

# PRÎMACTU™ TILE UNDERLAY

## IBS DESIGN & INSTALLATION GUIDE



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1/7 Fraser Road, Panmure  
Auckland | P: 0800 367 759

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## 1 PURPOSE OF DOCUMENT

### 1.1 GENERAL

This document is intended for designers and installers to ensure IBS **PRIMA CTU™** panels are specified and installed correctly.

## 2 WHAT IS PRIMA CTU™?

**PRIMA CTU™** is a cellulose fibre cement floor and wall panel. Each panel has a smooth, sanded face which is sealed and ready for tiling.

### 2.1 DESCRIPTION AND USE

IBS supply **PRIMA CTU™** panels for use as:

- An internal floor and wall substrate for use in wet areas.
- A flat, even surface that can be covered with ceramic, mosaic or natural stone tiles.

### 2.2 AVAILABLE PANEL SIZES

- Length (mm): 1800
- Thickness (mm): 6.0
- Widths (mm): 600, 900 & 1200

### 2.3 SCOPE OF USE

IBS supply **PRIMA CTU™** for use within the following scope:

- In all buildings where the structure is suitable for the intended building work.
- As a tile substrate over existing or new reconstituted wood floors (e.g. plywood, particle board and Orientated Strand Board (OSB) and tongue and groove timber.
- As a wet area lining for bathrooms, kitchens, laundries and internal rooms with high humidity.

### 2.4 LIMITATIONS

- When you are specifying and installing **PRIMA CTU™** the IBS **PRIMA CTU™** Design and Installation Guide must be followed.
- **PRIMA CTU™** 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 **PRIMA CTU™**. Talk to your preferred adhesive manufacturer for recommendations.
- When used as a wall lining ensure stud centres do not exceed 400mm. In high impact areas **PRIMA CTU™** 6mm may not be suitable.

## 3 INFORMATION FOR DESIGNERS

### 3.1 SKILLS REQUIRED

The designer will need to have knowledge of the product and access to all the **PRIMA CTU™** technical information (see [www.ibs.co.nz](http://www.ibs.co.nz) for details).

### 3.2 CONSIDERATIONS WHEN DESIGNING

When specifying **PRIMA CTU™** panels, the designer should consider the following:

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

### 3.3 SPECIFICATION DETAILS

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

### 3.4 REQUIRED DOCUMENTS

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

- › **IBS PRIMA CTU™ pass™ (Product Assurance Supplier Statement)**
- › **IBS PRIMA CTU™ Design & Installation Guide**
- › **IBS PRIMA CTU™ Care & Maintenance**
- › **IBS PRIMA CTU™ Warranty**

## 4 INFORMATION FOR INSTALLERS

### 4.1 SKILLS REQUIRED

**PRIMA CTU™** panels can be installed by a person with the appropriate skills and equipment, who has knowledge of the product and access to the relevant **PRIMA CTU™** technical information (see [www.ibs.co.nz](http://www.ibs.co.nz) for details).

### 4.2 HEALTH AND SAFETY

When installing **PRIMA CTU™** 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:

- › **The Absolutely Essential Health and Safety Toolkit**
- › **Worksafe New Zealand Quick Guide**

#### 4.3 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 above ground. Cover if outside.

To avoid chipping, make sure the edges and corners are protected.

#### 4.4 GENERAL INSTALLATION

##### Tools you will need:

- › Score and snap knife
- › Circular saw with a dust extractor
- › Hole saw
- › Screw gun
- › 150mm broad knife
- › Hand guillotine
- › Straight edge

##### Accessories you will need:

- › 25 x 2.5mm annular grooved T & S or stainless steel fibre cement nails
- › Joint reinforcing tape (GIB RocTape)
- › Bond breaker tape (eg Holdfast Gator)

##### 4.4.1 INSTALLING THE PANELS - FRAMING

For wall framing in new buildings **PRIMA<sup>®</sup>CTU™** 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. On tiled walls stud spacings must not be more than 400mm. Sheet joints must be centralised on a stud.

For floor and ceiling junctions, ensure you provide a 6mm building tolerance gap. If you are installing the panels as a floor, ensure they are fully supported by the structure below.

