



External Cladding  
**TECHNICAL  
MANUAL**

*PRIMAflex™*

*PRIMAp plank™*

*PRIMAbase™*



# introduction

HUME CEMBOARD INDUSTRIES SDN BHD offers alternative premium quality building products under “PRIMA” brand for use in residential houses and commercial buildings.

**PRIMA** cellulose fibre reinforced cement flat sheets are autoclaved single faced building boards manufactured by HUME CEMBOARD INDUSTRIES SDN BHD in accordance with AS/NZS 2908.2 Cellulose-cement products, Part 2: Flat Sheets.

Accredited with MS ISO 9001:2000, HUME CEMBOARD INDUSTRIES SDN BHD delivers products with consistent premium quality, backed with excellent customer service.

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*A beautiful and everlasting home*

## Exterior Product Range

PRIMA exterior product range includes:

- **PRIMAplank™** siding
- **PRIMAflex™** cladding, eaves and ceiling linings
- **PRIMAbase™** texture coating base board.

### BASIC COMPOSITION

Basic ingredients of the products are Portland cement, finely ground sand, top grade quality pulp from NZ and water.

### MOISTURE CONTENT

Moisture content at EMC is approximately 7% and at saturation is 33%.

*Note:*

*Where values are stated at EMC, the ambient temperature is 27°C± 2°C and relative humidity is between 65% - 95%.*

### BUILDING CODE COMPLIANCE

The requirements set out in the Building Code and local Building Regulatory Authority must be checked and verified prior to the commencement of work to ensure their compliance.



### APPRAISALS

**PRIMAflex™** Cladding Eaves Lining Boards have been appraised by CSIRO in meeting the requirements of Clauses CP4, FP1.4, P2.2.2 and P2.3.1 of the Building Code of Australia (including Amendments 1 and 2).

OPUS International Consultant Limited, New Zealand has determined the compliance of **PRIMAplank™**, **PRIMAflex™** and **PRIMAbase™** boards to **AS/NZS 2908.2** Cellulose-cement products, Part 2 – Flat Sheets.

### SERVICEABLE LIFE

The performance of **PRIMA** products is limited only by the durability of the supporting structure and the materials used in the installation. When installed and maintained as per good building practice and specifications described in this manual, **PRIMA** products are expected to have a serviceable life of 50 years\*.

*\*Appraised by BRANZ based on New Zealand Building Code.*



## FIRE RESISTANCE

**PRIMAplank™**, **PRIMAflex™** and **PRIMAbase™** have been tested by CSIRO Australia in compliance with AS 1503.3 and have achieved the following indices-

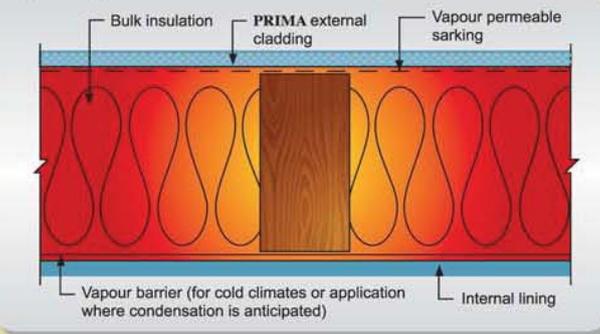
Early Fire Hazard Indices	
Ignition Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke Developed Index	0-1

**PRIMA** cellulose fibre reinforced cement products are deemed incombustible in accordance with the Building Code of Australia.

## SARKING

It is recommended that a layer of vapour permeable building paper sarking be applied to the exterior side of the wall framing prior to installation of cladding material. Sarking can be of the reflective or non-reflective type. Reflective sarking such as foil-backed building paper will improve the thermal insulation properties of a wall, and protect against water ingress. Sarking must be installed as per manufacturer's instructions.

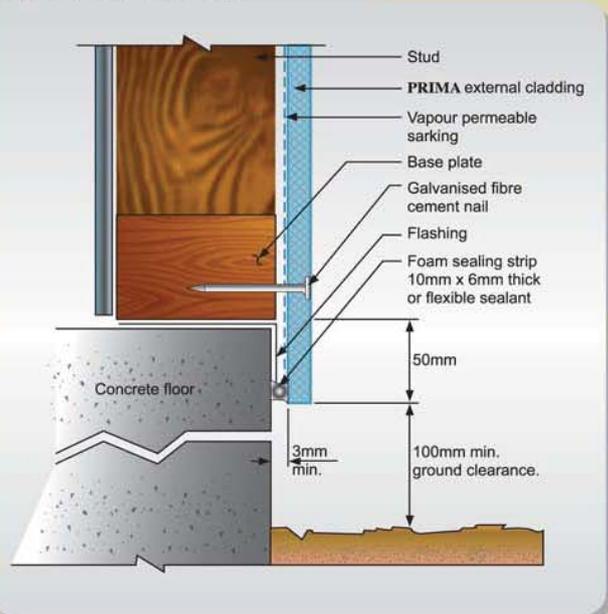
Figure 1: Typical External Wall Section



## VAPOUR BARRIER

In cold climates or applications where substantial temperature difference is anticipated, provide a layer of a vapour barrier on the higher temperature side of the wall. The vapour barrier will prevent condensation within the wall cavity. Refer to Figure 1.

Figure 2: Bottom Plate Detail



## THERMAL INSULATION

A typical exterior wall constructed with **PRIMAplank™**, **PRIMAflex™** or **PRIMAbase™** cladding, a layer of reflective building paper, 100mm timber stud and 10mm plasterboard lining will produce an R value of 0.8°C m<sup>2</sup>/W. In applications where higher thermal insulation is required, the R value may be increased by filling up the wall cavity with insulation material such as fibreglass batts. Sarking must be provided when using bulk insulation.

Example: The inclusion of R1.5 batts in the above construction will give an R value of approximately 1.8°C m<sup>2</sup>/W.

## CONCRETE FLOOR SLAB DETAIL

Sheets should be installed clear of the ground level by approximately 150mm to provide for adequate protection against constant contact with ground water. This would prevent sheets from getting saturated, which may result in coating adhesion failure. Additionally, the ground clearance would allow for early termite detection.

## PAINTING

Under normal circumstances, **PRIMA** external cladding boards must be coated within 3 months after installation. For best results, decorate **PRIMAplank™** and **PRIMAflex™** with 2 coats of 100% quality water-based acrylic paint. For general purpose applications, there is no requirement for primers or sealers. Use exterior grade coating systems that are compatible with fibre cement cladding products. In all cases, coating manufacturer's recommendations must be strictly adhered to.

For **PRIMAbase™** board, refer to 'FLUSH JOINTING AND TEXTURE COATING SYSTEMS' section on page 18.

## MAINTENANCE

Periodic maintenance of the coating system must be performed as specified by the manufacturer. The jointing and texturing systems are also to be inspected periodically over the life of the building. All joints and sealants must be checked for cracks to prevent the intrusion of water. Make good any defects in accordance with the systems outlined in this manual and the coating manufacturer's recommendations.



## FIXING INSTRUCTIONS

### FRAMING

**PRIMAplank™**, **PRIMAflex™** or **PRIMAbase™** can be applied to timber or steel framing. Framing timber must comply with AS 1684 – Residential Timber-framed Construction. To minimize shrinkage, use only kiln-dried framing timber.

Steel frame must comply with AS 3623 - Domestic Metal Framing. Steel framing must be fabricated from light gauge steel of a minimum 0.55mm to 1.60mm base metal thickness (BMT).

