# PRIMAaqua
# Installation Guide

CodeMark™
CM20210

pass

# Contents

NZBN 9429000097253

| PRIMAaqua Cement Panel Product Details | | | |
|---|---|---|---|
| **L x W x Thickness (mm)** | **Weight (kg)** | **IBS Product Code** | **GTIN** |
| 2400 x 1200 x 9 | 36 | PRIMAA092412 | 09421028760447 |
| 2700 x 1200 x 9 | 40.5 | PRIMAA092712 | 09421028760454 |

| **Contact us for more information or to talk to our team.** |
|---|
| www.ibs.co.nz | 0800 367 759 | info@ibs.co.nz |

# 1. Introduction

This document is intended for designers and installers to ensure IBS PRIMAaqua panels are specified and installed correctly.

## 1.1 What is PRIMAaqua?

IBS PRIMAaqua is a wet area lining panel manufactured from cellulose fibre cement, with rebated edges on each length. PRIMAaqua has a smooth, sanded and sealed surface to ensure minimal water and moisture absorption in the exposed surface. Impact resistant and moisture resistant attributes have made PRIMAaqua the ideal choice for internal dry and wet area applications.

## 1.2 Benefits of PRIMAaqua

PRIMAaqua is a high performance cellulose fibre cement sheet manufactured with sand, cement, cellulose fibre and additives. It is one of the most resistant materials there is for your exterior and interior.

**Key attributes and benefits:**

- Durability and long lifetime
- Environmentally friendly materials
- Strength, impact resistance and toughness
- Waterproofing and fireproofing
- Not prone to warping or cracking
- Good acoustic insulation and water resistance
- Good thermal and heat insulation
- Low maintenance

## 1.3 PRIMAaqua Intended Use

IBS supplies PRIMAaqua panels for use as:

- An internal dry wall.
- An internal and external ceiling panel.
- A floor and wall substrate lining (over an existing structural floor) and wall framing for wet areas.
- A flat, even surface that can be covered with ceramic tiles or paint. You can use a water-based, acrylic or epoxy paint system, after the panels have been properly filled. In wet areas, PRIMAaqua can also be used with an approved waterproof membrane

## 1.4 Scope of Use

IBS supply PRIMAaqua for use within the following scope:

- In all buildings where the structure is suitable for the intended building work.
- In all building areas prone to water splashes.
- As a tile substrate over existing or new reconstituted wood floors (e.g. plywood, particle board, OSB and timber tongue and groove).
- As a wet area lining for bathrooms, kitchens, laundries and internal rooms with high humidity.
- In conjunction with an approved firewall design.

## 1.5 Limitations

- When specifying and installing PRIMAaqua make sure you follow the IBS PRIMAaqua Design and Installation Guide.
- PRIMAaqua should not be installed on timber framing where the moisture content is greater than 18%.
- Tiles must be installed with a flexible tile adhesive that's also compatible with PRIMAaqua. Talk to your preferred adhesive manufacturer for recommendations.
- When specifying and installing PRIMAaqua as a flooring substrate, the panels must be fully supported by a rigid flooring material.

## 1.6 Supporting Information for PRIMAaqua

Supporting information for PRIMAaqua.

This document must be read in conjunction with:

- IBS PRIMAaqua pass™
- IBS PRIMAaqua Care and Maintenance Guide
- IBS PRIMAaqua Warranty Guidelines.

# 2. Information for Designers

## 2.1 Skills Required

The designer will need to have knowledge of the product and access to all the PRIMAaqua technical information (see www.ibs.co.nz for details).

## 2.2 Considerations when designing

When specifying PRIMAaqua panels, the designer should consider the following:

- Use of the space in respect to fire, water splash, moisture and/or acoustics
- The supporting structure

## 2.3 Specification Details

When you specify PRIMAaqua panels, make sure you identify the correct panel thickness and fixings. This will depend on the structure, use and method of installation.

## 2.4 Required Documents

When you are applying for a building consent, include the following documents:

- IBS PRIMAaqua pass™
- IBS PRIMAaqua Installation Guide
- IBS PRIMAaqua Care & Maintenance Guide
- IBS PRIMAaqua Warranty

# 3. Information for Installers

## 3.1 Skills Required

PRIMAaqua panels can be installed by a person with the appropriate skills and equipment, who has knowledge of the product and access to the relevant PRIMAaqua technical information (see www.ibs.co.nz for details).

