances for further information

**Figure 16: Cavity vertical uPVC joint**



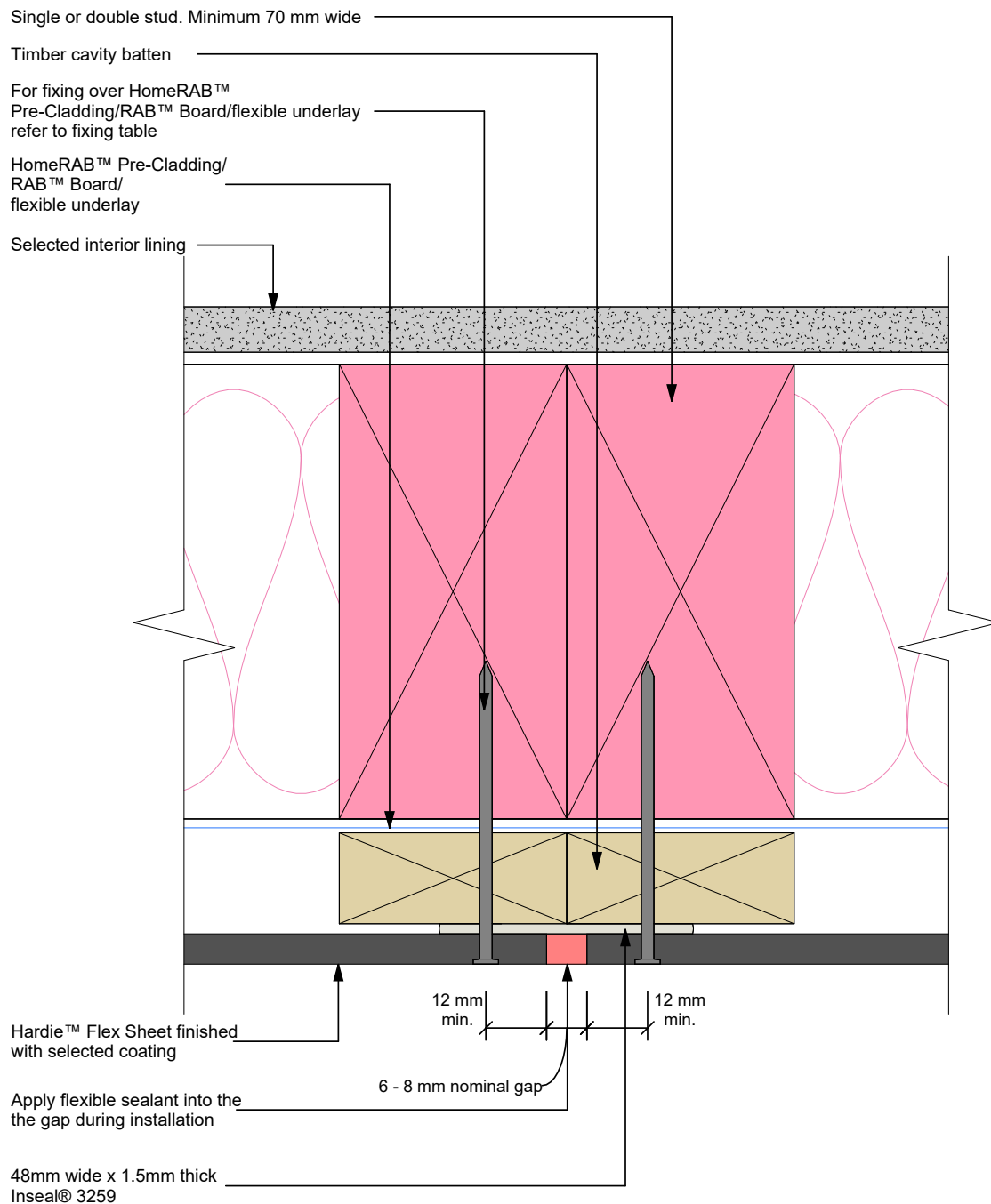
**Figure 17: Cavity vertical Hardie™ Axent™ Trim joint**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.
- Alternatively a 75 x 25mm weathergrooved H3 treated timber batten can be used. Fix batten with two 60 x 2.8mm jolt head nails at 400mm centres.

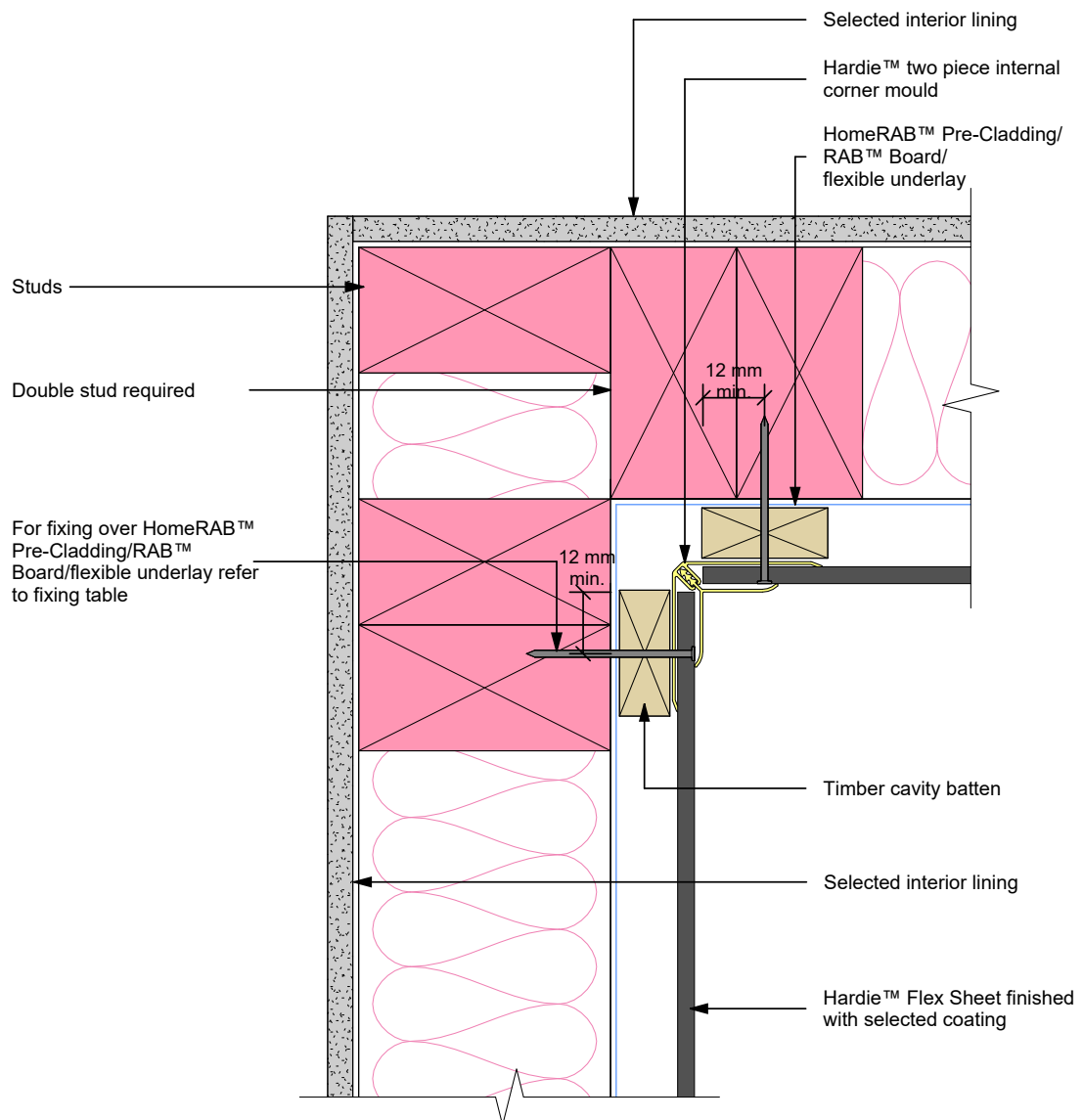
**Figure 18: Cavity vertical sealant joint**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.