Where you are installing **PRIMA<sup>®</sup>CTU™** over a new or existing flooring substrate, the floor support must be stiff enough to resist deflection

##### 4.4.2 STEEL FRAMING

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

##### 4.4.3 MASONRY SUBSTRATE

Ensure the masonry substrate has sufficient time to dry out before you install **PRIMA<sup>®</sup>CTU™** panels. The surface of the masonry must also be clean and smooth so that it does not affect the batten alignment.

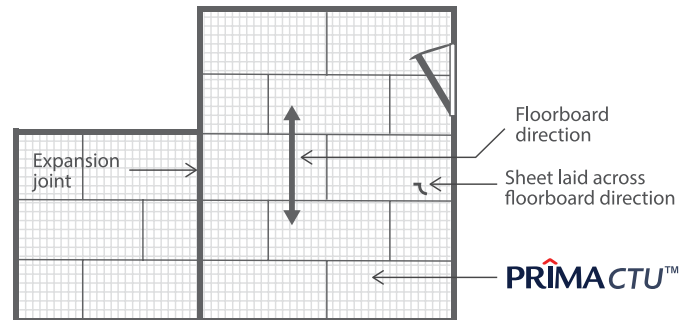
Make sure you install a damp proof course between the masonry and the battens.

##### 4.4.4 FRAME TOLERANCES

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

#### 4.4.5 INSTALLING THE PANELS - LAYOUT

- You can install **PRIMACTU™** panels both vertically and horizontally on wall 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.
- For floor applications, stagger the sheets (brick bond pattern) over the flooring substrate. Ensure the floor support is stiff enough to resist deflection.

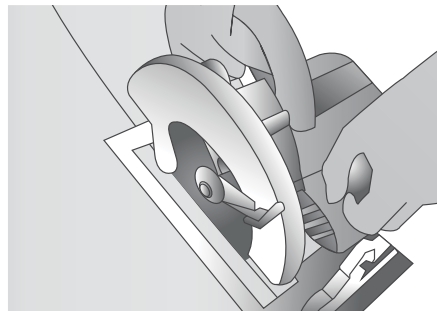
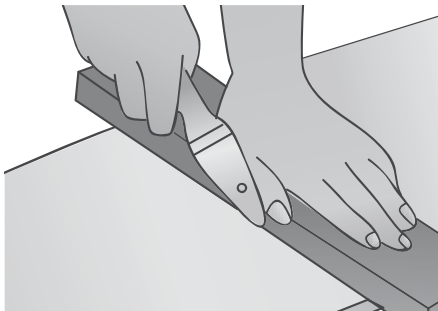


**IMPORTANT TO NOTE:** If the space above a window or door is less than 250mm, you must install a control joint on either side of the opening. Joints can be staggered, but all panel edges must be supported by the framing. Where **PRIMACTU™** is used with ceramic tiles or a porous floor covering in areas prone to water splash, a waterproof membrane must be installed.

#### 4.4.6 CUTTING AND PENETRATING THE PANELS

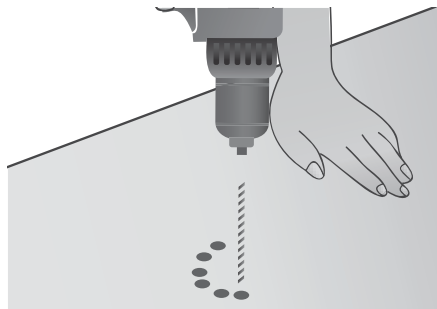
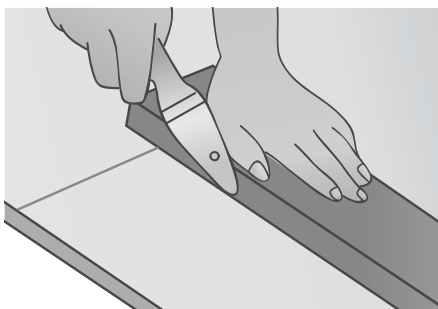
**PRIMACTU™** panels can be cut with common power tools such as a circular saw equipped with a diamond-tipped cutting blade. This must only be done in a well-ventilated area. Do not wet the sheet or the saw blade during cutting process. We also recommend using power tools with dust-extracting attachments.