## 3.2 Health and Safety

When installing PRIMAaqua take all steps to ensure your safety and the safety of others:

- Use safety glasses, ear protection, and wear appropriate clothing and footwear.
- Use all tools in accordance with the relevant instruction manuals.
- Do not cut indoors using a circular saw. Use a hand guillotine, fibre cement shears or a score and snap knife.
- Provide dust extraction if working in an enclosed space.

For further information refer to:

- WorkSafe - Absolutely Essential Health and Safety Toolkit
- WorkSafe - Health and Safety at Work, quick reference guide.

## 3.3 Handling and Storage

- Protect the panels from rain when they are transported.
- When they arrive, remove the fixing strips to reduce the stress on the panels. Store the panels flat and on top of timbers to keep them dry.
- To avoid chipping, make sure the edges and corners are protected.

## 3.4 General Installation

Tools you will need:

- Score and snap knife
- Circular saw with a suitable blade and dust extractor
- Hole saw
- Screw gun
- 150mm broad knife
- Hand guillotine & straight edge

Accessories you will need:

- 40 x 2.8mm galvanised / stainless steel fibre cement nails
- Joint reinforcing tape
- Bond breaker tape
- Flexible polyester filler

# 4. Installing the panels

## 4.1  Framing

For new buildings, PRIMAaqua can be fixed to timber framing, light gauge steel frames or battens fixed over masonry.

On untiled walls the stud spacings must not exceed 600mm horizontal centres and 1200mm for nogs or dwangs. On tiled walls, stud spacings must be between 400-600mm depending on weight of the tiles.

Sheet joints must be centralised on a stud. For floor and ceiling junctions, ensure you provide a 6mm building tolerance gap.

## 4.2  Steel Framing

For steel stud framing, the minimum size should be at least 64mm deep, 35mm wide and 0.55mm thick.

## 4.3  Masonry Substrate

Ensure the masonry substrate has sufficient time to dry out before you install PRIMAaqua panels. The surface of the masonry must also be clean and smooth so that it does not affect the batten alignment.

Make sure you install a damp proof course between the masonry and the battens.

## 4.4  Frame Tolerances

Before you install the panel ensure all framing is square, straight and true.

## 4.5  Layout

- You can install PRIMAaqua panels both vertically and horizontally on the framing.
- Any sheet joints should meet at the centre of framing member that will support it.
- Ensure that sheet joints don't cover the edges of any door or window openings. The sheet joint must be at least 200mm away from the edge.
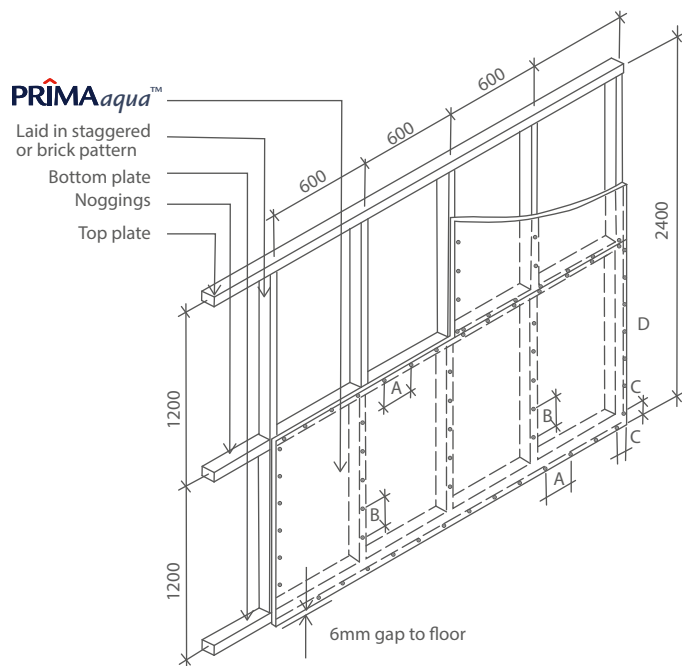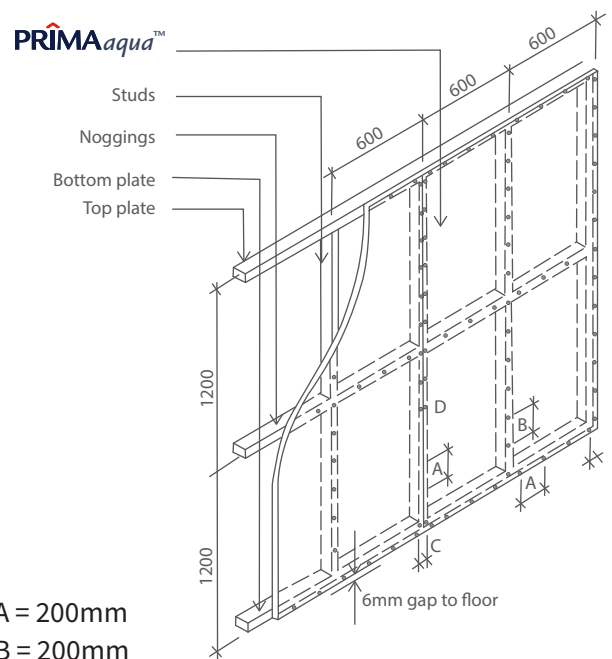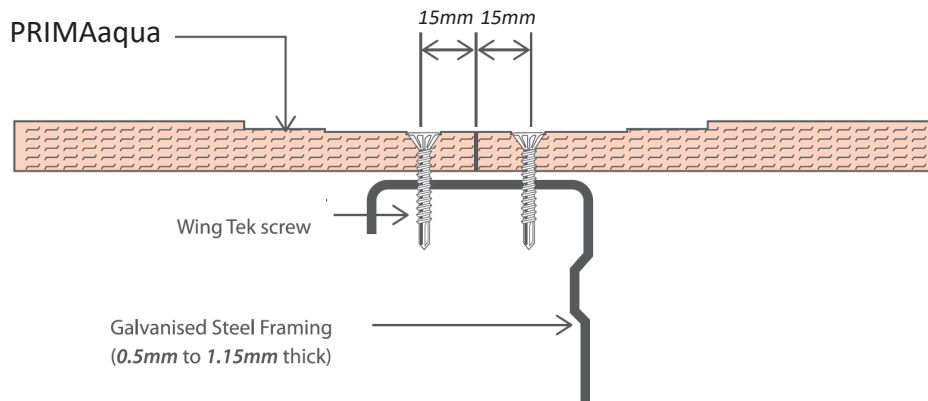
**Figure 1: Horizontal sheet fixing**