When fixing **PRIMAflex™** and **PRIMAplank™**, stud face width must be at least 38mm.

**PRIMAbase™** must be fixed onto framing with a minimum stud face width as follows:-

- 42mm for timber studs
- 38mm for steel studs

When using narrow studs and on-stud jointing is preferred, stud face width must be increased to provide for adequate nailing (fixing) distance, this can be done by providing trim-packing to the side of the support.

Framing must be constructed with studs at maximum 600mm centres with continuous top and bottom plates. Framing stability must not be dependent on cladding material. Where necessary, provide noggings for framing stability. Refer to table 1 for details of stud spacing specification.

**Table 1: Stud Spacing Specification**

Product	Maximum Stud Spacing
<b>PRIMAplank™</b>	600mm
<b>PRIMAflex™</b>	450mm – 4.5mm sheeting
	600mm – 6.0mm sheeting
<b>PRIMAbase™</b>	600mm



## FASTENERS

### Fixing to Timber Framing

Galvanised Fibre Cement Nails



Nail Size  
(for fixing to softwood)

**PRIMAplank™** 2.8mmØ x 40mm

**PRIMAflex™** 2.8mmØ x 30mm

**PRIMAbase™** 2.8mmØ x 30mm

- Drive nail head flush with board surface.
- For recladding applications, ensure a minimum of 20mm nail penetration to the framing.

### Fixing to Steel Framing

Self-embedding Head Screws (SEH)



Screw Size (for fixing to light gauge steel up to 1.6mm BMT)

**PRIMAplank™** 8 gauge x 32mm

**PRIMAflex™** 8 gauge x 22mm

**PRIMAbase™** 8 gauge x 32mm

- Do NOT use SEH screws with 4.5mm sheets.
- Screws head must be embedded 0.5mm below sheet surface
- Screws must have Class 3 finish.

#### Notes:

1. All nails shall comply with AS 2334: Steel nails – Metric Series or equivalent standards.
2. All screws shall comply with AS 3566: Self-drilling screw – for the building and construction industries.
3. In areas of severe coastal and corrosive environments, consult fastener manufacturers for recommendations.
4. To avoid undulations in finished product, fix individual sheets working from the centre towards the edge.

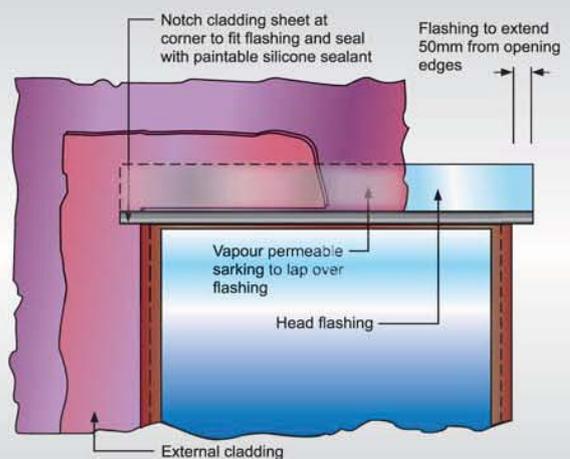
## WINDOW AND DOOR OPENINGS

Where **PRIMA** boards are applied above the windows or doors, head flashing should be installed. Ensure sarking overlaps the head flashing. Flashings should be extended 50mm beyond each side of the opening and boards should be notched around the opening and sealed with paintable silicone sealant that is compatible with cementitious products.

## CORNER FLASHINGS

When cladding with **PRIMAplank™**, **PRIMAflex™** and **PRIMAbase™**, provide metal flashing at internal and external corners. Flashing is not required if foil backed building paper is utilized as sarking.

Figure 3: Head Flashing Detail



## PRODUCT SIZES AND MASS

### PRIMAplank™ Siding



SMOOTH

Surface	:	Smooth
Thickness	:	7.5mm
Width	:	230mm and 300mm
Length	:	4200mm
Mass	:	10.8kg/m <sup>2</sup>



WOODGRAIN

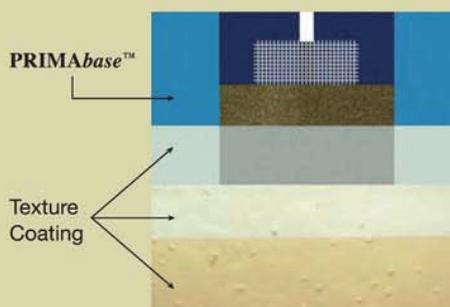
Surface	:	Woodgrain
Thickness	:	7.5mm
Width	:	230mm and 300mm
Length	:	4200mm
Mass	:	10.8kg/m <sup>2</sup>

### PRIMAflex™ Cladding, Eaves and Ceiling Boards



Thickness	:	■ 4.5mm	● 6.0mm	
Mass	:	4.5mm – 6.5kg/m <sup>2</sup> 6.0mm – 8.5kg/m <sup>2</sup>		
Width in mm	:	600	900	1200
Length	:	1800mm	■ ●	■
		2100mm		■
		2400mm	■	■ ●
		2700mm	■	■
		3000mm	■	■

### PRIMAbase™ Substrate for Texture Coating System



Thickness	:	7.5mm		
Mass	:	10.8kg/m <sup>2</sup>		
Width in mm	:	900	1200	
Length	:	2440mm	✓	✓
		2725mm	✓	✓
		3000mm	✓	✓



*Creating the essence of a beautiful home*

## PRIMApLank™ Siding

### PRODUCT DESCRIPTION

PRIMApLank™ is a 7.5mm nominal thickness siding which offers the durability of fibre cement, with the appeal of timber and is available in a smooth surface and a woodgrain pattern.

### FIXING INSTRUCTIONS

#### PLANK FIXING

PRIMApLank™ is a normally fixed horizontally with a minimum of 25mm overlap at each successive plank course. A timber lap gauge may be used to provide consistent laps. When fixing to timber framing, nails must be driven flush with plank face through both plank thicknesses as shown in Figure 4.

When fixing to light gauge steel framing, care should be taken to install screws only through the top plank, above the lap. Fixing through two thicknesses of planking is not recommended. Refer to Figure 5.

Nail or screw PRIMApLank™ to each stud. Fix PRIMApLank™ to the top and bottom plates at 200mm maximum centres. Drive fastener 50mm from PRIMApLank™ end. With pre-drilling, fastener can be driven up to 20mm from the PRIMApLank™ ends. Pre-drilling may not be required if self-drilling screws are used. Refer to Figure 8.

