

# Finipanel

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Internal Wall & Ceiling Lining



Installation Instructions

STA  
CK  
PANEL

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# Finipanel Installation Instructions

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### About Finipanel

Finipanel is manufactured from birch veneers glued together in a cross-banded construction. It has a surface veneer grain in short dimension.

### Surface

**Face:** Select

**Reverse side:** BB

Face veneer quality Premium is specially designed to meet the highest requirements of light surface appearance. Face is manufactured of one single sheet, is free from veneer patches and shows light and unified outlook.

### Machining

Shapes, profiles and drillings according to customer's drawings available on request.

### Panel sizes

Standard panel sizes	1220 x 2440 mm
Size tolerance (length/width)	± 1 mm/1000 mm
Squareness tolerance	± 1 mm/1000 mm



For PEFC™ products, visit [www.pefc.org](http://www.pefc.org)



**Table 1: Thicknesses and weights**

Nominal thickness (mm)	Numbers of plies	Thickness (mm)		Weight (kg/m <sup>2</sup> ) abt
		Min	Max	
12	9	11.5	12.5	8.2

Sizes and thicknesses relating to moisture content 8–12 %

Thicknesses and tolerances fulfill the requirements of Finipanel (Plywood - Tolerances for dimensions) and are in part stricter.

**Storage instructions**

Panels should be stored horizontally on a level surface in a dry, covered area.

**Installation instructions**

The panels can have dimensional changes due to changes in air humidity. Please leave

1–2 mm/m expansion gaps between panels during installation. Panels can be processed with ordinary wood working tools. Panels can be surface treated, e.g. varnished, lacquered or stained.

**Environment**

Finipanel is manufactured in Europe according to the strictest sustainability principles. By choosing Finipanel, our customers can have the confidence that their plywood and veneer come only from legal sources and conform to all relevant standards and regulations, including the European Union Timber Regulation.

Stack Panel sources from leaders in the integration of bio and forest industries into a sustainable future characterised by innovation, responsibility and resource efficiency.

**Additional information**

Wood being a living material, every panel is unique. So a photograph or a sample piece cannot represent all panels, colours, shades, graining, knots etc.

**Table 2: Preservative Treatment (internal use only)**

Untreated	
Preservative carrier	N/A
Colour	Natural
Fungicide	Heat treated dry wood
Insecticide	Heat treated dry wood
Other chemicals	N/A
Mouldicide	N/A
Notes	Plywood for dry interior use, supplied ex mill at <15% moisture content
Availability	Readily available
Applications (Refer NZ3602)	Interior dry protected

**Table 3: Section Properties of Finipanel**

		Section properties per mm width						
		Parallel to the face grain			Perpendicular to the face grain			
Nominal plywood thickness <sup>2</sup> (mm)	ID code <sup>3</sup>	Mass (kg/m <sup>2</sup> )	Parallel Moment of Inertia (kg/m <sup>2</sup> )	Section Modulus Z (mm <sup>3</sup> )	Shear Constant I/Q (mm <sup>2</sup> )	Perpendicular Moment of Inertia I (mm <sup>4</sup> )	Section Modulus Z (mm <sup>3</sup> )	Shear Constant I/Q (mm <sup>2</sup> )
12	2400-1200-12	6.6	115.0	19.2	9.3	33.4	9.3	5.4

**Table 4: Structural Properties of Finipanel**

Stress Grade	Characteristic Strength MPa	
	F11	
Bending ( $f_{pb}$ )	31.0	
Tension ( $f_{pt}$ )	18.0	
Panel shear ( $f_{ps}$ )	4.5	
Rolling shear ( $f_{pr}$ )	1.8	
Compression in plane of sheet ( $f_{pc}$ )	22.0	
Compression normal to the plane of the sheet ( $f_{pp}$ )	12.0	
Modulus of elasticity (E)	10500	
Modulus of rigidity (G)	525	

Source: AS/NZS 2269

Wood is strongest when stressed parallel to the grain and weakest across the grain, so the lay up or arrangement of veneers in the panel determines the properties. Because of its cross banded construction, plywood possesses significant strength and stiffness both parallel and perpendicular to the direction of the face grain, but is generally strongest and stiffest along the direction of the face grain.