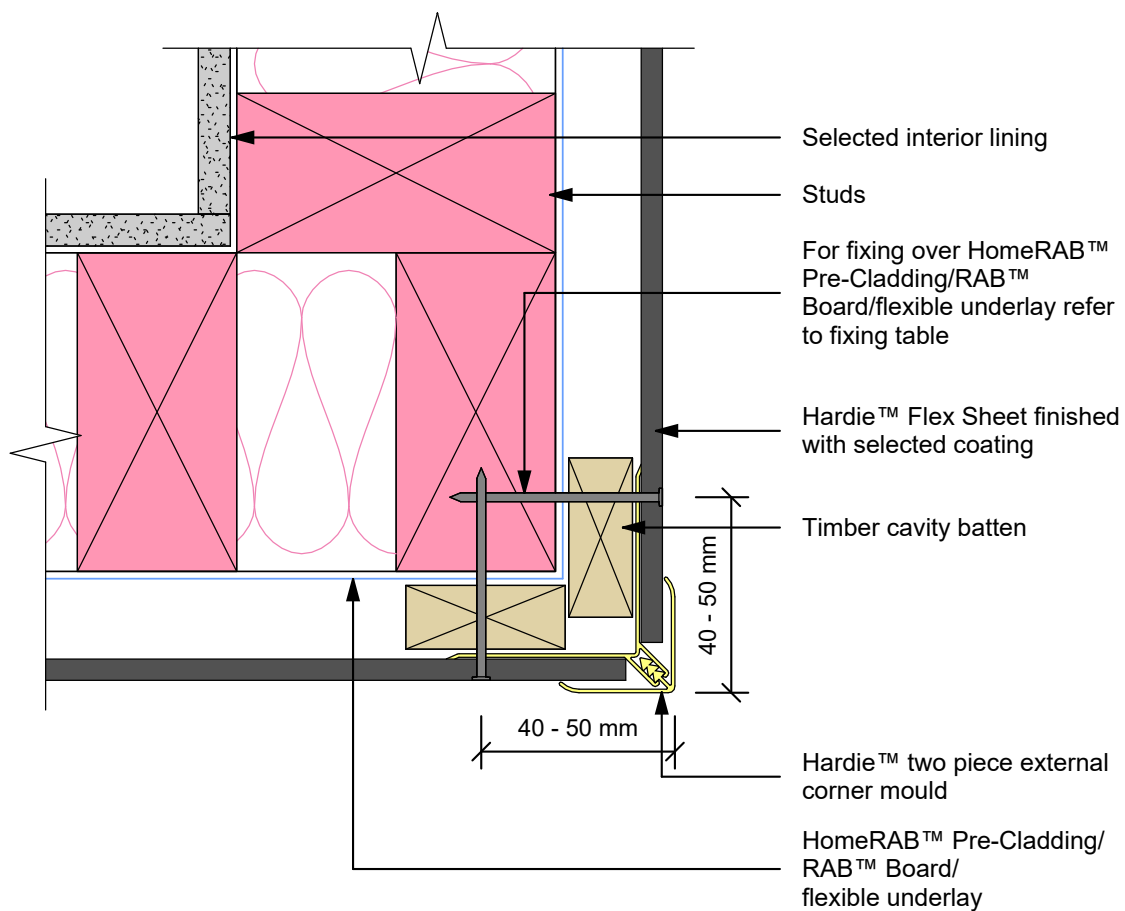
**Figure 19: Cavity internal uPVC corner joint**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

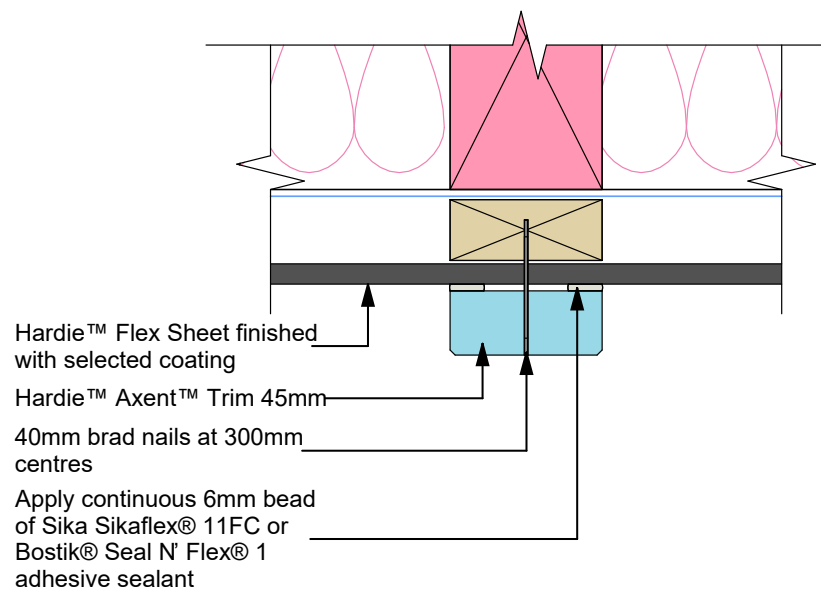
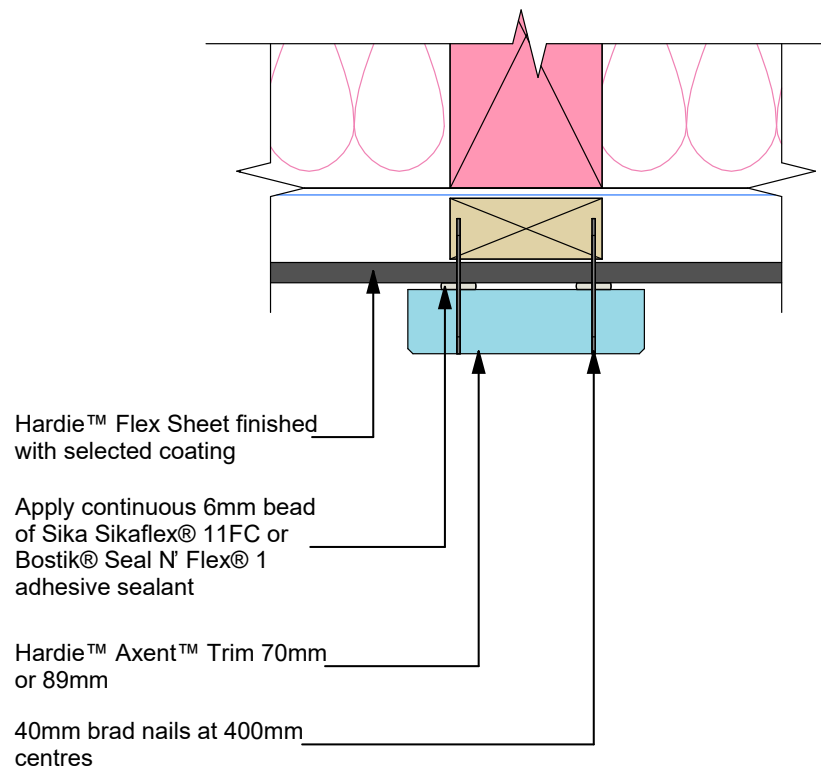
**Figure 20: Cavity external uPVC corner joint**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

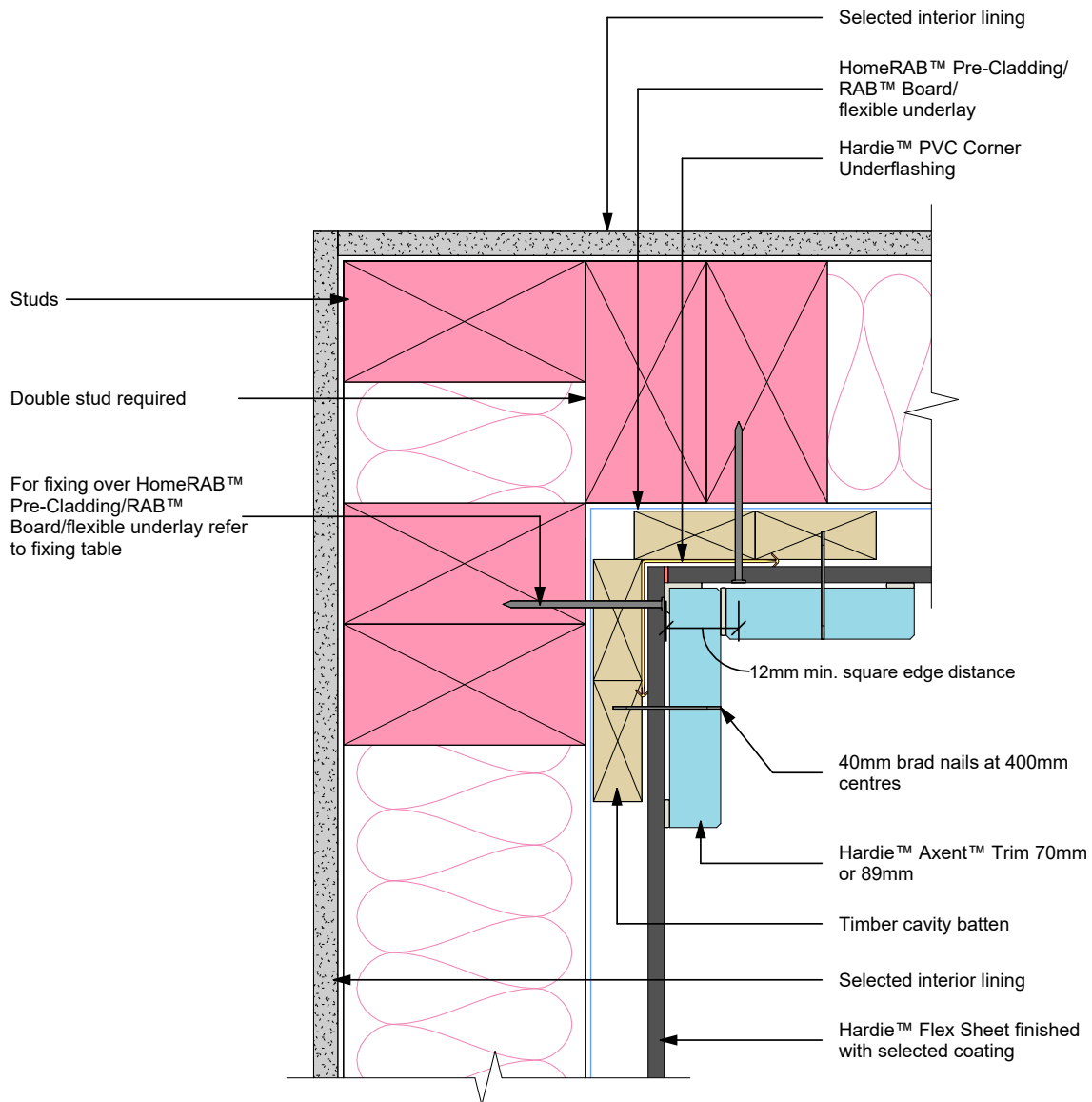
**Figure 21: Cavity internal Hardie™ Axent™ Trim corner**