A = 200mm
B = 200mm
C = 15mm

**Figure 2: Vertical sheet fixing**
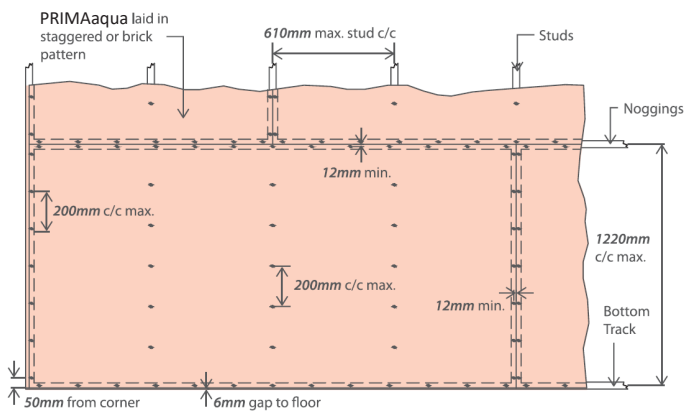
**IMPORTANT TO NOTE**

- For vertical installation use panels with two long rebated edges.
- If the space above a window or door is less than 250mm, you must install a control joint on either side of the opening.
- Joints can be staggered, but all panel edges must be supported by the framing.
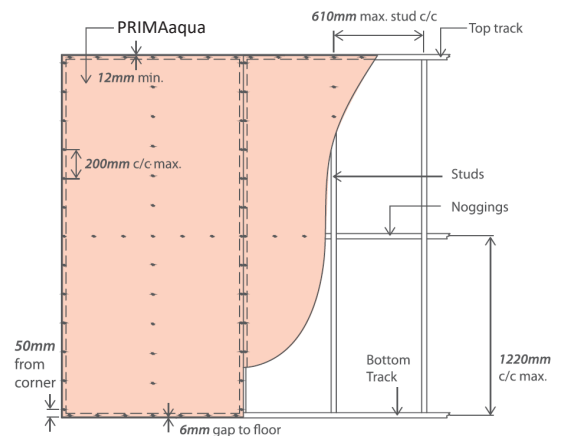
## 4.6 Fixing Details



PRIMAaqua

15mm  15mm

Wing Tek screw

Galvanised Steel Framing
(**0.5mm** to **1.15mm** thick)

**Fastener Fixing Detail Figure**

## 4.7 Flush Joint Wall Applications



PRIMAaqua laid in staggered or brick pattern

610mm max. stud c/c

Studs

Noggings

12mm min.