The section properties of structural plywood in Table 1 are calculated in accordance with AS/NZS 2269 to allow

for the reduced contribution of veneers perpendicular to the direction of stress. For engineering design to NZS 3603, the section properties are multiplied by stresses and 'k' and  $\phi$  factors to determine resistances for limit states design.

Resistances and nominal strengths in Tables 4B and 4C assume all 'k' factors are equal to 1.0. Multiply tabled values by the strength reduction factor  $\phi$  and 'k' factors for specific in-service conditions for design to a structural code such as NZS 3603.

**Table 5: Strength Reduction Factors**

Structural Timber Material	Application of Structural Member		
	Category 1	Category 2	Category 3
	Structural members for houses for which failure would be unlikely to affect an area <sup>1</sup> greater than 25 m <sup>2</sup> ; OR secondary members in structures other than houses.	Primary structural members in structures other than houses; OR elements in houses for which failure would be likely to affect an area <sup>1</sup> greater than 25 m <sup>2</sup> .	Primary structural members in structures intended to fulfil essential services or post disaster function.
	<b>Value of Strength Reduction Factor <math>\phi</math></b>		
<b>Structural Plywood – AS/NZS 2269.0</b>	0.95	0.85	0.75

<sup>1</sup> In this context area should be taken as plan area.

### General Finipanel compliance information

Finipanel manufacture is third-party audited through the product quality control programme of the Engineered Wood Products Association of Australasia (EWPAA) which is itself audited by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ).

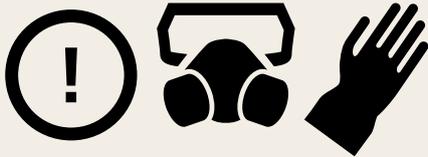
CHH Wood products is licensed by the EWPAA to stamp plywood with the EWPAA/JAS-ANZ Product Certification Mark. This certifies it has been manufactured under the third party audited Joint Product Certification programme to monitor compliance with joint Australian/New Zealand Standard AS/ NZS 2269 Plywood – Structural.

Plywood to this standard is referenced in the NZBC Acceptable Solutions and Verification Methods through:

- NZS 3602 The Use of Timber and Wood-based products for Use in Building
- NZS 3603 Timber Structures
- NZS 3604 Timber Framed Buildings
- AS/NZS 1604.3 Specification for Preservative Treatment, Part 3:Plywood
- E2/AS1 External Moisture.

**WARNING:** Plywood which is non-certified or is manufactured to standards other than AS/NZS 2269, such as US voluntary standard PSI-95, is not referenced in the NZBC. There can be significant differences between AS/NZS 2269 certified and non certified plywood around bond durability, structural ratings and veneer quality.

## VERY IMPORTANT!



### FIRST-AID MEASURES

**Skin contact:** Wash affected areas with soap and water. Get medical advice if rash or persistent irritation or dermatitis occurs.

**Eye contact:** Flush eyes with plenty of water. Move to fresh air. If irritation persists, get medical attention.

**Inhalation:** Move to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs.

**Ingestion:** Not applicable.

1. **Work outdoors where feasible or use mechanical ventilation.**
2. **Wear an approved respirator.**
3. **Warn others in the area.**

For further information refer to the material safety datasheet.

### General protection

This product may release small quantities of formaldehyde (CAS No. 50-00-0) in gaseous form. Emissions decrease with time as the panels age. Manual or mechanical cutting or abrasion of the product can produce dust from plywood.

### Personal protection

**Hand protection:** Gloves may be needed depending on dust conditions.

**Eye protection:** Wear goggles or safety glasses when manufacturing or machining the product. Wear approved NIOSH/MSHA respirator when the allowable exposure limits may be exceeded.

**Skin protection:** May be needed depending on dust conditions.

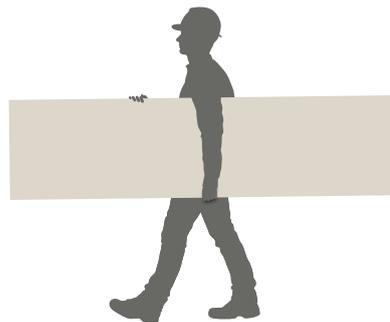
### Handling

Carry the panels by holding their lengthwise edges under your arm.