**Note:**

- Hardie™ Axent™ Trim must be fixed over the studs
- Alternatively a 75 x 25mm weathergrooved H3 treated timber batten can be used

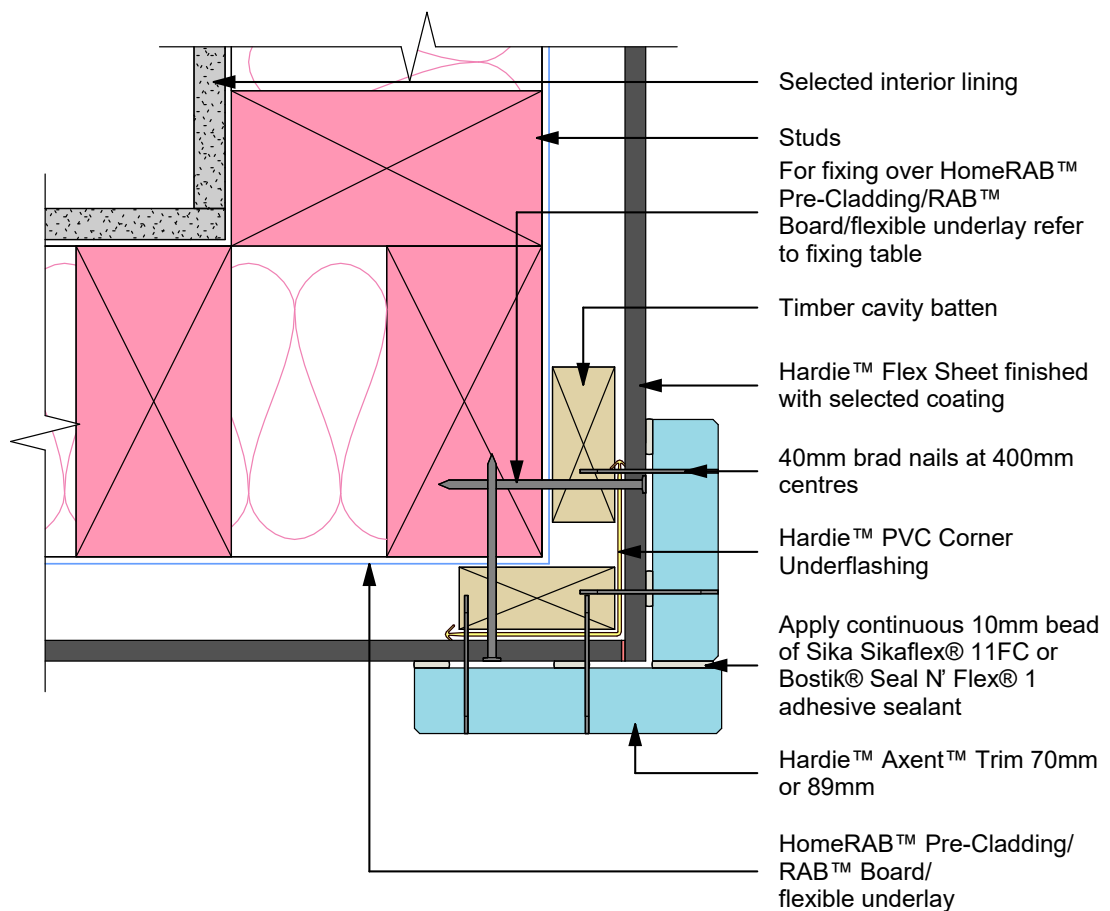
**Figure 22: Cavity external Hardie™ Axent™ Trim corner**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.
- Alternatively a 75 x 25mm weathergrooved H3 treated timber batten can be used.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

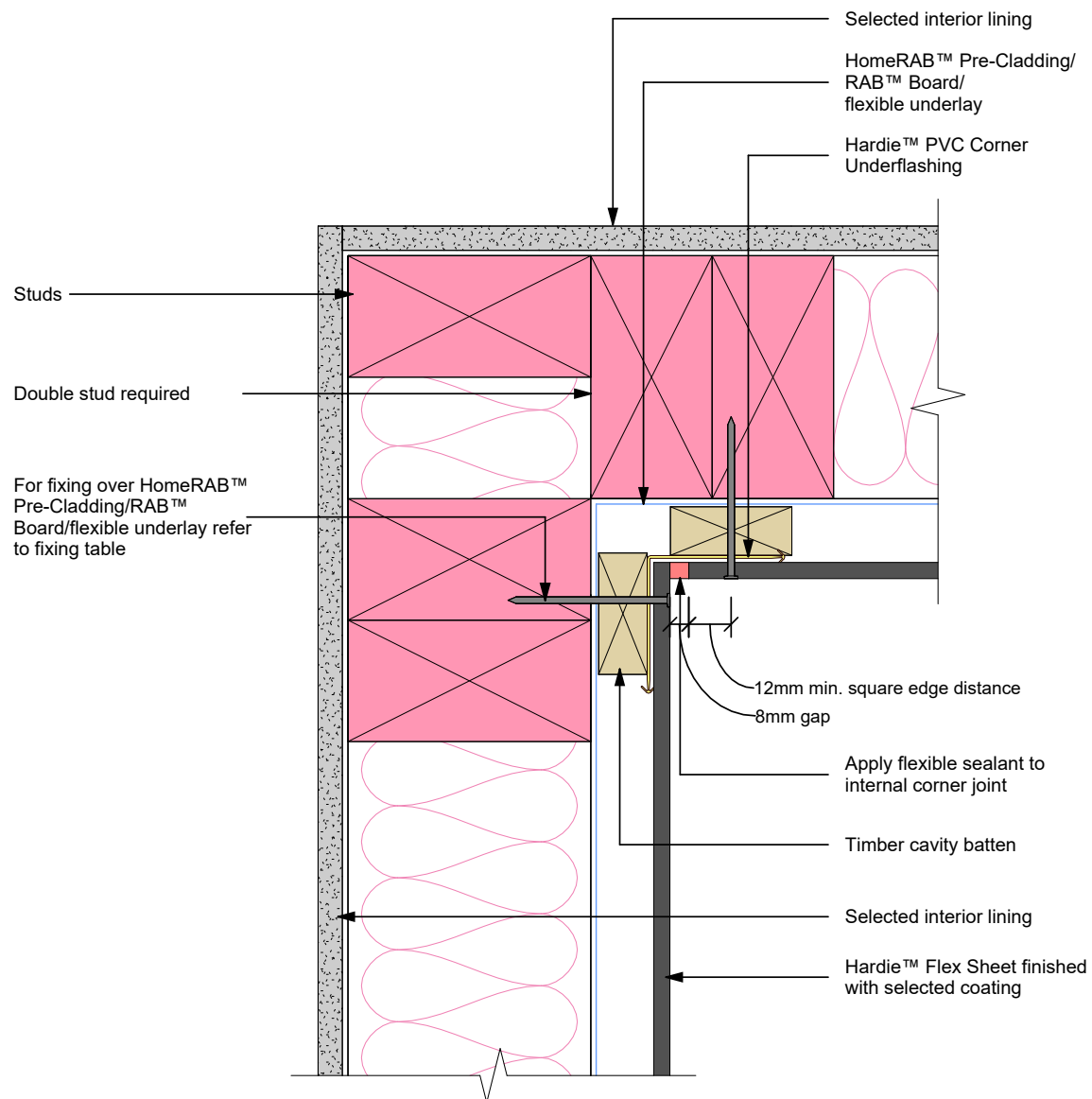
**Figure 23: Cavity external Hardie™ Axent™ Trim corner**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.
- Alternatively a 75 x 25mm weathergrooved H3 treated timber batten can be used.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