200mm c/c max.

200mm c/c max.

12mm min.

1220mm c/c max.

Bottom Track

50mm from corner

6mm gap to floor

**Figure L1 - Horizontal Sheet Fixing**



PRIMAaqua

610mm max. stud c/c

Top track

12mm min.

200mm c/c max.

Studs

Noggings

50mm from corner

6mm gap to floor

Bottom Track

1220mm c/c max.

**Figure L2 - Vertical Sheet Fixing**

PRIMAaqua sheets must be fixed horizontally (L1) or vertically (L2), ensuring the vertical sheet joint on one side of the stud does not coincide with the vertical sheet joint on the other side to further enhance the stability of the wall.

PRIMAaqua sheets must be fixed with a clearance gap of 6mm from ground floor surface. Figure L1 & L2 are typical configurations for standard wall height up to 3m.

PRIMAaqua

3. Topping Coat:
   Jointing Compound PLUS+
   layered onto beddig coat,
   spread and flatten with a
   scrapper to approximately 4"
   wide (feathered out beyond
   the previous application)

4. Finishing Coat:
   Final layer of jointing
   compound to be applied,
   feathered out beyond the
   previous application. Surface to
   be sanded to achieve smooth
   surface prior to wall finishing

1. Bedding Coat:
   Compound PLUS+ to infill gap,
   approximately 60mm wide

2. Mesh Tap 120m embedded into
   bedding coat

5. Wall Finishing:
   Paint with water based Acrylic paint

## 4.8  Cutting and Penetrating the Panels

PRIMAaqua panels can be cut with common power tools such as a circular saw equipped with a diamond-tipped cutting blade. This must only be done in a well-ventilated area. Do not wet the sheet or the saw blade during cutting process. We also recommend using power tools with dust-extracting attachments.

A dust mask and safety goggles must always be worn when cutting, drilling or grinding the sheet.
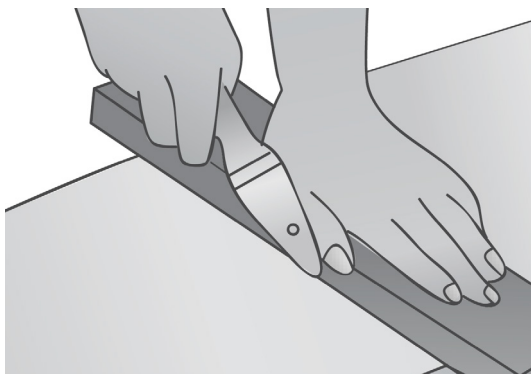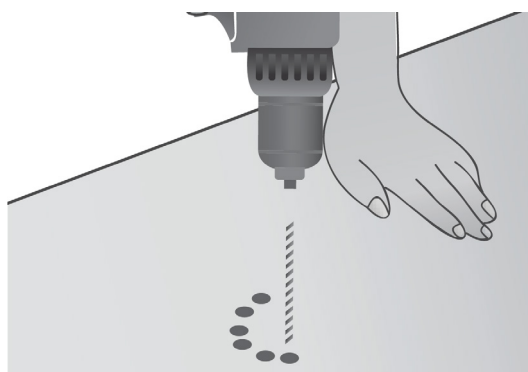