Take extra care to avoid hitting anything with the panels. Dropping the panels may damage the edges.

Don't touch the panels with dirty hands.

Finipanel can be ordered **pre-coated** from Stack Panel if required.



## Storage

Finipanel sheets must always be stored horizontally on level ground, protected from rain and sun. Recommended stocking conditions are: temperature  $\pm 20^{\circ}\text{C}$  and relative humidity of air approx 60%.



## Necessary tools



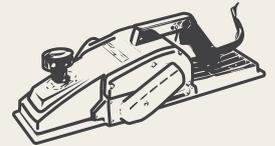
Dust-proof circular saw



Dust collector



Electric drill / screwdriver



Melamine planer



Tacker



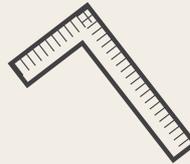
Hammer



Nail claw



Hand file



Framing square



Slate saw



Sealant cartridge gun



Tape measure

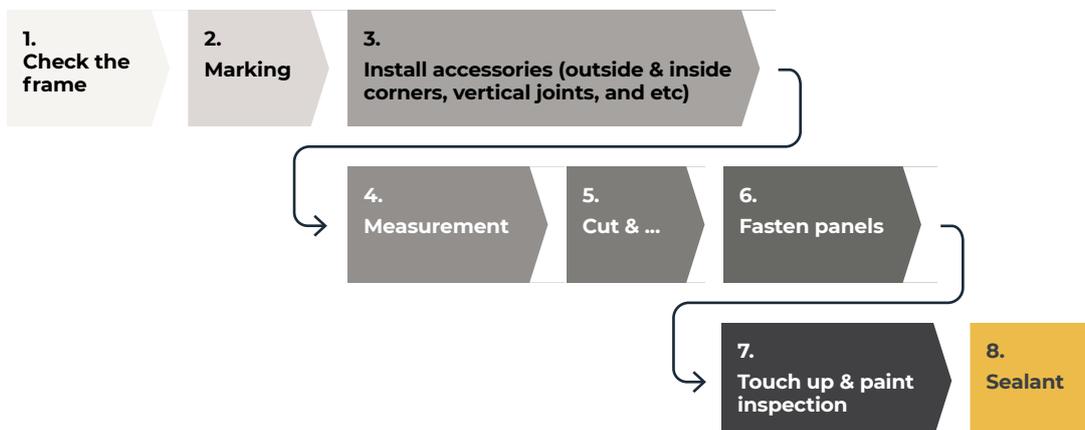


Plumb bob



Chalking line

## Installation order

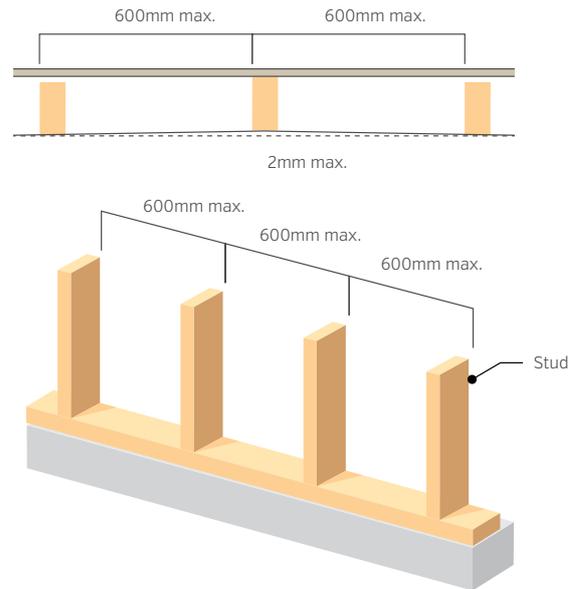


## Check the frame

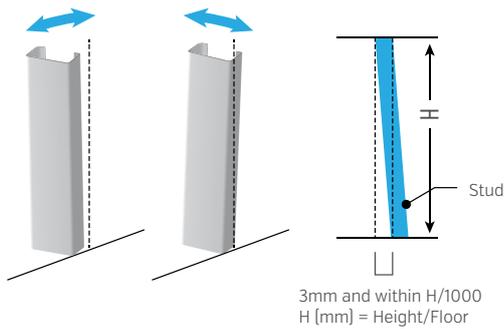
### Timber frame

Check that the frame is set out to accommodate wind loading, services and openings. Allow for 35mm battening and flashing plus...