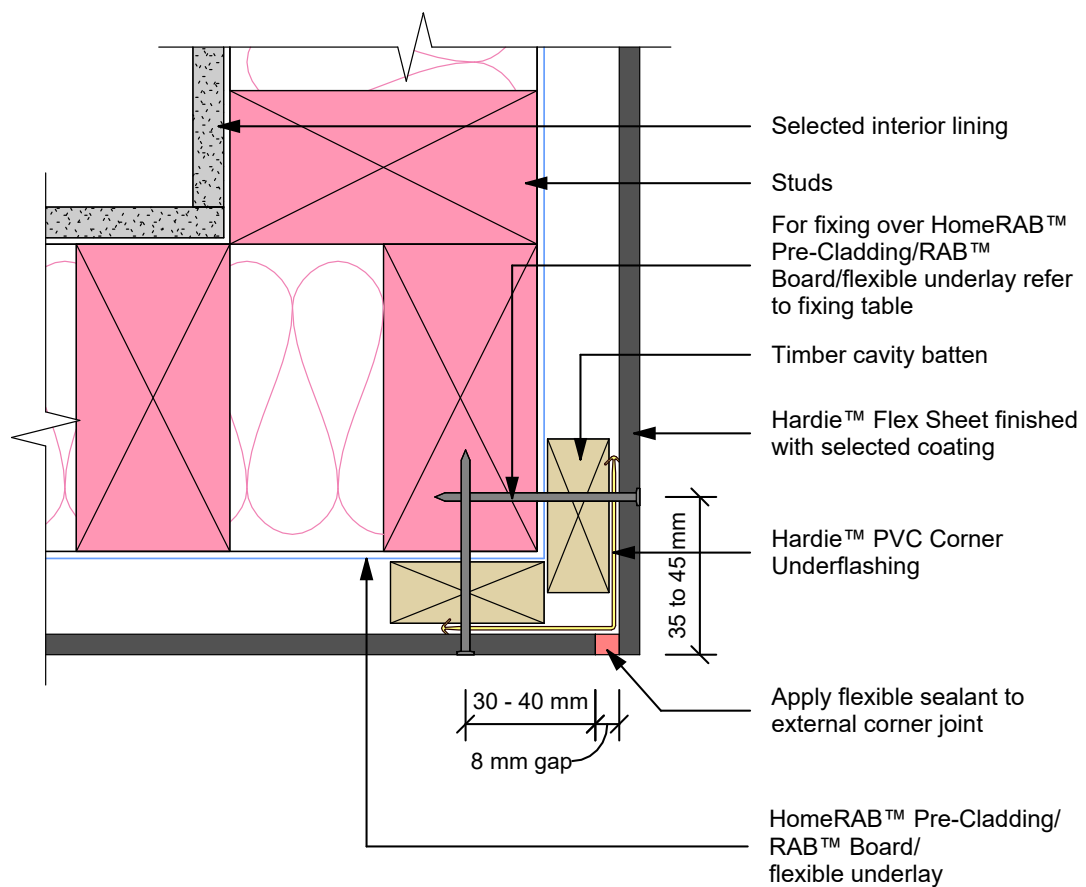
**Figure 24: Cavity internal sealant joint corner**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.
- Alternatively a 75 x 25mm weathergrooved H3 treated timber batten can be used.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

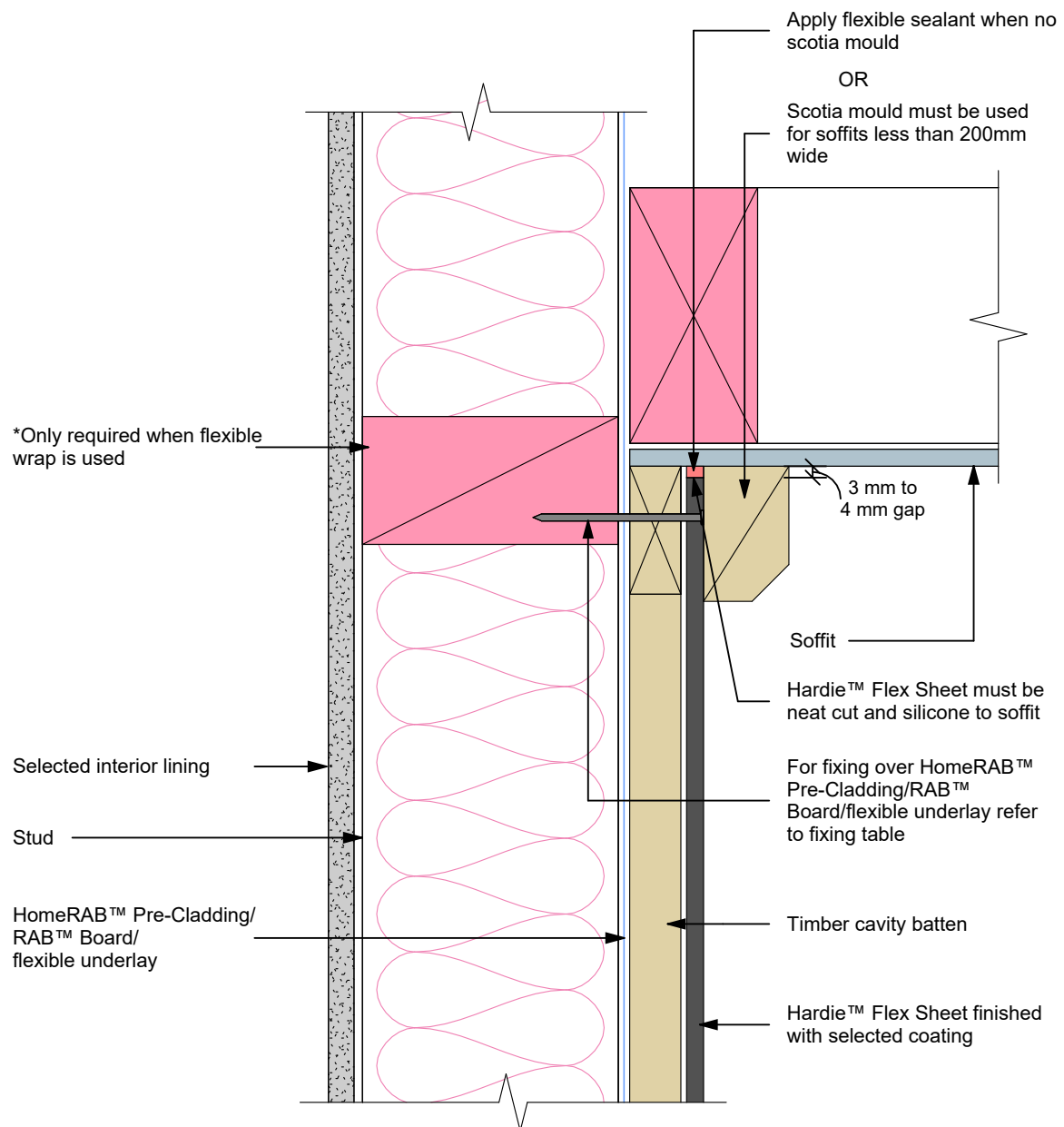
**Figure 25: Cavity external sealant joint corner**



**Note:**

- Ensure that the required edge distance is maintained when fixing.
- Seal edges with a primer compatible with final coatings before fixing.
- Alternatively a 75 x 25mm weathergrooved H3 treated timber batten can be used.
- Refer to Table C.1.1.1A of the NZBC E2/AS1 document when 50 year durability is required.

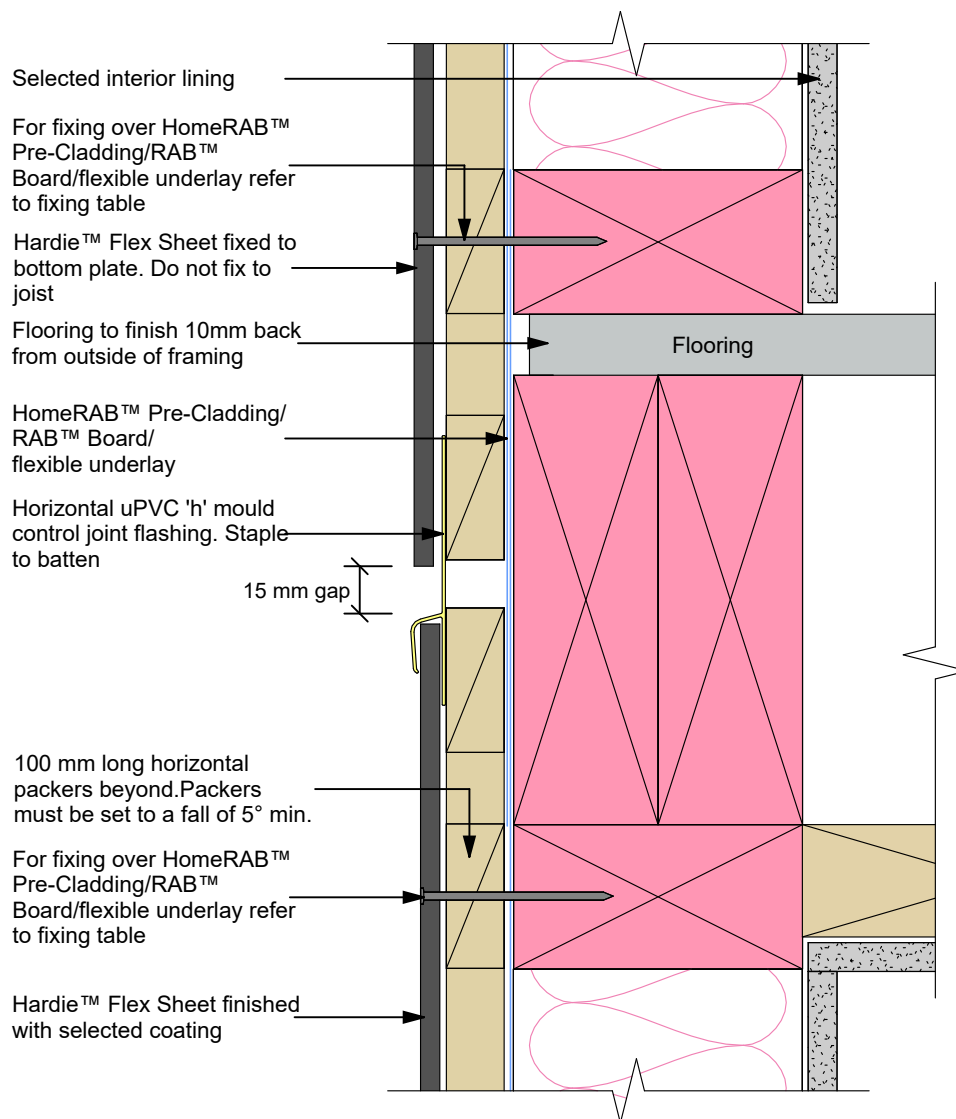
**Figure 26: Cavity soffit detail**



**Note:**

- When 50 year durability is required refer Table C1.1.1A of the NZBC E2/AS1 document.
- Seal edges with a primer compatible with final coatings before fixing.