Figure 4: Fixing to Timber

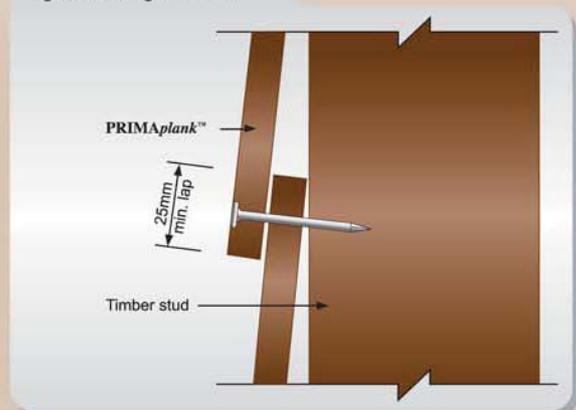
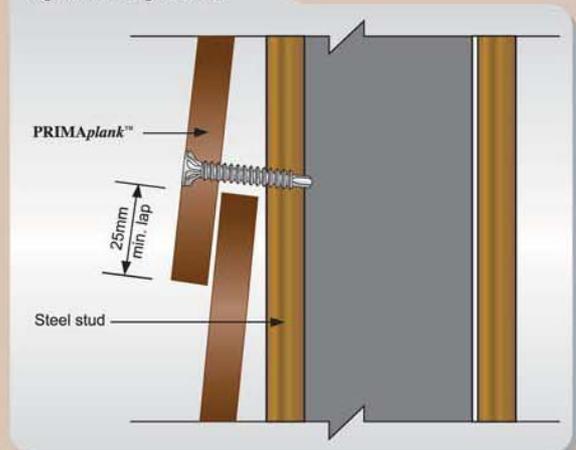


Figure 5: Fixing to Steel



## JOINTING

PRIMAplank™ is normally applied horizontally and fixed with an “off-stud” jointing method using PVC jointer mould. Refer to Figure 6. On-stud jointing can be done by butt jointing plank ends with the provision of 3mm gap as shown in Figure 7. Seal gap with exterior grade paintable sealant.

Figure 6: PVC Mould (Off-Stud Jointing)

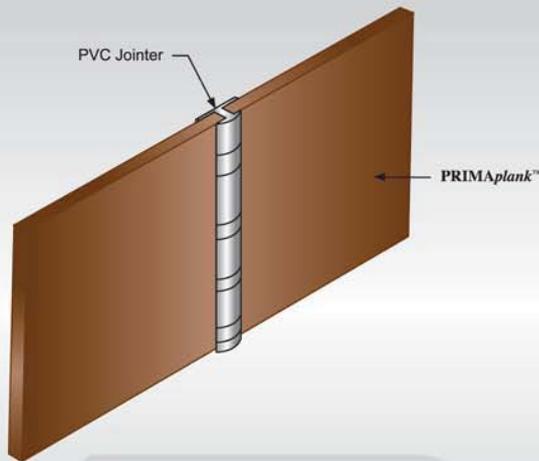


Figure 7: On-stud Jointing

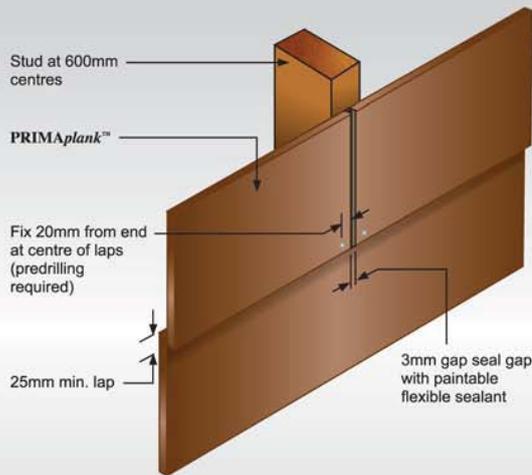
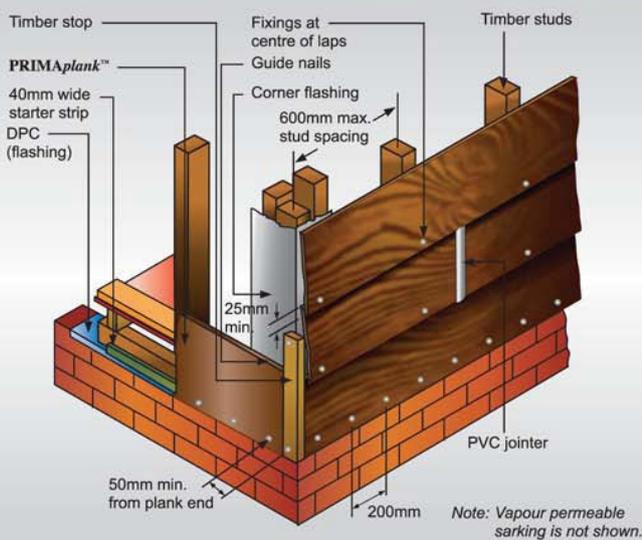


Figure 8: Horizontal Planking



## INSTALLATION PROCEDURE

1. Ensure framing is correctly aligned prior to fixing PRIMAplank™.
2. Fix flashing at all internal / external corner studs and below the bottom plate.
3. Flashing should also be installed at the heads of any openings such as windows or doors.
4. Install a 40mm wide PRIMAplank™ starter strip or treated timber strip along the lower edge of the bottom plate.
5. Use a spirit level to locate the top edge of the first course of the plank and drive a series of guide nails around the perimeter of the timber framework to indicate the top edge of the first course of the planking.
6. Install the first plank commencing from the external corner. Set the top edge of the plank flush against the guide nails and the end abutting the timber corner stop. Drive fasteners to the bottom plate through the plank thickness and the starter strip at 200mm centres maximum. Use 2.8mmØ x 40mm galvanized fibre cement nails.
7. Fix the balance of the planks of the first course around the building. Planks may be joined with PVC joining strips.
8. Remove the guide nails and continue the next course of the plank with an off cut plank. This is done to ensure that the plank joints would be staggered between courses. Nail plank lap at each stud.
9. Check level occasionally.

## WINDOW / DOOR OPENINGS

Figure 9: Head Flashing Detail

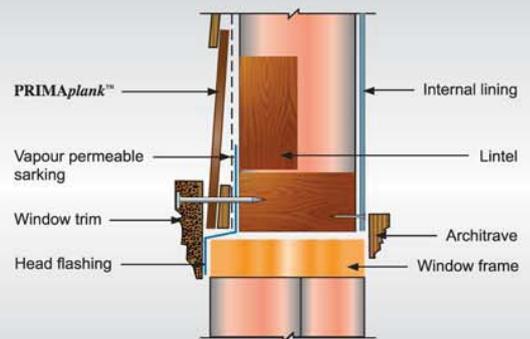


Figure 10: Sill Flashing Detail

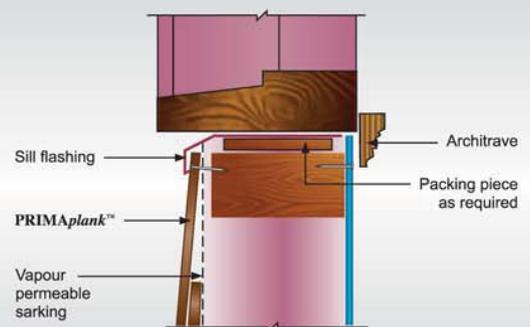
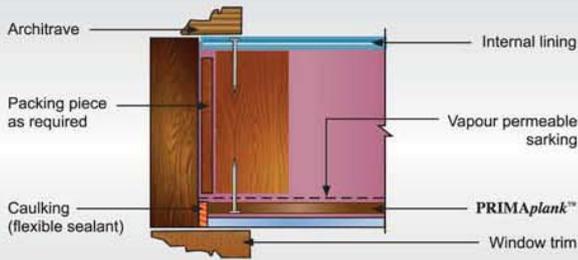