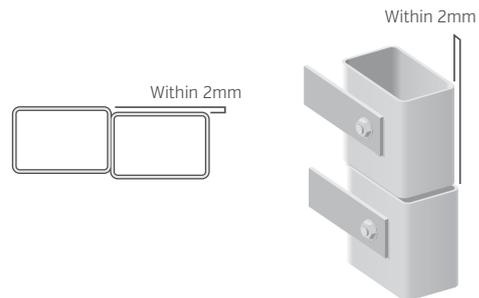
- Carefully place spacers so as not to block the ventilation holes behind the eave flashing.
- Check flashing is horizontal with a level.
- Fix the flashing with nails or screws at intervals of 600mm or less.



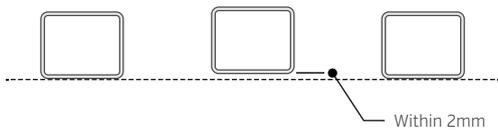
### Steel frame



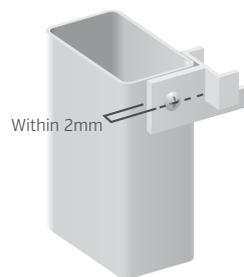
**A.** Frame vertical unevenness



**C.** Stud evenness



**B.** Eye of height unevenness

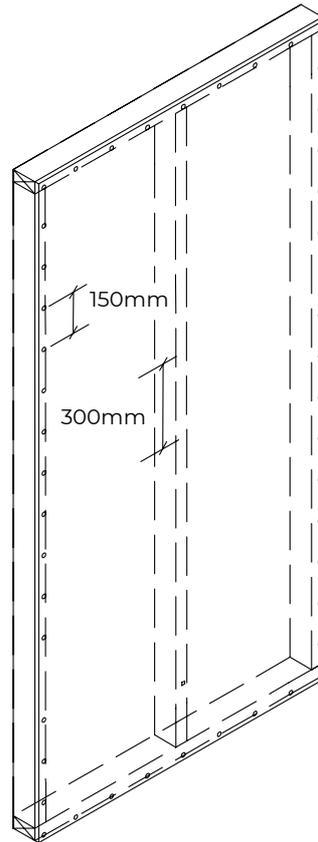


**D.** Screw heads & sash frame fringe

## Sheet fastening requirements

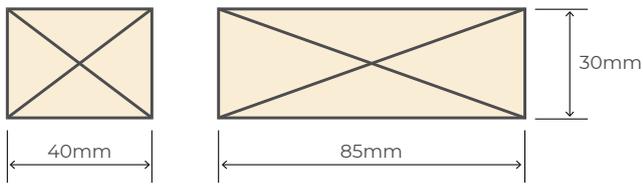
- Where there is risk of panel size change due to changes in moisture levels, allow a 2 to 3 mm expansion gap between sheets
- Use only flathead nails or screws, with or without construction adhesives
- Fastener length should penetrate at least 10 nail diameters into the framing or be three times the sheet thickness, whichever is the greater. Longer or ring shank nails may be specified
- Fasteners must be at least 3 fastener diameters or 7 mm from the edge of the sheet
- Standard fixing pattern: unless otherwise specified fasten edges and ends of sheets at 150 mm centres, and within the panel at no more than 300 mm centres (see diagram below)
- Use hot dipped galvanised fasteners or corrosion resistant fasteners (i.e. stainless steel) determined by design for specific hazards
- Where using stainless steel nails, nails must be annular grooved
- Refer to Table 6 for minimum fastener sizes
- Do not overdrive power driven nails.