**Figure 27: Cavity horizontal control joint**



**Note:**

- When 50 year durability is required refer Table C1.1.1A of the NZBC E2/AS1 document.
- Seal edges with a primer compatible with final coatings before fixing.

**Alternative Flashing Option**

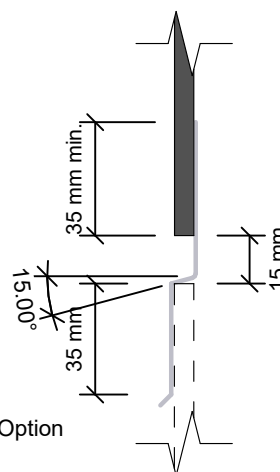
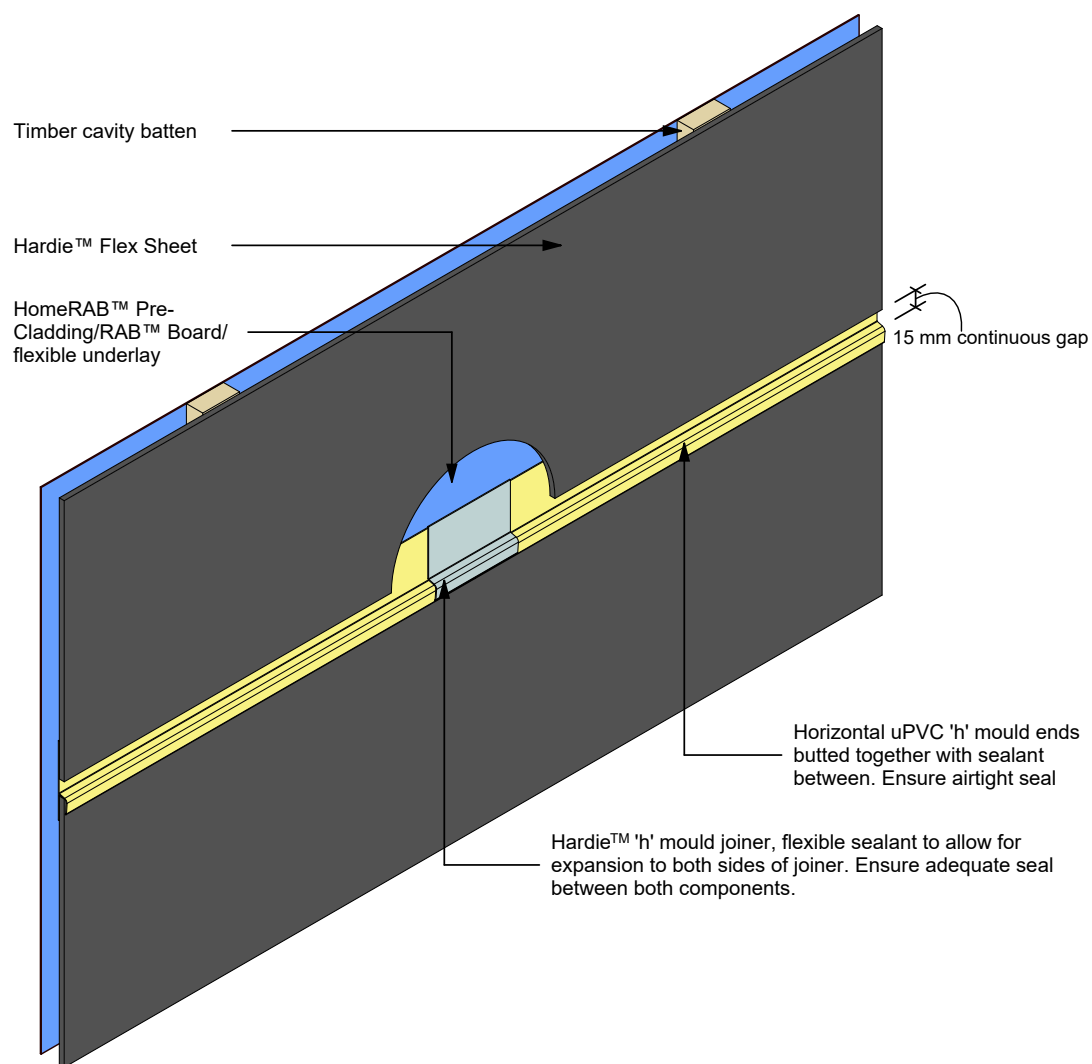
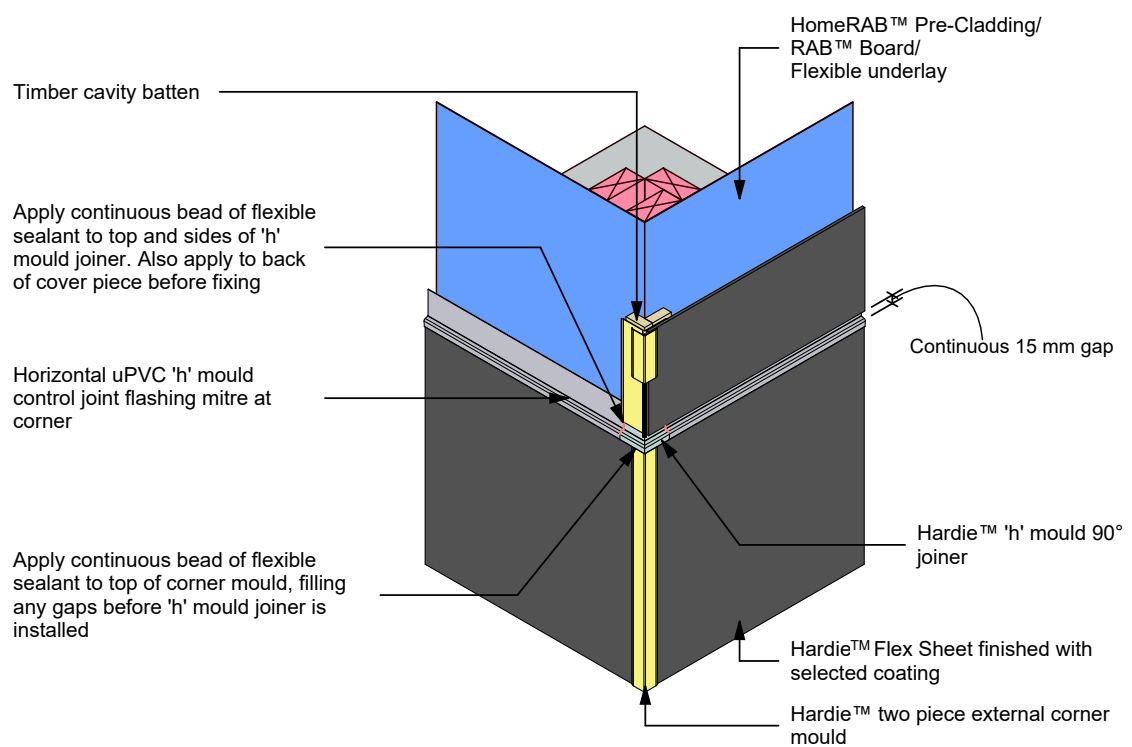