**Score and snap method**
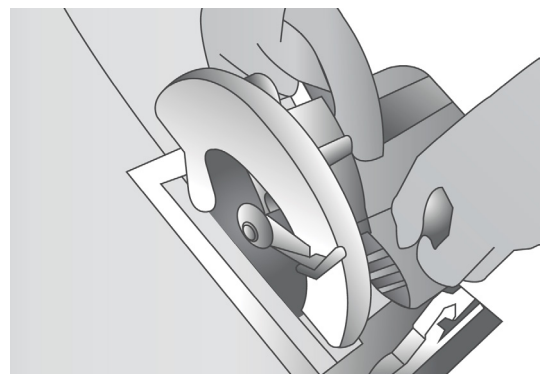


**Machine cut**

You can use a hole saw or form round holes by drilling a series of smaller holes around the perimeter of the new opening. Then carefully tap out the waste piece. Trim the rough edges with rasp if required. Use suitable high-speed heavy duty drill bit. Cut rectangular or square openings using a circular saw.
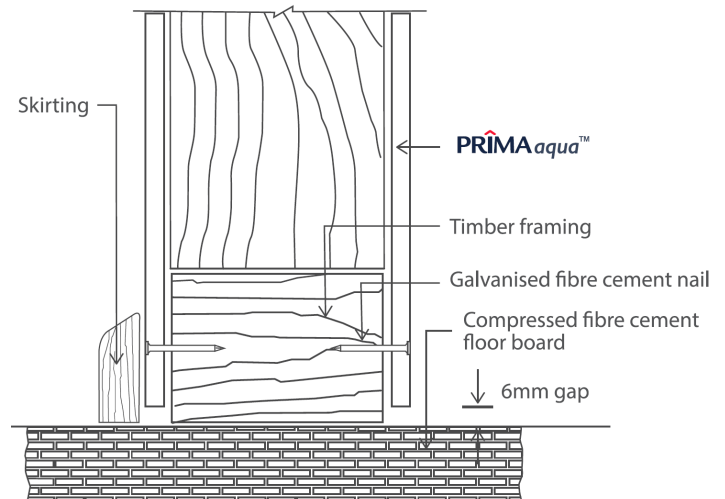


**Notching and penetration**

# 5. Fixings

## 5.1  Recommended Fixing

For timber frames: use 6g x 30mm screws or 40 x 2.8mm nails to fasten the panels. Nails must be finished flush with the panel. Screws can be driven up to 0.5mm below the surface of the panel. For 0.55-1.0mm steel frames use 30mm Buildex FibreZip collated screws.

The screws must be driven in as closely as possible to the corners of the steel stud. This will prevent the screws hitting the flange.

Space 6mm packers along the floor to temporarily support each panel. Once you are sure the panel is level, begin fixing it to the frame. Start from the centre of the panel and move outwards to the edge. At every vertical, horizontal and corner joint, make sure you leave a 1-2mm gap between each panel.
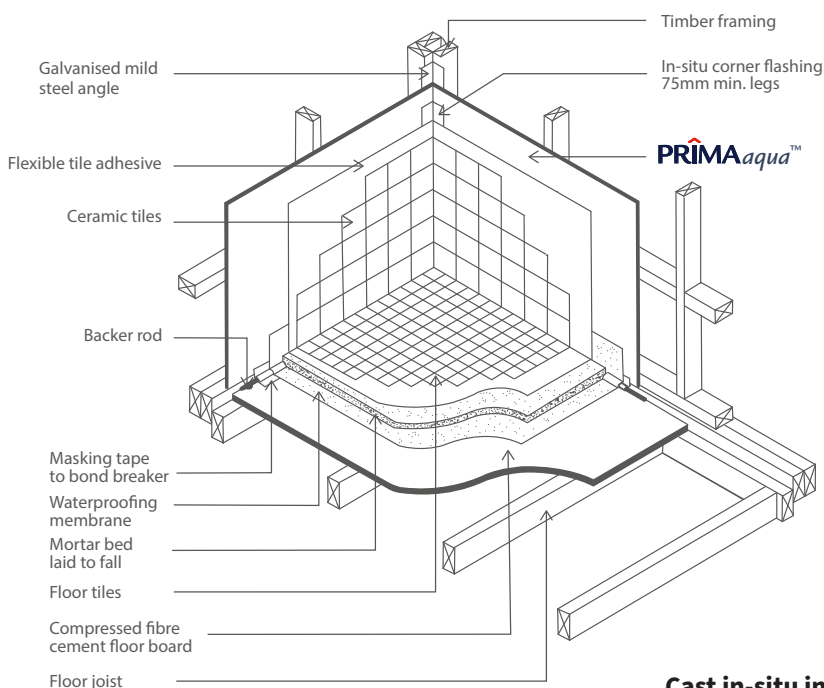
Skirting

PRIMAaqua™

Timber framing

Galvanised fibre cement nail

Compressed fibre cement floor board

6mm gap

**Typical section at wall to floor**

## 5.2  Fixing for Untiled Walls

If you are leaving the panels untiled, you can fix them with fasteners (screws or nails) or a combination of fasteners and adhesive.

## 5.3  Fixing for Tiled Walls

If the panels will be finished with tiles, you must fix them with fasteners only. The stud spacings should be between 400mm and 600mm.