Figure 11: Jamb Sealing Detail



## CORNERS

### INTERNAL CORNERS

Figure 12: Timber Stop

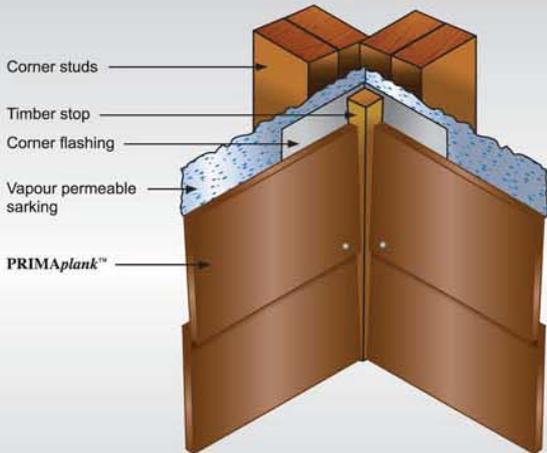
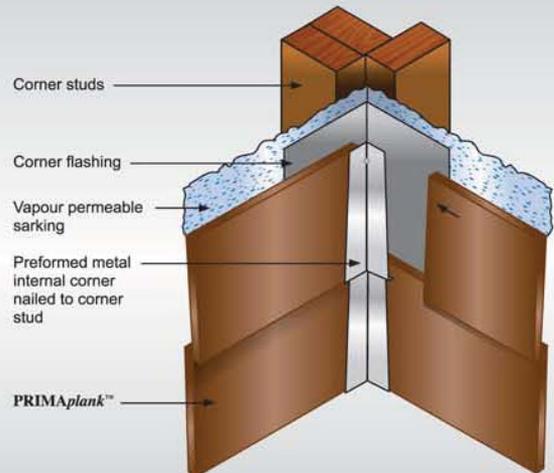


Figure 13: Metal Corner



### EXTERNAL CORNERS

Figure 14: Timber Stop

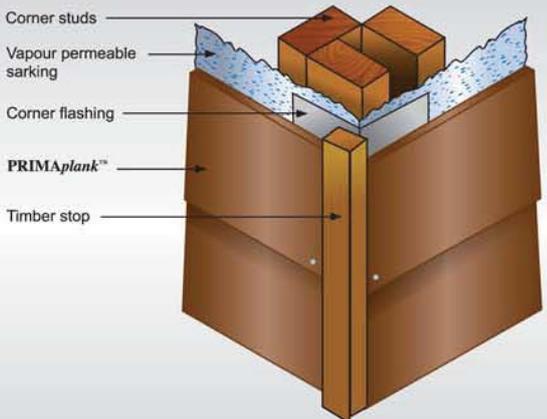
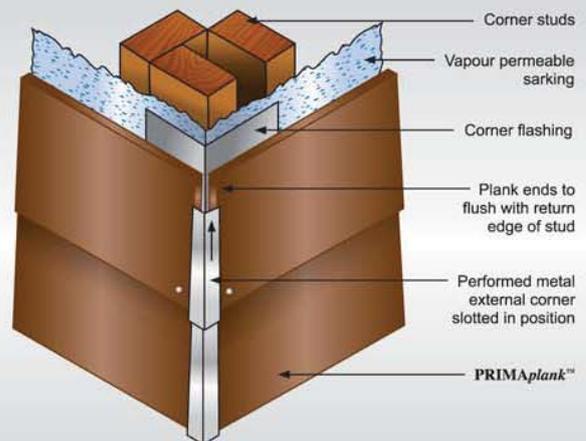


Figure 15: Metal Corner





*A perfect balance between durability and functionality*

## **PRIMAflex™ - Cladding, Eaves and Ceiling Boards**

### **PRODUCT DESCRIPTION**

PRIMAflex™ sheets are manufactured to a nominal 4.5mm and 6.0mm thickness and are suitable for use as eaves and ceiling linings, general purpose cladding and gable ends.

### **FIXING INSTRUCTIONS**

#### **SHEET FIXING**

PRIMAflex™ cladding sheets are normally installed vertically to minimize the number of horizontal sheet joints. Refer to Figure 16. When installed as eaves or ceiling linings, PRIMAflex™ can be laid parallel to or across the joist as shown in Figure 17 and Figure 18.

Fastener fixing distances:-

- 12mm from edge
- 50mm from corner
- 200mm centres at perimeter
- 300mm centre at elsewhere



# PRIMAflex™ Cladding, Eaves and Ceiling Boards

Figure 16: PRIMAflex™ Cladding

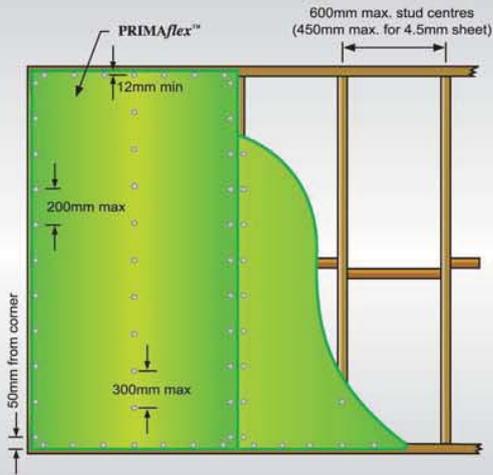


Figure 17: PRIMAflex™ Ceiling Lining

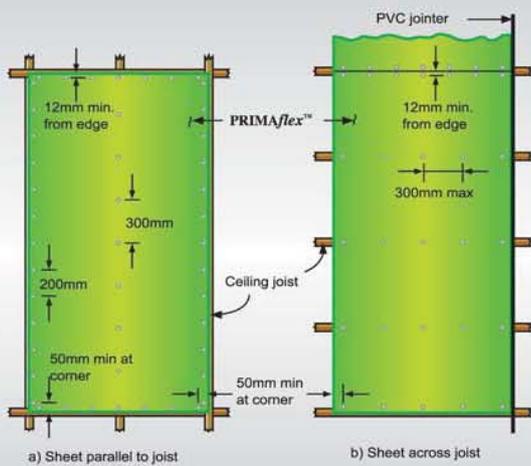
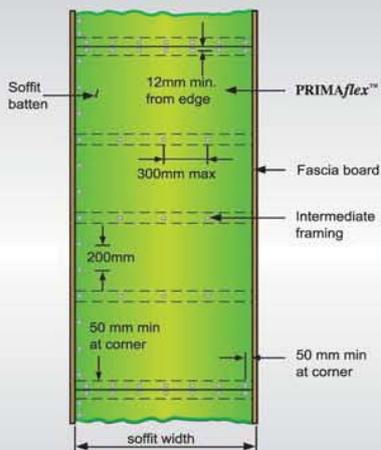


Figure 18: PRIMAflex™ Eaves Lining



## EXTERNAL CLADDING JOINTS

### VERTICAL JOINTS

Alternative vertical jointing systems which include Timber Batten Jointing, PVC Jointing and Flexible Sealant Jointing are illustrated in Figure 19 to Figure 21.