Figure 28: Cavity 'h' mould joint

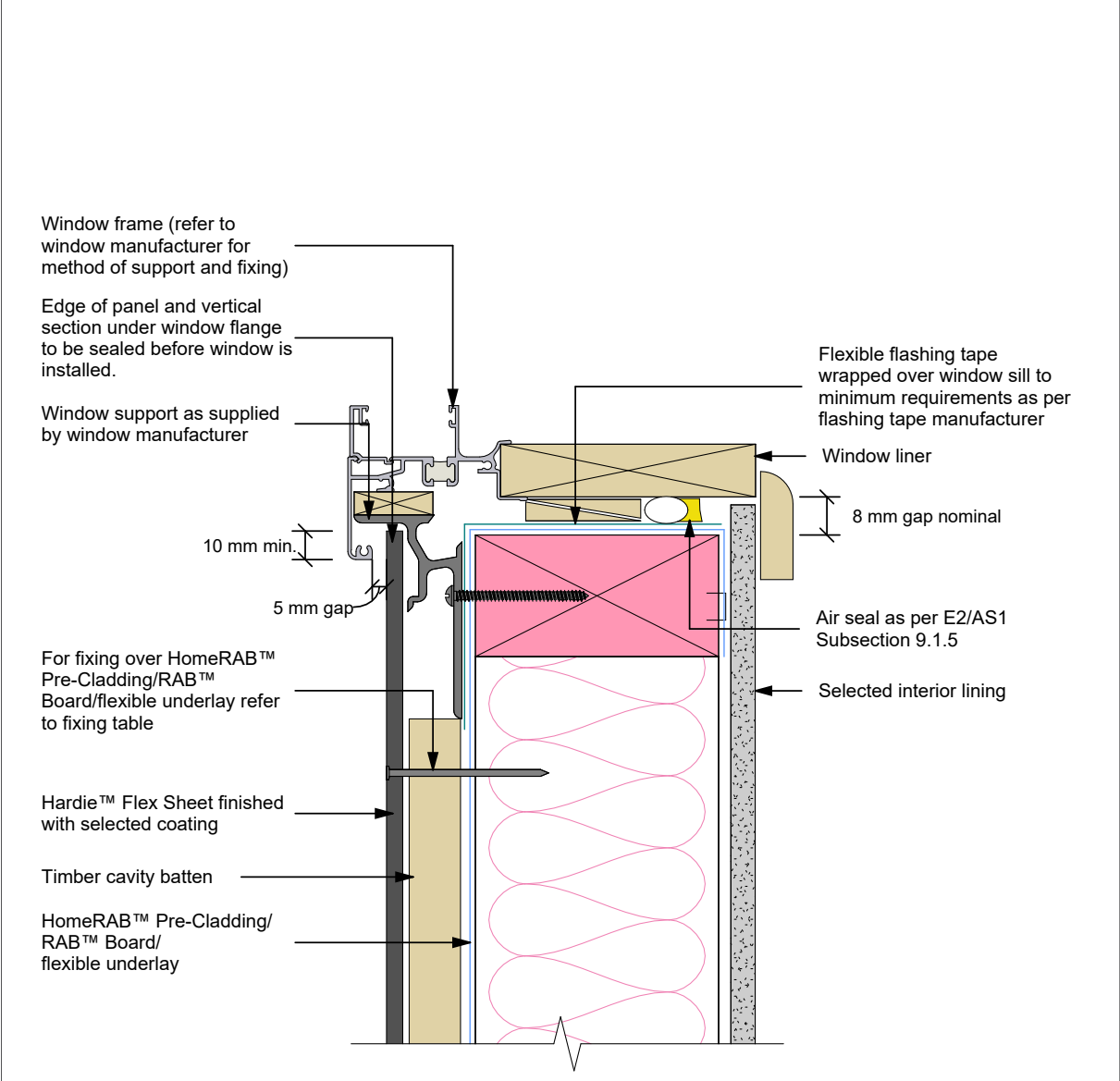


**Figure 29: Cavity corner to 'h' mould joint**



Note: Seal edges with a primer compatible  
with final coatings before fixing.

**Figure 30: Cavity window sill**

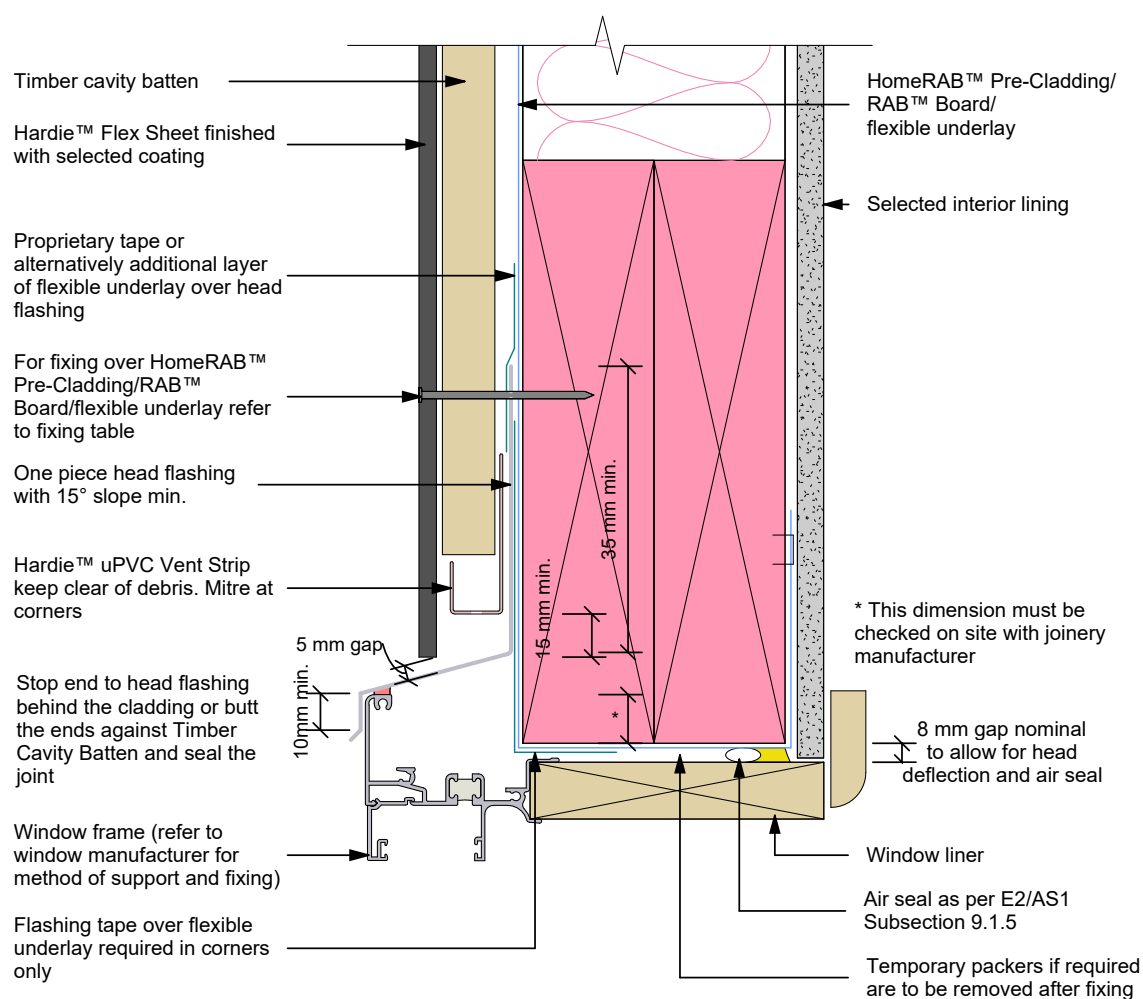


### General notes for materials selection

- Flexible underlay must comply with acceptable solution E2/AS1.
- Flashing tape must have proven compatibility with the selected flexible underlay and other materials with which it comes into contact.
- When using scribes by the jamb, the gap between joinery and cladding at the jamb and sill can be nil

Refer to the manufacturer or supplier for technical information for these materials.

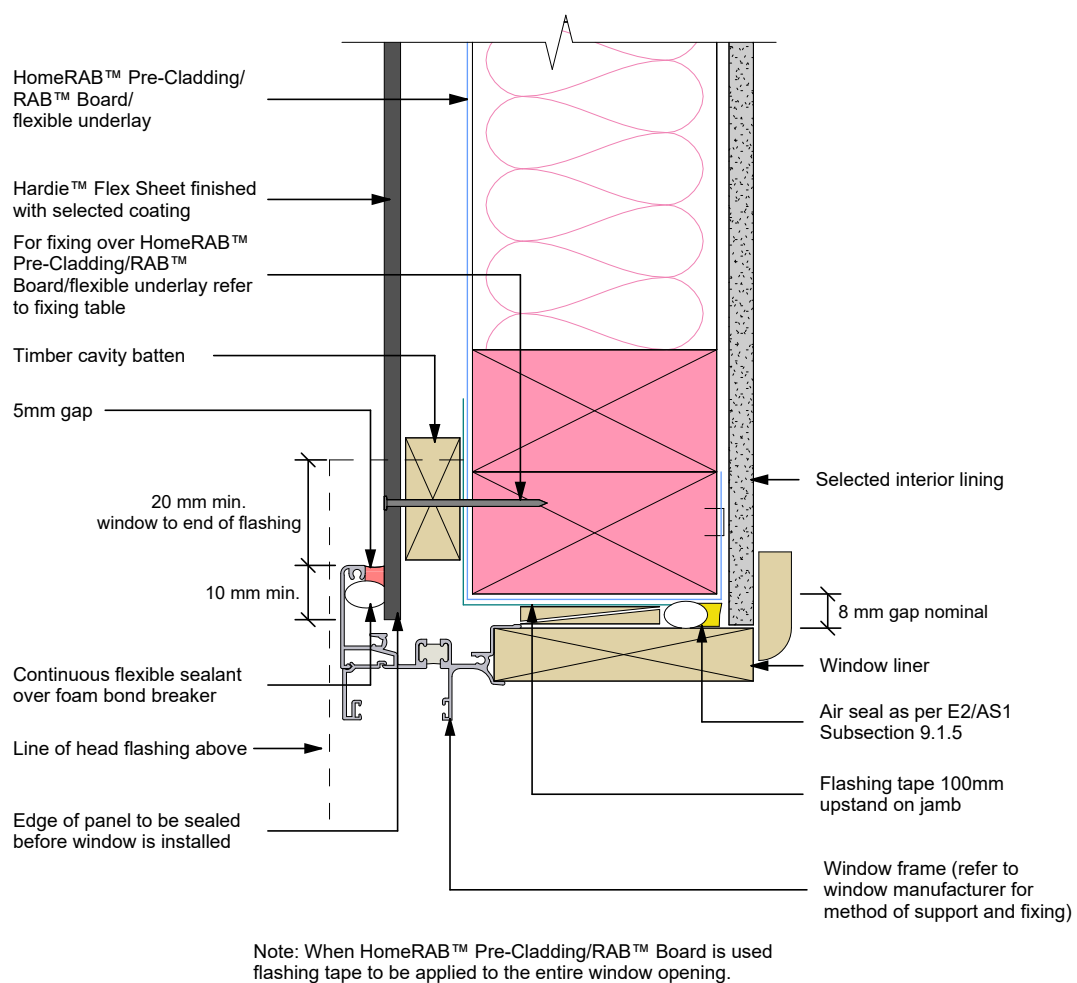
**Figure 31: Cavity window head**



**Note:**

- \* When HomeRAB™ Pre-Cladding/RAB™ Board is used flashing tape to be applied to the entire window opening.
- \* Also refer to Figure 9.7.7.1B NZBC clause E2/AS1 for head and jamb details
- \* Sealant must be applied between head flashing and window flange VH and above wind zone