Galvanised mild steel angle

Flexible tile adhesive

Ceramic tiles

Backer rod

Masking tape to bond breaker

Waterproofing membrane

Mortar bed laid to fall

Floor tiles

Compressed fibre cement floor board

Floor joist

Timber framing

In-situ corner flashing 75mm min. legs

PRIMAaqua™

**Cast in-situ internal membrane**

### IMPORTANT TO NOTE

PRIMAaqua panels should be installed horizontally on walls if they are going to be finished with tiles. If you do install the panels horizontally, they will need full perimeter support and fixings.

If you are tiling in wet areas, install a suitable waterproof membrane first. Ensure you follow the membrane manufacturer's instructions.

The rebated edges of each panel must be stopped with a base coat of interior grade, flexible polyester filler. A topcoat is not required.

### 5.4  Fixing to Ceilings

Stagger the installation of the panels in a bricklaying pattern.

All panel edges must be supported and fixed with a maximum of 200mm between fixing centres around the perimeter and 300mm centres through the body of the sheet.

Leave a 1-2mm gap between each panel. Framing centres must be a maximum of 600mm.

### 5.5  Panel Joints

All panel joints must be reinforced and filled using an approved interior grade flexible (polyester) filler.
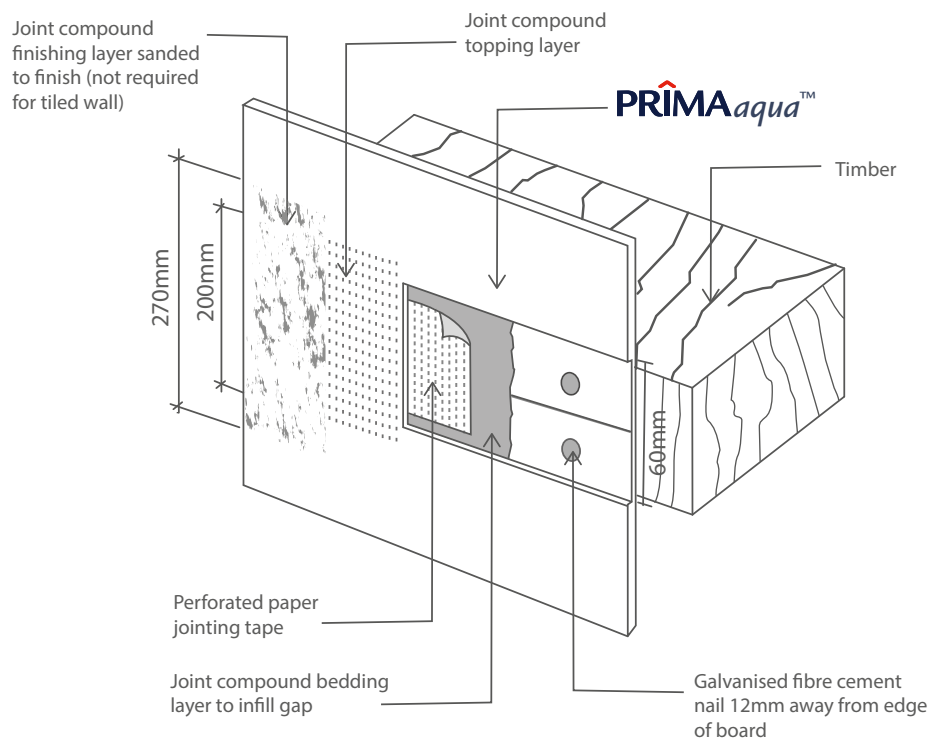


# 6. Finishing

### 6.1  Painting

PRIMAaqua panels can be painted with a variety of water-based, acrylic or epoxy paint systems.

Before you begin painting, ensure all the panel joints are reinforced and the fixing holes are filled using an approved interior grade flexible (polyester) filler.