Finipanel fastener spacings in vertical plane.

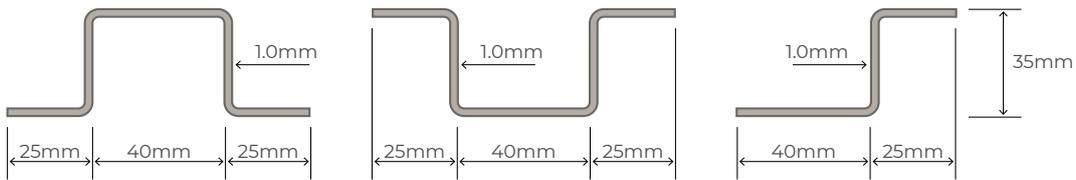


## Internal installation guide

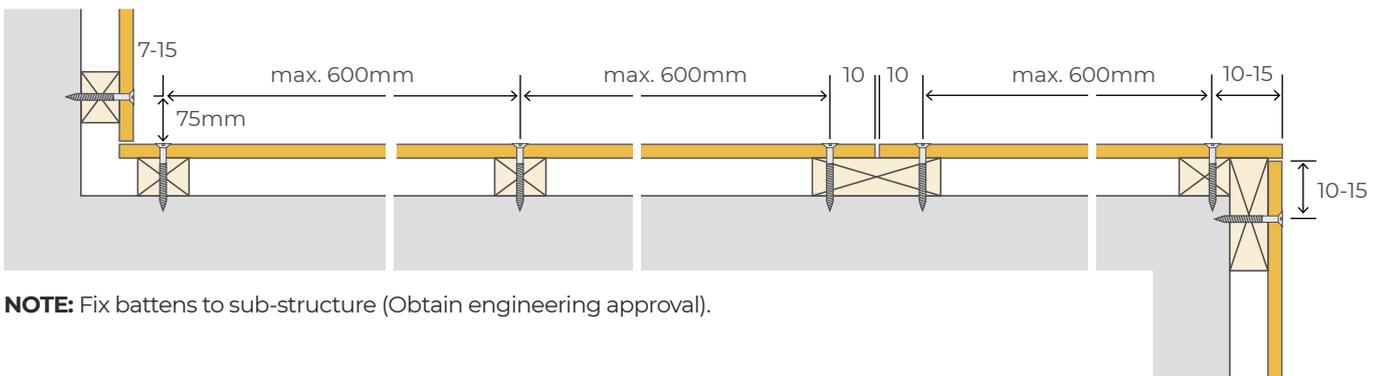
### Section of wooden structure (Class C18 Resistance).