**Figure 32: Cavity window jamb**



**Figure 33: Cavity one piece apron flashing joint**

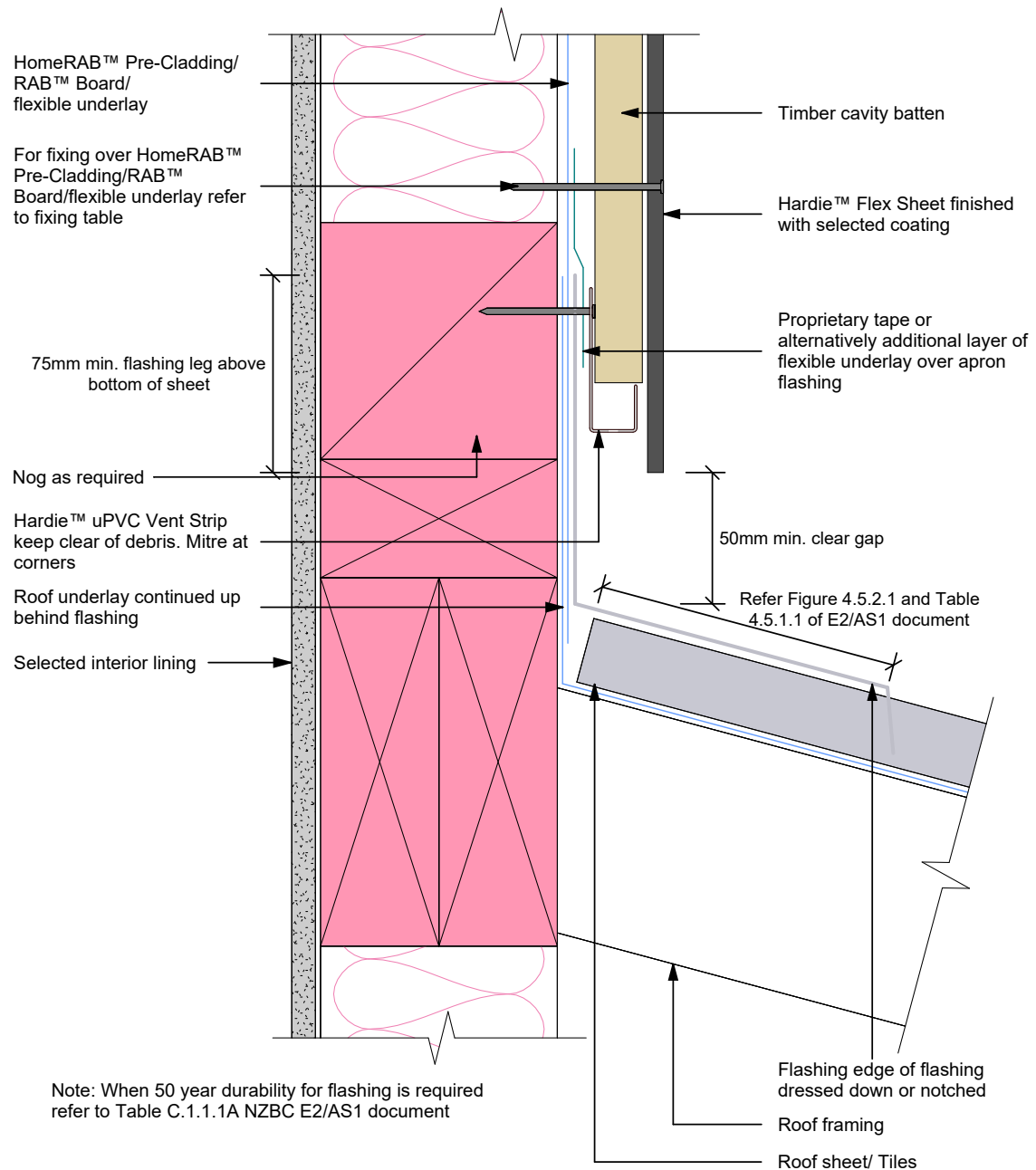
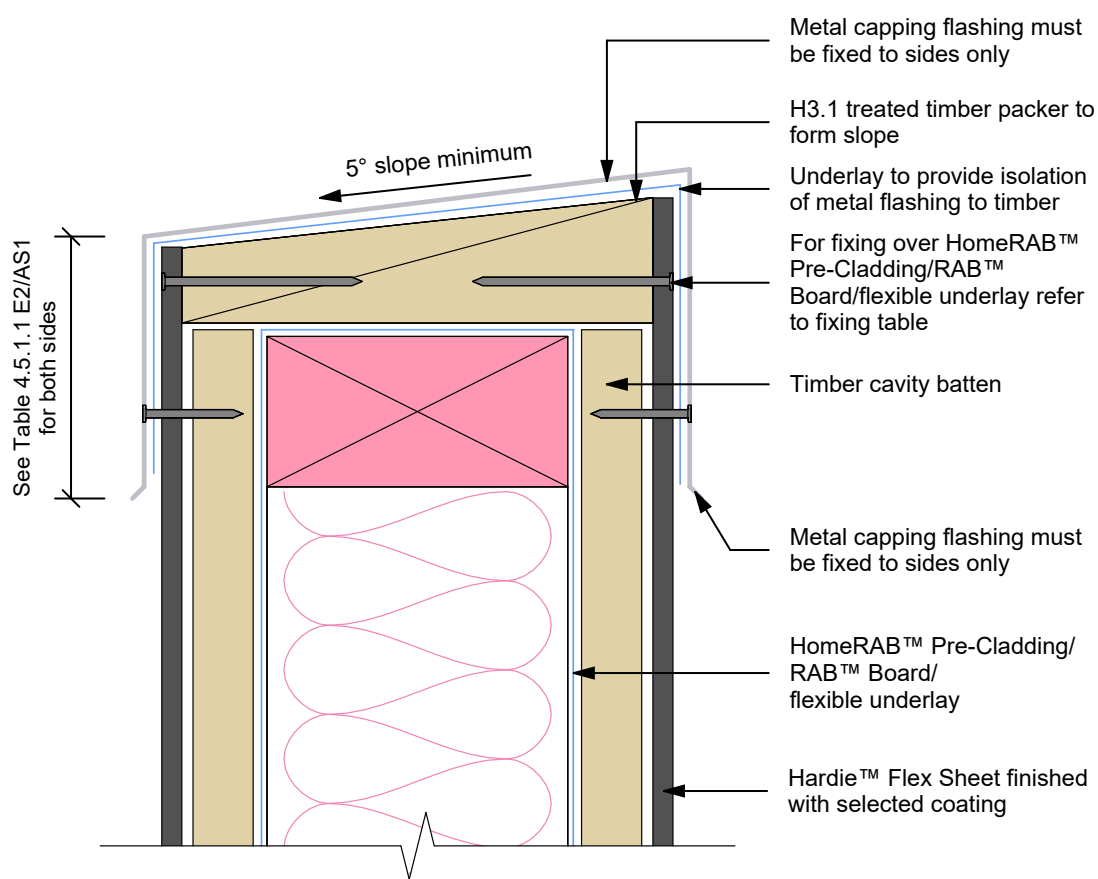
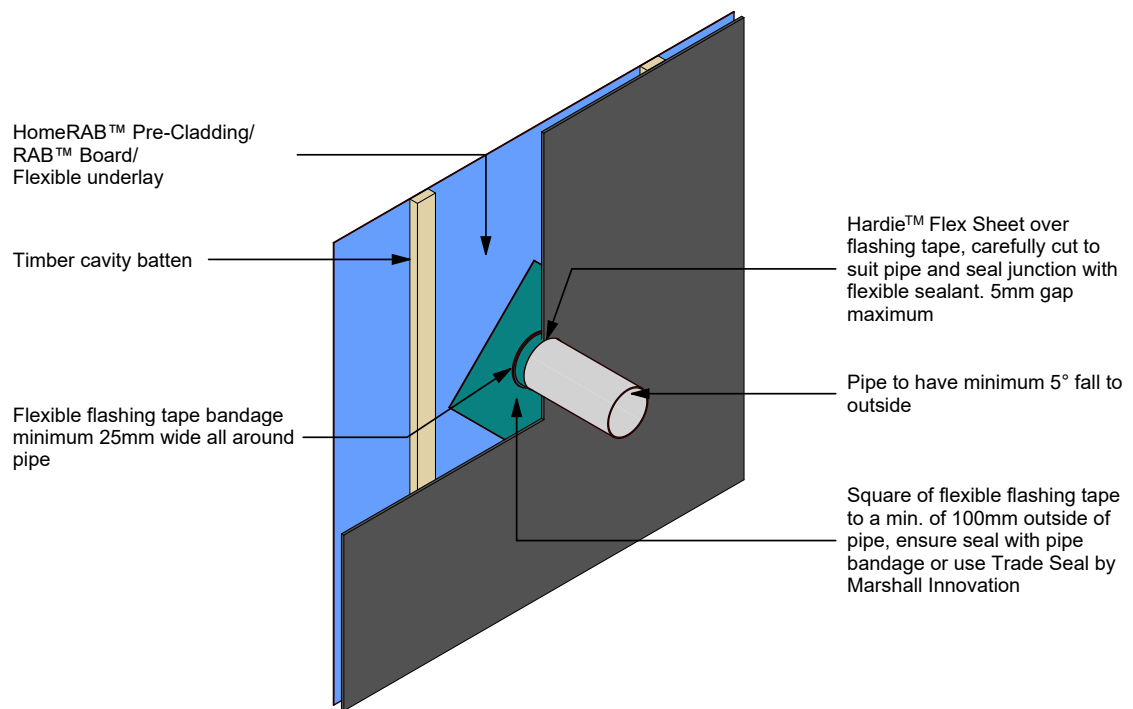