Figure 19: Timber Batten Jointing

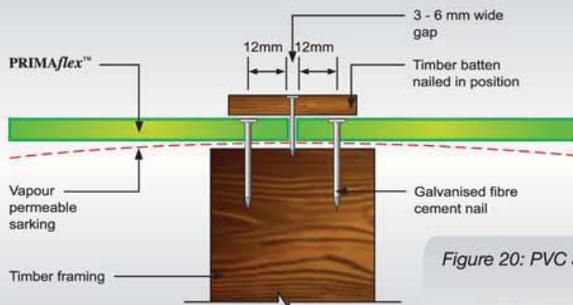


Figure 20: PVC Jointing

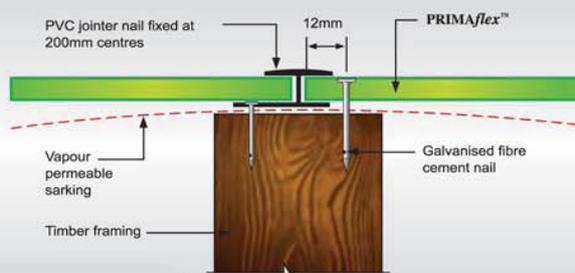
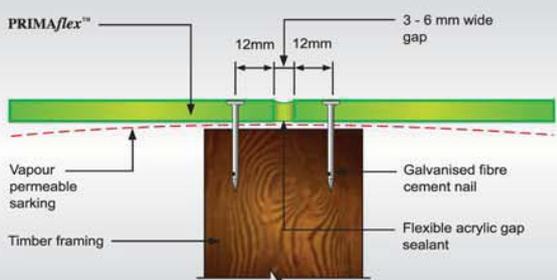


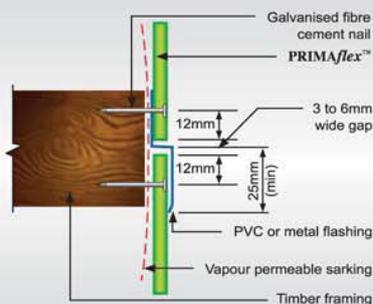
Figure 21: Flexible Sealant Jointing



### HORIZONTAL JOINTS

Horizontal joints are likely to occur when a building wall height is more than one sheet length. Exterior grade PVC or galvanized flashing must be used for all PRIMAflex™ horizontal joints. When the building height is more than one storey high, provide a horizontal control joint along the junction of the floor joist on the upper storey. Similar construction to PRIMAbase™ horizontal movement joints can be adopted. See Figure 34 and Figure 35 on page 16.

Figure 22: PVC Horizontal Joint



## EAVES AND CEILING JOINTS

PRIMAflex™ eaves and ceiling sheets can be butt jointed or alternatively decorated with PVC jointing strips. When butt jointing PRIMAflex™ sheets, ensure sheets join at centre line of ceiling support.

Figure 23: Butt Joint

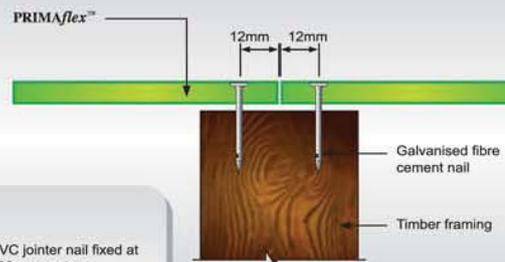
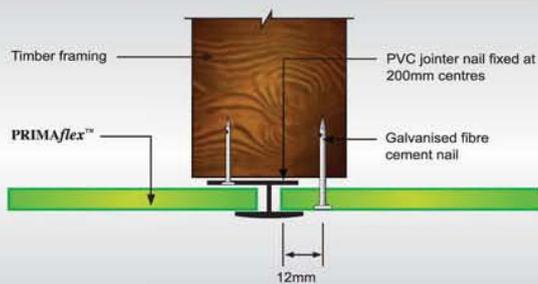


Figure 24: PVC Jointer



## INTERNAL AND EXTERNAL WALL CORNERS

PRIMAflex™ corners may be battened with treated timber or finished with proprietary metal or PVC corner moulds. Timber batten corner details are shown in Figure 25 and Figure 26.

Figure 25: Internal Corner (Timber Batten)

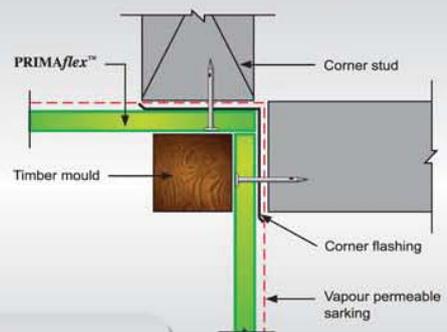
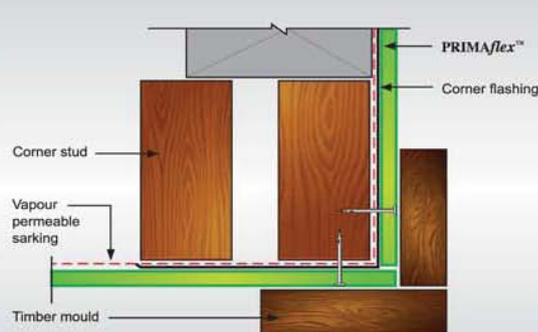


Figure 26: External Corner (Timber Batten)





*Simply together beginning of something beautiful*

## PRIMAbase™ - Texture Coating System

### PRODUCT DESCRIPTION

PRIMAbase™ is a premium quality 7.5mm thick board specifically designed as a substrate for exterior texture coating systems. PRIMAbase™ has 3 rebated edges and one short edge for flush jointing purposes.

### APPLICATIONS

PRIMAbase™ is suitable for residential and commercial buildings of a maximum height of two storeys. Higher structures may require specific designs and therefore greater care must be exercised by the building designer and engineer to ensure the stability of the entire building system to protect sheet fixing and jointing.

### FIXING INSTRUCTIONS

#### SHEET ORIENTATION

PRIMAbase™ sheets can be fixed vertically or horizontally. Generally vertical sheet layout is preferred and horizontal sheet layout is only recommended for cladding not more than 1200mm height.

### FIXING POINTS

Fix nails or screws no closer than 12mm from the edge of the sheet and 50mm from the corner of the sheet. Fix fasteners to all studs, top and bottom plates at 200mm maximum centres. Fasteners fixing should commence from the sheets centre working outward toward the sheet edges.

Figure 27: Vertical Sheeting

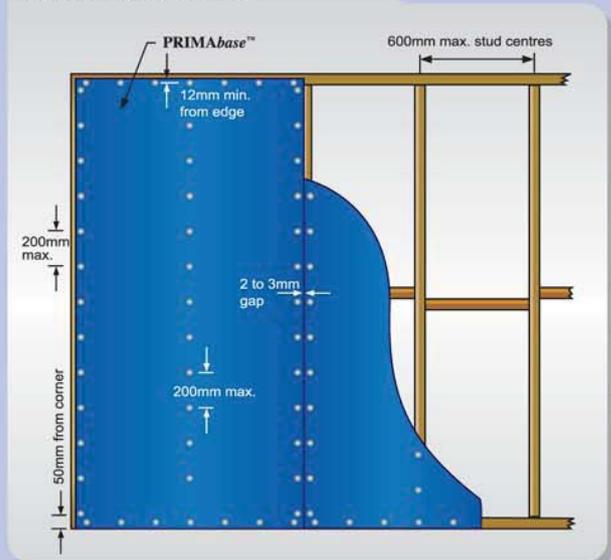


Figure 28: Horizontal Sheeting

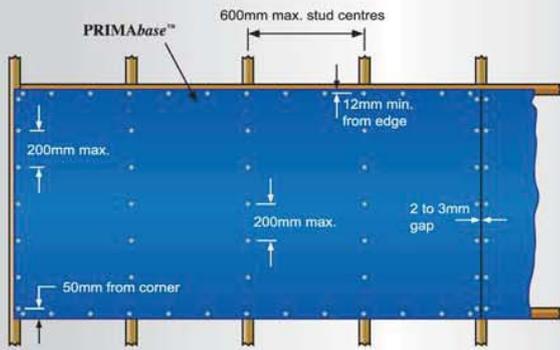
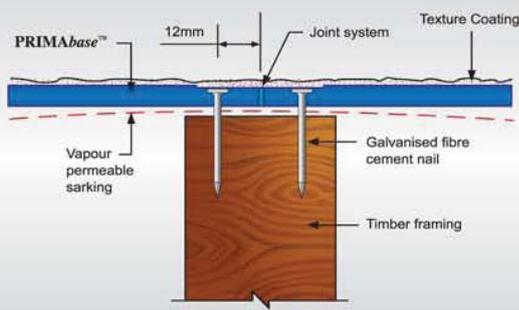


Figure 29: Normal Sheet Joint



## NORMAL JOINT

Ensure that all sheet edges join on the stud centre line. Flush joint must only be performed with rebated edge sheets. Avoid sheet joints over or near window and door corners, as these are points of stress.