Once the joints are dry, sand level and remove any dirt or dust from the panel surfaces.
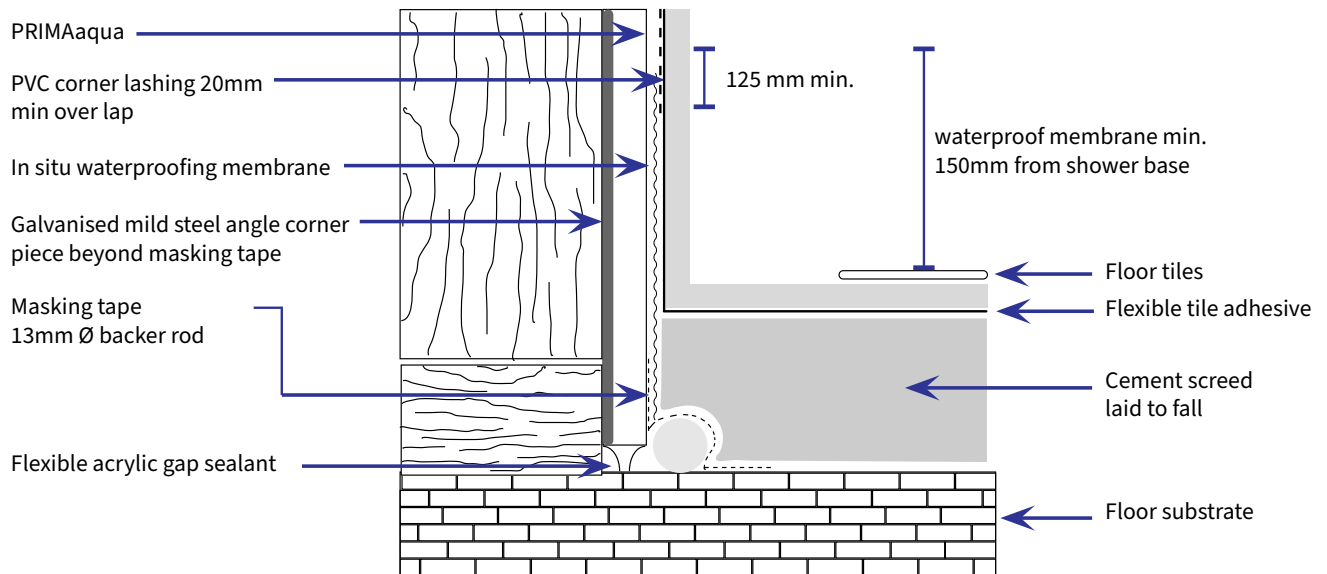
To clean or maintain the finish, follow any instructions from the paint manufacturer.
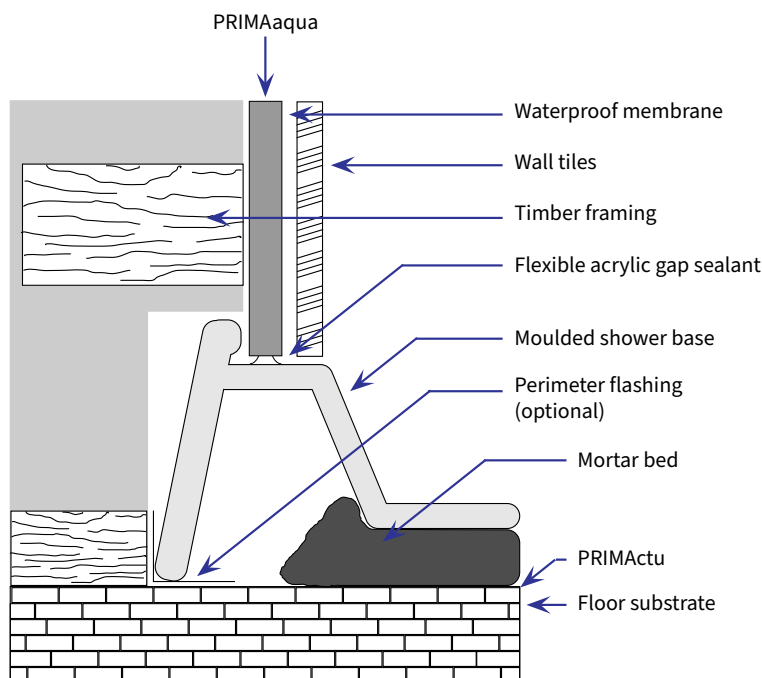
## 6.2  Tiling

Before you begin tiling, ensure all the panel joints are reinforced and the fixing holes are filled using an approved interior grade flexible (polyester) filler.