### Section of structure in galvanised steel (DX51D Z+ galvanised steel).

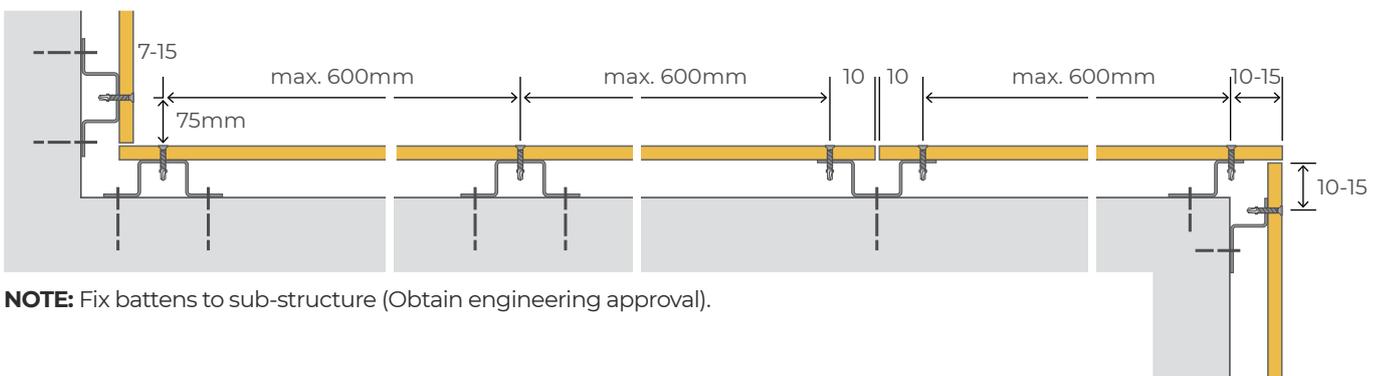


### Horizontal section – wooden structure



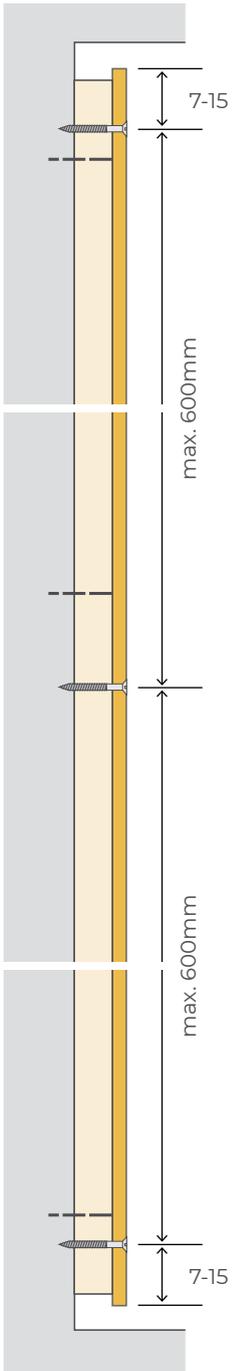
**NOTE:** Fix battens to sub-structure (Obtain engineering approval).