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



**Score and Snap Method (left),  
Machine Cut (right)**

You can 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 (above)**



## 5 INSTALLING THE PANELS - FIXING

### 5.1 RECOMMENDED FIXINGS

For timber frames: use 6g x 30mm screws or 25 x 2.5mm annular grooved T & S nails to fasten the panels.

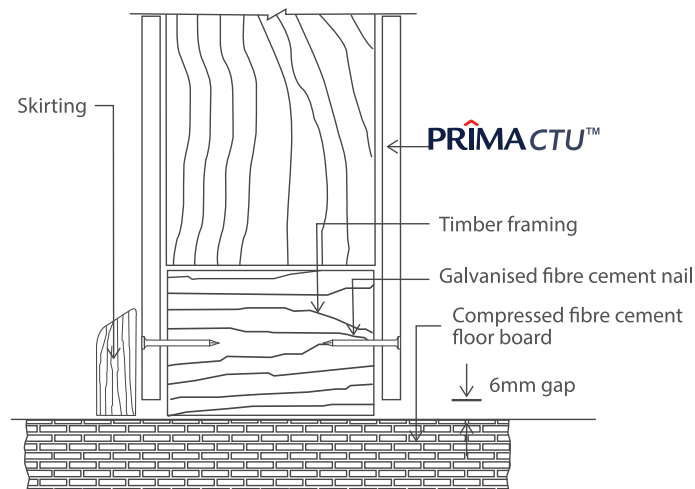
Nails must be finished flush with the panel. Screws can be driven up to 0.5mm below the surface of the panel.

For steel framing, 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 PRIMACTU™ 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.



**Typical section at wall to floor**

### 5.2 FIXING FOR TILED WALLS

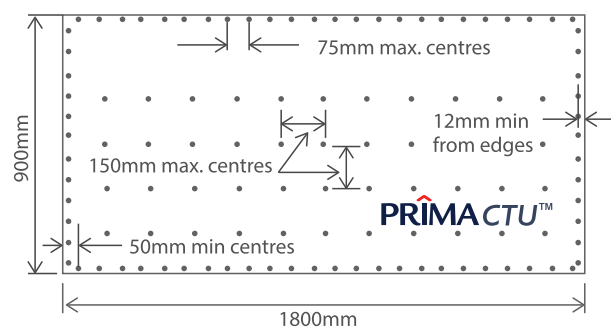
If the PRIMACTU™ panels will be finished with tiles, you must fix them with fasteners only.

The stud spacings must also be a maximum of 400mm.

#### IMPORTANT TO NOTE

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

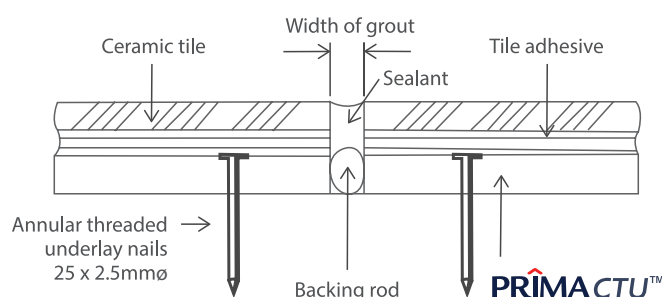
If you are tiling in wet areas, install a suitable waterproof membrane first. Ensure you follow the membrane manufacturer's instructions.



**Fixing locations**

### 5.3 CONTROL JOINTS

Panel control joints must be installed at 5.0m maximum centres. The expansion joints must also coincide with a tile joint.



**Detail at expansion joint**

## 6 INSTALLING THE PANELS - FINISHING

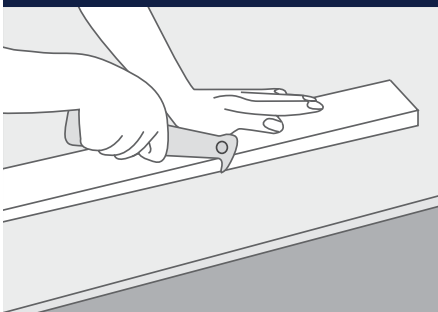
### 6.1 TILING

Before you begin tiling, ensure all panel joints are flush and allow a 2mm gap for expansion.