## ON-SITE SHEET EDGE REBATING

At times it may be necessary to grind a rebated edge on site. This can be achieved using an electric grinder equipped with an appropriate carborundum / diamond blade. Ensure the sheet edge retains 6.0mm minimum thickness.

## CONTROL JOINTS

Minimal movement of flush jointed sheets is to be taken up by control joints. Control joints should be located at 5.4m centres and formed using sheets with square cut edges. Door and window sides are ideal locations for control joints. Provide an approximately 6mm wide gap between sheets and seal with paintable flexible sealant. Do not apply texture coating on the control joints.

Figure 30: Square Rebated Profile

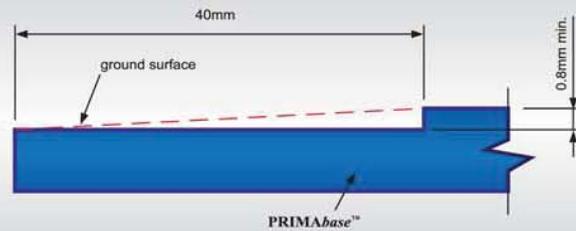


Figure 31: Sheet Layout at Openings and Control Joint Location

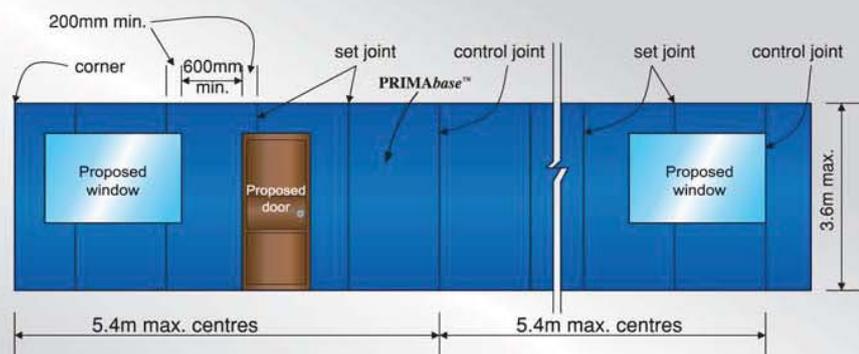
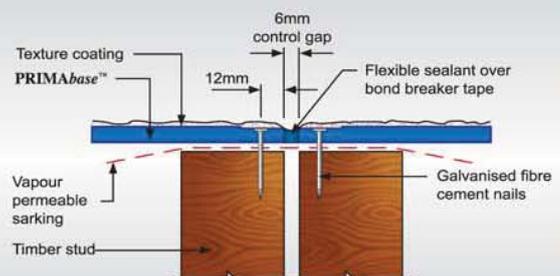


Figure 32: Control Joint Detail



## MOVEMENT JOINTS

### VERTICAL MOVEMENT JOINTS

The application of vertical movement joints is more associated with industrial and commercial constructions. These joints must be provided to cater for structural movement as and when required by the building designer. Use sheets with square cut edges to form these joints. A correctly designed movement joint will incorporate total separation of the top and bottom plates, internal lining and the PRIMAbase™ sheet. See Figure 33.

Figure 33: Vertical Movement Joint Detail

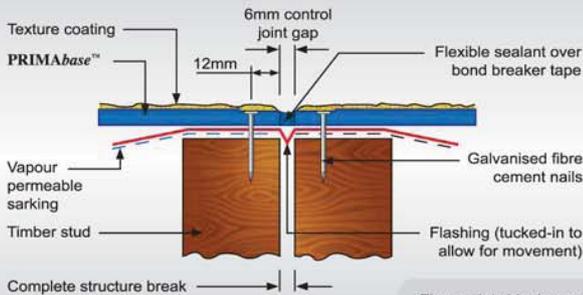


Figure 34: Horizontal Movement Joints (option 1)

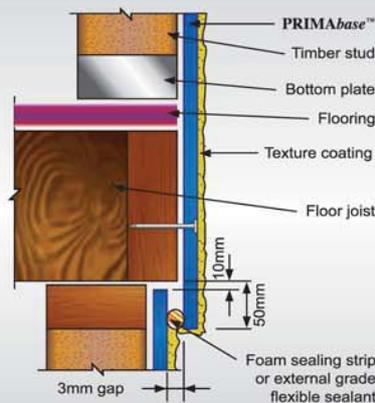
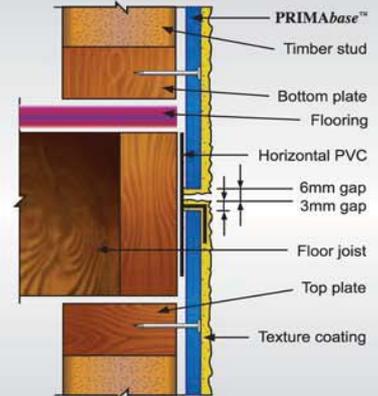


Figure 35: Horizontal Movement Joints (option 2)



### HORIZONTAL MOVEMENT JOINTS

Horizontal movement joints are generally required for two-storey construction, where sheet joints occur at the floor joist line. They must be located at 3.6m maximum centres. Movement joints are particularly important to cater to any framing shrinkage or other structural movement. Alternatives on horizontal movement joints are shown in Figure 34 and Figure 35.

### WALL INTERSECTION MOVEMENT JOINTS

When PRIMAbase™ wall intersects with an existing clad wall or masonry wall, a movement joint must be provided as shown in Figure 36 and Figure 37.

Figure 36: Vertical Movement Joint - Intersection with Clad Wall

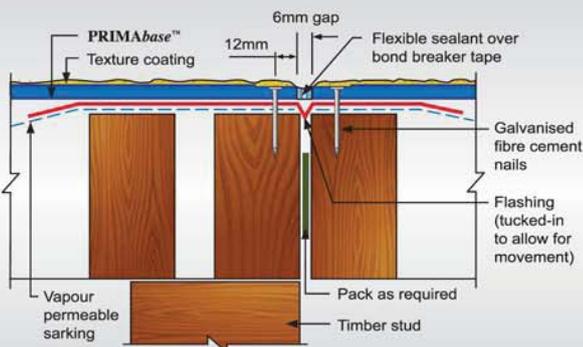
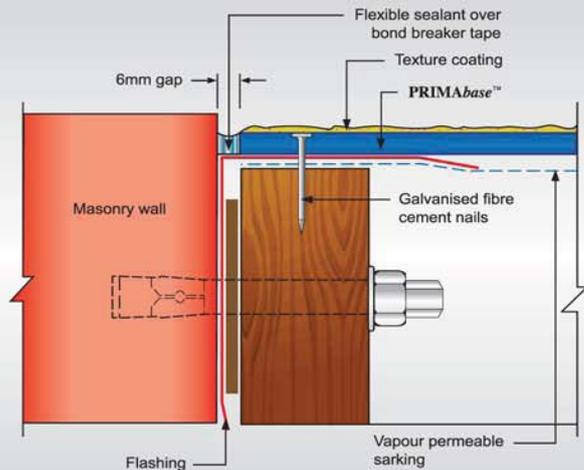