Figure 34: Cavity parapet flashing



**Figure 35: Cavity pipe penetration**



**Note:**

- All site cut edges to be primed.
- Seal edges with a primer compatible with final coatings before fixing.

## Product Warranty

NEW ZEALAND | Effective August 2024

This warranty is given by James Hardie New Zealand Limited ("James Hardie", "we", "its" and "us").

In this warranty:

- **"Consumer"** has the meaning given to it in the Consumer Guarantees Act; ;
- **"Product"** refers to the item listed below:

Hardie™ Flex Sheet

- **"Technical Literature"** means the product specific installation guide published by James Hardie at the time of installation of the product (copies of the current installation instructions are available at jameshardie.co.nz or by calling Ask James Hardie™ on 0800 808 868); and
- **"Warranty Period"** means fifteen (15) years.

## Warranty

1. Subject to the conditions and limitations set out below, we warrant that for the Warranty Period from the date of purchase, the Product will be free from defects due to defective factory workmanship or materials.
2. James Hardie further warrants that for a period of 15 years from the date of purchase of the Product that any associated accessories supplied by us will be free from defects due to defective factory workmanship or materials.
3. James Hardie warrants that at the time of manufacture the Product will comply with AS/NZS 2908.2:2000 Cellulose-cement products - Flat sheet.
4. This warranty is not transferable and is only provided to and may only be relied upon by:
  - (a) the first purchaser of the Product or accessory from James Hardie; and
  - (b) the last purchaser of the Product or accessory prior to installation.
5. If a breach of this warranty occurs, we will (at our option) either: supply replacement Product or accessory; rectify the affected Product or accessory; or pay for the reasonable and substantiated cost of the replacement or rectification of the affected Product or accessory.

## Warranty Conditions

6. You may only claim under this warranty if:
  - (a) the Product was installed and maintained strictly in accordance with the Technical Literature including the components or products specified or recommended in the Technical Literature; and
  - (b) other products applied to or used in conjunction with the Product are applied or installed and maintained strictly in accordance with the relevant manufacturer's instructions and good trade practice; and
  - (c) the Product is used in an application designed and constructed in strict compliance with all relevant provisions of the New Zealand Building Code ("**NZBC**"), applicable laws, regulations and standards; and
  - (d) we are given reasonable opportunity to inspect the Product **before** any attempt is made to repair or remove the Product once it has been installed; and
  - (e) the requirements for bringing a claim under the warranty as set out in clause 8 are complied with.

7. Subject to clauses 10 and 11:

- (a) to the fullest extent permitted by law, we exclude all:
  - (i) other warranties, conditions, liabilities and obligations which may otherwise apply in respect of the purchase or use of the Product and/or its Technical Literature, other than those specified in this warranty; and
  - (ii) liability for any loss or damage (whether direct or indirect) including property damage or personal injury, consequential loss, economic loss or loss of profits, the purchase or use of the Product and/or its Technical Literature whether arising in contract, tort (including negligence), statute or equity.
- (b) if or to the extent that it is not permitted by law to so limit our liability as set out in clause 7(a), then to the fullest extent permitted by law, we limit our liability at our option to:
  - (i) the replacement of the Product or accessory or the supply of equivalent Product or accessory;
  - (ii) the repair of the Product or accessory;
  - (iii) the payment of the cost of replacing the Product or accessory, or of acquiring equivalent Product or accessory; or
  - (iv) the payment of the reasonable and substantiated cost of having the Product or accessory repaired;
- (c) this warranty does not cover defects which are not due to defective factory workmanship or materials, including but not limited to damage or defects caused by or arising from or attributable to:
  - (i) use of the Product in applications not recommended by us or in accordance with the Technical Literature;
  - (ii) the Product being subjected to abnormal treatment including impact, abrasion or mechanical action;
  - (iii) surface marking, scratches or stains arising during or after the installation of the Product;
  - (iv) poor workmanship or installation, poor design or detailing, settlement or structural movement and/or movement of materials to which the Product is attached;
  - (v) incorrect design of the structure;
  - (vi) acts of God including but not limited to earthquakes, fire, cyclones, floods or other severe weather conditions or unusual climatic conditions;
  - (vii) efflorescence, normal wear and tear, growth of mould, mildew, fungi, bacteria, or any organism on any Product surfaces or Product (whether on the exposed or unexposed surfaces);

- (viii) contact with chemicals such as solvents, detergents and pollutants, or exposure to a harsh chemical environment or an excessively salty environment;
- (ix) use of adhesive tapes, sealants or mastics on the Product, or recoating of the surface of the Product outside of the recommended maintenance guidelines in the Technical Literature; or
- (x) failure of third party coating systems, including but not limited to sealers and paints; and
- (xi) **this warranty does not cover** any variation in the look of the Product including but not limited to: any variation in colour or surface pattern; any variation between different batches of the Product; or any variation against any sample material provided. The architect/builder/installer must ensure **prior to specification** that variation in look between items of Product is acceptable and ensure that each item of Product meets all aesthetic requirements **prior to installation**. Subject to the terms of this warranty, after installation of the Product, **we are not liable** for claims arising from aesthetic variations or defects if such variations or defects were, or would upon reasonable inspection have been, **apparent prior to installation**.

## Making a Claim Under Warranty

If you are the property owner and did not purchase the product yourself, and you believe you have any issue with James Hardie product installed at your home, in the first instance you should contact the builder who purchased and installed the product. If you purchased the product yourself, you can make a claim under this warranty as detailed below.

8. In order to make a claim under this warranty, you must provide the following information in writing to us using the contact details below within 30 days after the alleged defect would have become reasonably apparent or, if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation:
  - (a) proof of purchase;
  - (b) description of the defect and the issue;
  - (c) photographs of the defect; and
  - (d) your contact details.
9. Subject to New Zealand Consumer Law, you must bear any expenses you incur as a result of claiming under this warranty, except where you are entitled to recover such expenses under the New Zealand Consumer Law, in which case we will bear or otherwise reasonably compensate you for such expenses. All claims for such expenses are to be notified to us in writing within 21 days from the later of: when you make a claim under this warranty; or when we notify you that we, acting reasonably, accept responsibility for these expenses.

## New Zealand Consumer Law

10. If you acquire the Product or accessories manufactured or supplied by us as a Consumer, that Product or accessories may come with guarantees that cannot be excluded under the Consumer Guarantees Act. If so, and we are a supplier, you are entitled to a replacement or refund for a failure of a substantial character or a failure that cannot be remedied, and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality or fail to meet some other guarantee and can be remedied and the failure is not of a substantial character. Where we or a related entity are the manufacturer, then you will have the rights set out in the Consumer Guarantees Act if the goods do not comply with this warranty or the consumer guarantees under the Consumer Guarantees Act.
11. Other than as lawfully excluded or limited by the other terms of this warranty, any rights a Consumer may have under this warranty are in addition to other rights and remedies of a Consumer under a law in relation to the goods to which this warranty relates. Nothing in this warranty shall exclude or modify any legal rights a purchaser and/or Consumer may have under the Consumer Guarantees Act, Fair Trading Act or otherwise which cannot be excluded or modified at law.

## Disclaimer

The recommendations in James Hardie's literature are based on good building practice but are not an exhaustive statement of all relevant information. Further, as the successful performance of the relevant system depends on numerous factors outside the control of James Hardie (e.g. quality of workmanship and design) James Hardie shall not be liable for the recommendations made in that Technical Literature and the performance of the relevant system, including its suitability for any purpose or ability to satisfy the relevant provisions of the NZBC, laws, regulations and standards. It is the responsibility of the building designer to ensure that the details and recommendations provided in the relevant James Hardie Technical Literature are suitable for the intended project and that specific design is conducted where appropriate.

## Our Contact Details

### James Hardie New Zealand Limited

**Address:** 1 O'Rorke Road, Penrose, Auckland, 1061

**Postal address:** PO Box 12070, Penrose, Auckland 1642

**Telephone:** "Ask James Hardie™" on 0800 808 868

**Website:** [www.jameshardie.co.nz](http://www.jameshardie.co.nz)

**Email:** [info@jameshardie.co.nz](mailto:info@jameshardie.co.nz)



## Notes