Once the joints are dry remove any dirt, grease or dust from the panel surfaces.

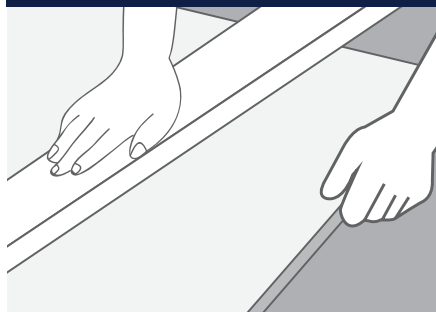
We'd also recommend reading the BRANZ 'Good Tiling Practice' guide to familiarise yourself with the correct techniques for preparing and installing tiles.

#### STEP 1



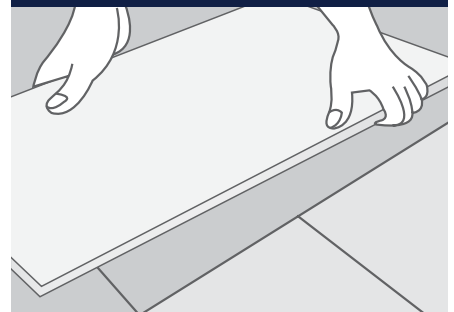
Cut **PRIMA CTU**™ using a “score and snap” knife. Use a straight edge as a guide while scoring a minimum of 1/3 of sheet thickness.

#### STEP 2



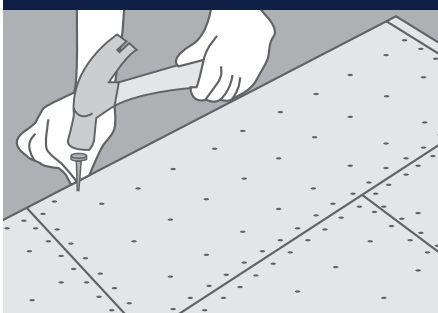
Hold the sheet firmly near the cut, while snapping the off-cut upward to break.

#### STEP 3



Lay **PRIMA CTU**™ across the floorboard direction in a staggered (brick) pattern. Sheet joints must not coincide with floorboard joints (provide a minimum of 100mm offset). Allow a minimum of 3mm gap between sheet edges and walls.

#### STEP 4



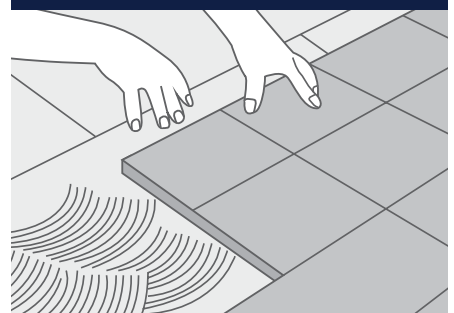
Fasten **PRIMA CTU**™ from centre and working outwards using the pre-printed nailing pattern. Use 25mm x 2.5mm underlay nails. Drive nails flush with sheet surface.

#### STEP 5



Apply tile adhesive onto **PRIMA CTU**™ using a notched trowel. Refer to adhesive manufacturer's instructions.

#### STEP 6



Lay ceramic tiles in accordance with tile manufacturer's recommendations.

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 PRIMA<sup>CTU</sup><sup>TM</sup>

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

## 8 USEFUL LINKS

For information on the design and specification of PRIMA<sup>CTU</sup><sup>TM</sup> panels, refer to:

- › [IBS pass<sup>TM</sup> \(Product Assurance Supplier Statement\)](#)

For information to help maintain PRIMA<sup>CTU</sup><sup>TM</sup> panels, refer to:

- › [IBS Care & Maintenance](#)

For the DIYer refer to:

- › [IBS Home Builder Info Sheet](#)

Our warranty for IBS supplied PRIMA<sup>CTU</sup><sup>TM</sup> panels refer to:

- › [IBS Warranty](#)



**Independent Building Supplies (IBS)** has distributed panel products around New Zealand since 1993. Our focus is on sourcing the best panel products available from around the world using sustainable, renewable resources. IBS products are supported by full technical literature and assistance, providing our customers with the **Best Products**, the **Best Service**, and the **Best Experience**.

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