Figure 37: Vertical Movement Joint - Intersection with Masonry Wall



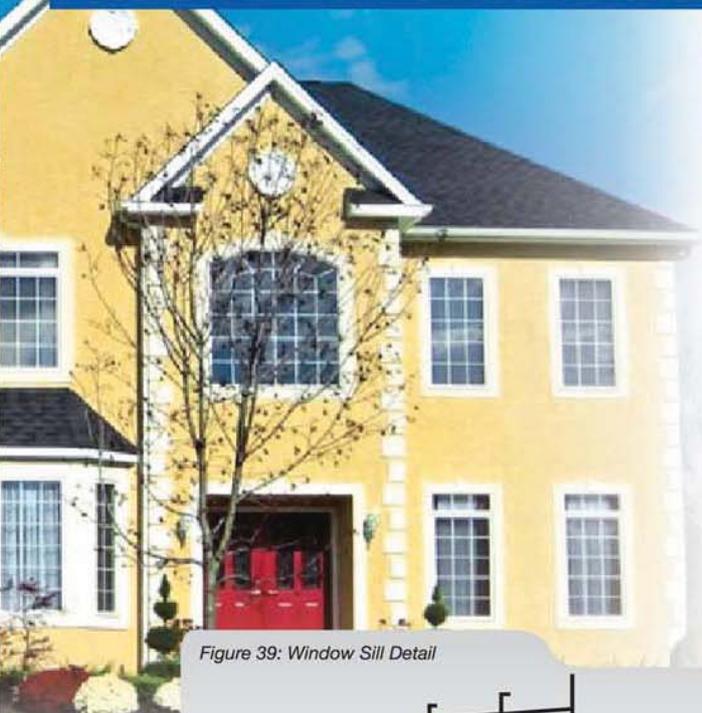
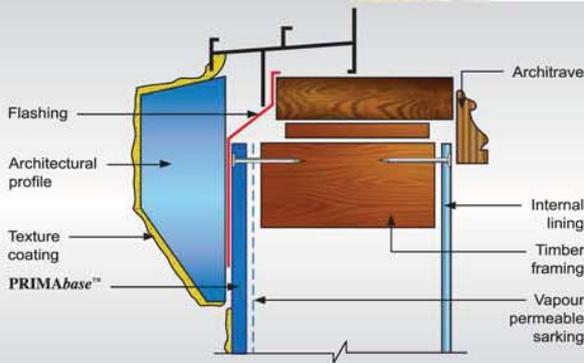


Figure 39: Window Sill Detail



## WINDOW / DOOR OPENINGS

Ensure that flashings are properly installed at the head, jamb and sill of an opening. Typical details at opening are shown in Figure 38 to Figure 40.

Figure 38: Window / Door Head Detail

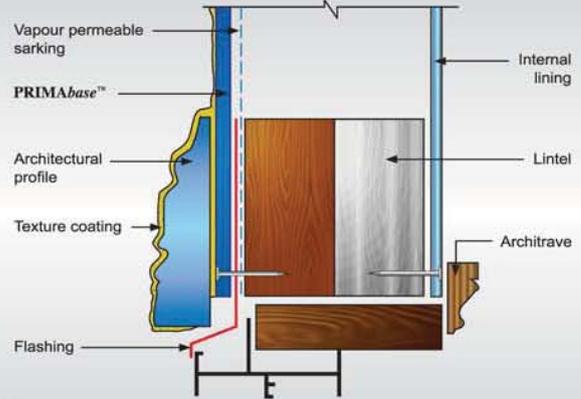
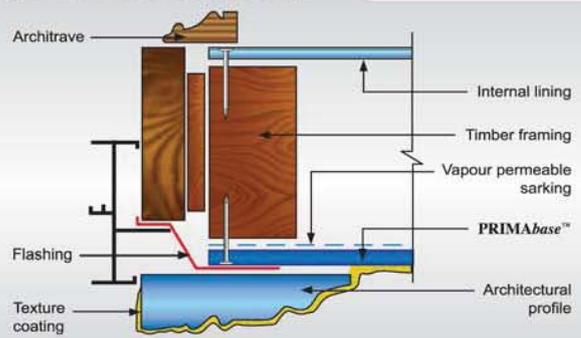


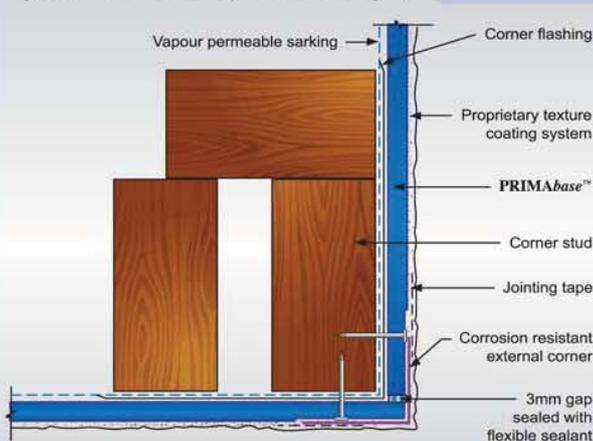
Figure 40: Window / Door Jamb Detail



## CORNERS

PRIMAbase™ internal and external corners can either be formed using square rebated edges or cut edges. A combination of square rebated edge and cut edge is not recommended due to the difficulty when applying texture coating jointing system.

Figure 41: External Corner (PVC or Metal Angles)

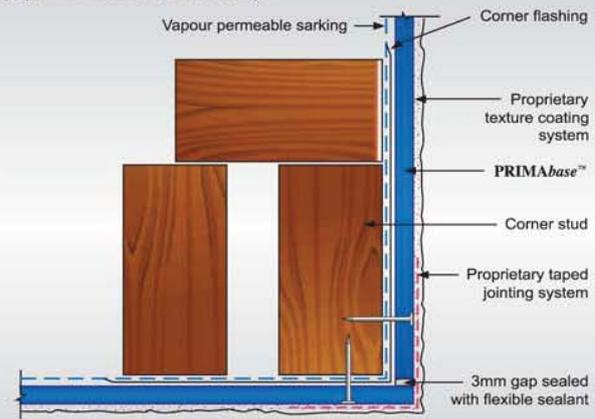


## EXTERNAL CORNERS

External corners are normally finished by using PVC or metal external corner angles. Use only exterior grade and corrosive resistant corner angles. Alternatively, external corners may be finished with a tape-reinforced flexible joint. Refer to Figure 41 and Figure 42.

Ensure that sheet edge is set flush with the sheet face of the other side if the corner. Provide a gap of 2mm – 3mm between adjacent sheets. Seal gap with flexible sealant.