Once the joints are dry remove any dirt, grease or dust from the panel surfaces.
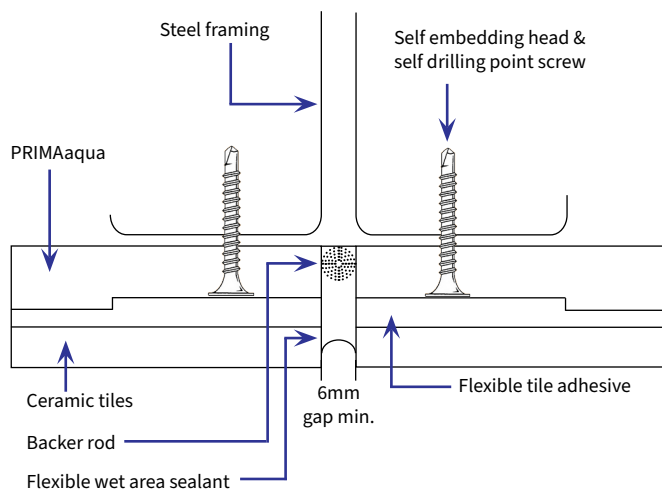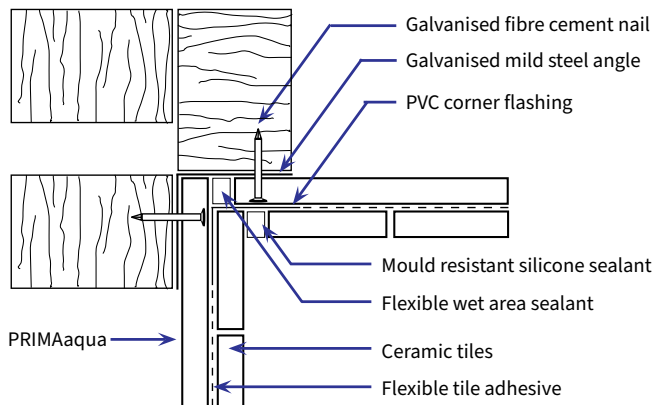
We would also recommend reading the BRANZ 'Good Tiling Practice' guide to familiarise yourself with the correct techniques for preparing and installing tiles.

PRIMAaqua

PVC corner lashing 20mm min over lap

In situ waterproofing membrane

Galvanised mild steel angle corner piece beyond masking tape

Masking tape
13mm Ø backer rod

Flexible acrylic gap sealant

125 mm min.

waterproof membrane min. 150mm from shower base

Floor tiles

Flexible tile adhesive

Cement screed laid to fall

Floor substrate

**Typical floor / wall cross-section for cast in-situ internal membrane**

PRIMAaqua

Waterproof membrane

Wall tiles

Timber framing

Flexible acrylic gap sealant

Moulded shower base

Perimeter flashing (optional)

Mortar bed

PRIMActu

Floor substrate

**Typical detail at shower recess**

**Detail at tiled expansion joint**



**Vertical corner joint detail**

Use a flexible tile adhesive to fix the tiles. Talk to your preferred supplier for recommendations. You must install control joints to accommodate any thermal expansion or stresses that affect the building.

## 7. Certifications Held By PRIMAaqua

- ISO 9001: 2008 Quality System (Ref-AR0430-IQNet Certification)
- ISO 14001: 2004 Environmental System (Ref-ER0642-IQNet Certification)
- BRANZ appraisal N:737 (2011)

## 8. Fire Testing

The fibre cement board product used as PRIMAaqua has been fire tested in July 2017. The test was carried out to determine the gross heat of combustion (calorific value) of products at constant volume in a bomb calorimeter according to the test specified in BS EN ISO 1716 : 2010 "Reaction to fire test for products - Determination of the gross heat of combustion".

The test specimens were prepared then conditioned for a minimum of 48 hours at a temperature of (23 +/-2) °C and relative humidity of (50 +/- 5)% until constant mass is achieved as according to clause 7.6.

The equipment was calibrated according to the method described in clause 8.2 and specimens tested according to clause 8.3 of the standard. A minimum of three tests were conducted for each material type in order for the material to be evaluated.

The product in relation to its reaction to fire behaviour meet the requirements to be classified as A1.

Therefore, the classification of the product material in accordance with BS EN 13501-1 2007 +A1:2009 is A1.

## 9. Supporting Documents

For more information and documents on PRIMAaqua, visit www.ibs.co.nz.

Supporting documents:

- IBS PRIMAaqua pass™ (Product Assurance Supplier Statement)
- IBS PRIMAaqua Care & Maintenance
- IBS PRIMAaqua Home Builder Info Sheet
- IBS PRIMAaqua Warranty

Scan the QR code to view all PRIMAaqua documents.

# IBS
## SUSTAINABLE BUILDING PRODUCTS

1/7 Fraser Road, Panmure, Auckland, New Zealand
0800 367 759 | info@ibs.co.nz
www.ibs.co.nz