### Horizontal section – galvanised steel structure

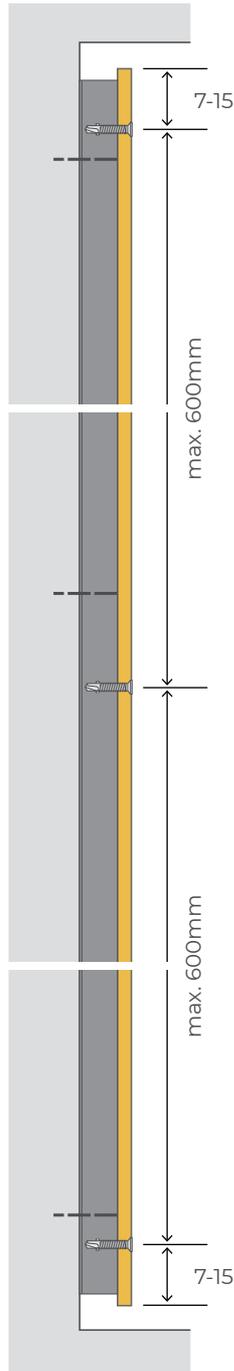


**NOTE:** Fix battens to sub-structure (Obtain engineering approval).

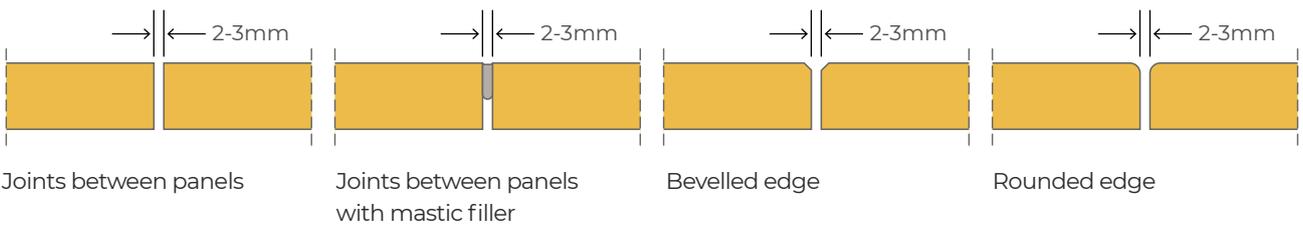
**Vertical section – wooden structure**



**Vertical section – galvanised steel structure**

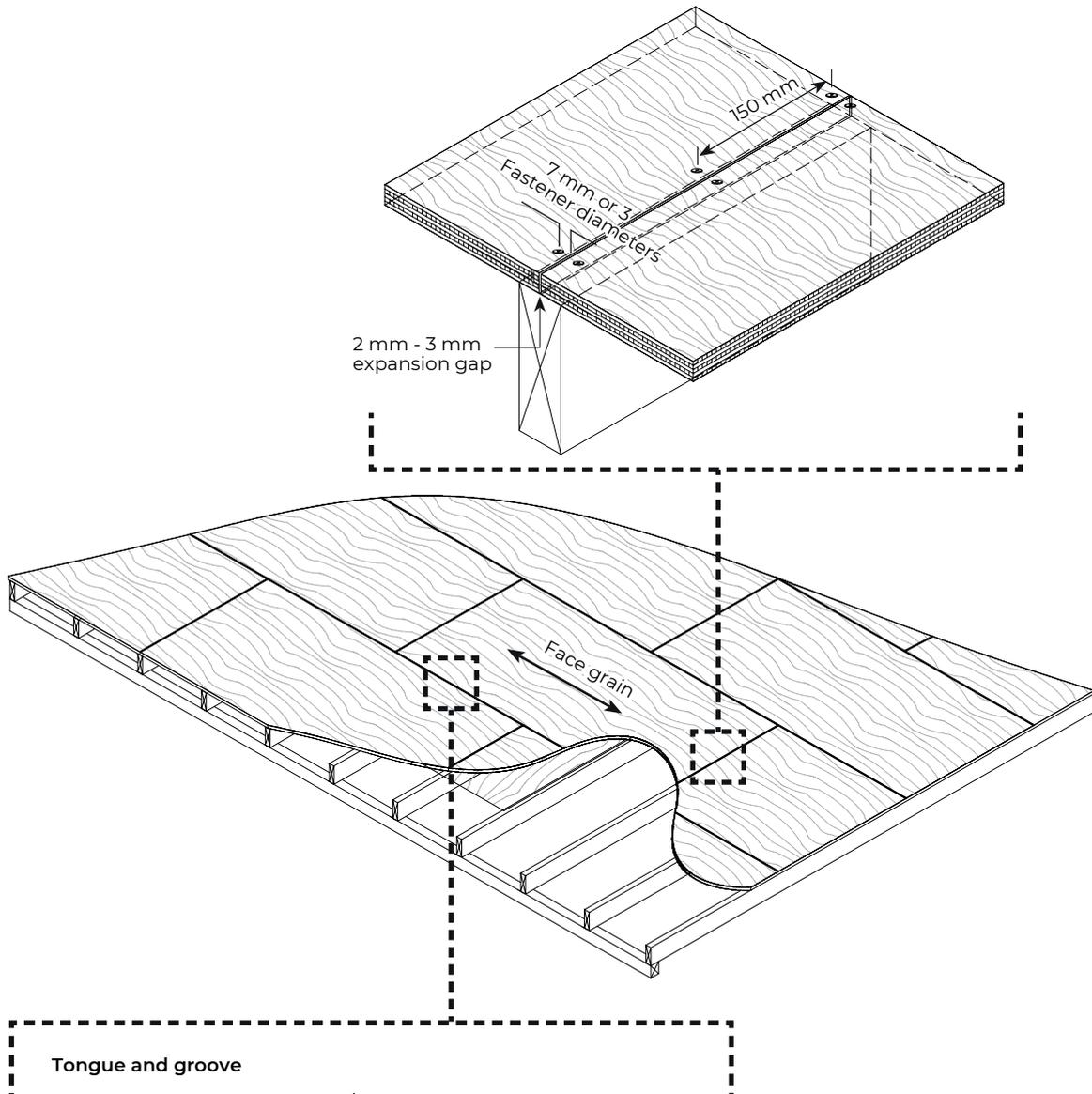


**Joints between panels**

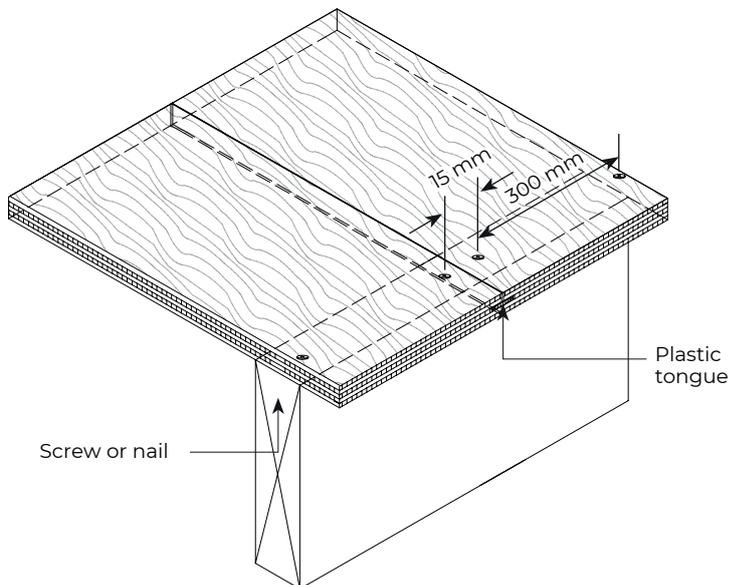