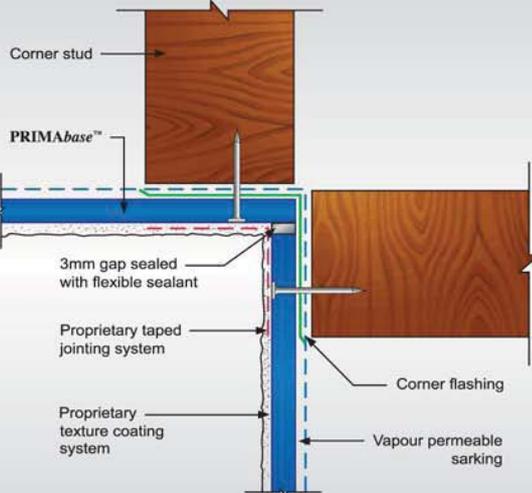
Figure 42: External Corner (Tape Reinforced Flexible Joint)



## INTERNAL CORNERS

Internal corner sheet joints may be set flush using tape reinforced flexible joint. Provide 2mm – 3mm gap at the adjoining sheets and seal gap with flexible sealant prior to flush setting. Refer to Figure 43.

Figure 43: Internal Corner  
(Tape Reinforced Flexible Joint)



## FLUSH JOINTING AND TEXTURE COATING SYSTEMS

PRIMAbase™ should normally receive a sealer coat prior to application of texture coat. The texture coating must be applied to the entire PRIMAbase™ sheet to at least the minimum thickness recommended by the coating manufacturer.

The mesh tape-reinforced joint is to be sufficiently flexible so as not to crack as a result of thermal expansion and contraction. The texture coating should generally be minimum of 3mm thick. Smooth finishes are not suitable.

Where possible avoid using dark colours due to unacceptable heat build-up. In all instances refer to the coating manufacturer's specifications and recommendations.

All jointing and texture coating applications are to be performed by manufacturer approved, reputable applicators.

*Note: Ensure the jointing and coating components are from the same manufacturer and are compatible with each other.*



*Easy installation and neat finishing*

## Working Instructions

### DELIVERY, HANDLING AND STORAGE

- To minimize the possibility of on-site damage, sheets should be delivered just prior to installation.
- Always lift sheets vertically, (on-edge) lengthwise.
- Store sheets neatly on a flat surface supported evenly with bearers spaced at 600mm centres maximum, clear of the ground to avoid damage and moisture ingress.
- Store under cover and ensure sheets are dry prior to fixing. Never install damp sheets. Damp sheets must be allowed to dry to equilibrium moisture content (EMC) before fixing.
- Protect edges and corners from damage on site.

*Note - Floor loadings should be considered when stacking sheets.*

### CUTTING METHODS

A dust mask and safety glasses should always be worn when cutting, drilling or grinding. Dry cutting with power tools should be performed in a well-ventilated area or open-air situation using a power-saw fitted with dust-extracting attachments. A circular saw with dust collecting facilities should have carbide tipped teeth or a carborundum blade.

### SCORING AND SNAPPING

Any scribing tool or special tungsten-tipped scoring knife can be used for this method of cutting, refer to Figure 44.

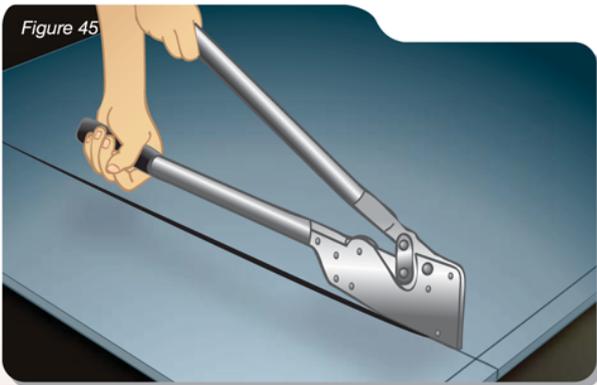
- Score the face of **PRIMA** boards, repeating the action to obtain a depth of about  $\frac{1}{3}$  of sheet thickness.
- Snap the off-cut upward to achieve cut. If the edge is rough, trim with a rasp.



Figure 44

## HAND GUILLOTINE

When using a hand guillotine, best results are obtained when the board and the off-cut are both fully supported, refer to Figure 45.



## NOTCHING

Use hand saw to cut the sides of the notch. Score along back of the notch with scoring knife and snap the waste piece upwards, refer to Figure 46.



## WORKING SAFER WITH PRIMA PRODUCTS

- Always work in a well-ventilated area.
- Dust extraction equipment should be fitted to all power cutting tools.
- Wear safety goggles, conforming to AS 1337.
- Wear protective clothing.

## WARNING

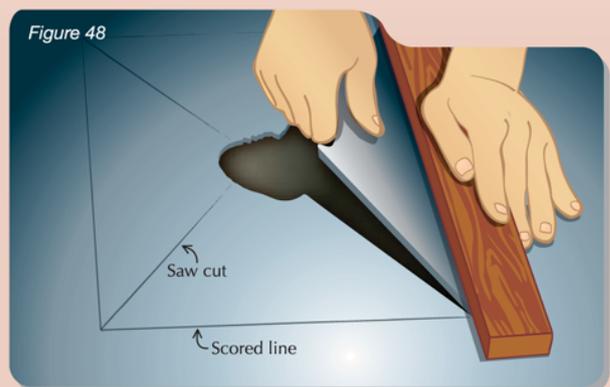
Breathing dust from silica based products such as fibre cement can be hazardous over an extended period of time. Always use a mask, protective equipment and clothing that complies with the latest regulations of Occupational Safety and Health (OSH) or Workplace Health and Safety.

## PENETRATIONS

Round holes may be cut using a power drill with a tungsten tipped hole saw attachment. Alternatively rectangular or circular holes may be formed using a masonry drill to make a series of smaller holes around the perimeter of the proposed opening, and then tap out the waste section carefully, refer to Figure 47.

Larger rectangular holes and openings can be made using the following procedure, refer to Figure 48.

- Score the perimeter of the hole using a scoring knife.
- Drill a larger circular hole at the centre of the proposed opening.
- Use a saw to cut from the centre to the corners of the proposed opening.
- Hold a straight edge or a piece of wood along the scored line and snap the waste piece upwards.





AS/NZS  
2908.2

ASTM  
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Fire Resistance  
AS 1530.3

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#### WARRANTY

Hume Cemboard Industries Sdn Bhd ("the Company") warrants that it will at all times ensure that the products referred to herein ("the Products") shall be supplied by it to the purchaser free of any manufacturing defects and defective materials used in their manufacture. In the event and if contrary to this assertion the Products proved to be defective, whether as a result of manufacturing defects or arising from the Company's use of defective materials, the Company will supply replacement Products. The Company shall however have the option and may choose to reimburse the purchaser the purchase price of the Products instead. The Company shall not be liable for any economic or consequential losses arising from any use of defective Products. This warranty shall be void unless the purchaser has, in its handling and installation of the Products, complied with the recommendations contained in this brochure and other good building practices expected of a reasonable purchaser.

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Successful installations of Hume Cemboard Industries Sdn Bhd's products depend on a large number of factors that are outside of the scope of this brochure. Particular design, detail, construction requirements and workmanship are beyond the control of Hume Cemboard Industries Sdn Bhd. As such, Hume Cemboard Industries Sdn Bhd's warranty does not extend to non-usability of products or damage to products arising from poor or defective designs or systems or poor quality of workmanship in installation of the products.

#### HEALTH AND SAFETY

Breathing in fine silica dust over time, usually a number of years, may cause bronchitis, silicosis and lung cancer. Wear protective clothing, eye protection (conforming to AS1337) and dust mask (P1 & P2).



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