**Joints between panels** (Isometric view)

**Square edge and Butt ends**



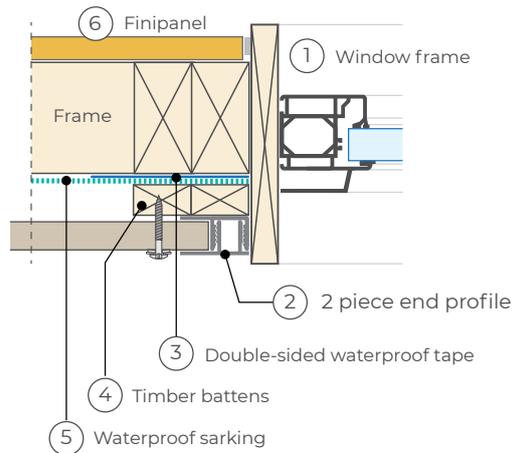
**Tongue and groove**



## Install direct fix (new builds)

### Window jamb board detail

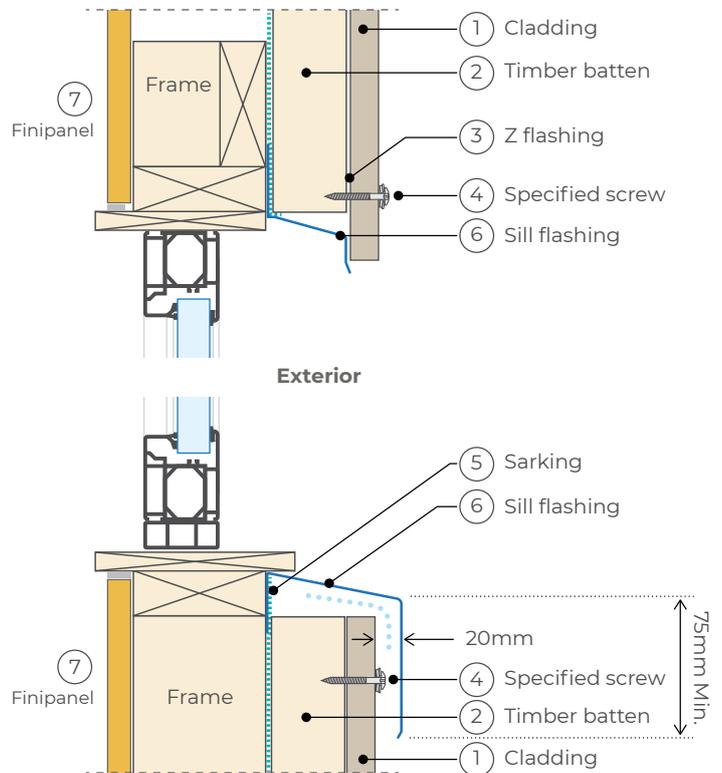
1. Window frame
2. 2-piece end profile
3. Double-sided waterproof tape
4. Timber batten
5. Waterproof sarking
6. Finipanel.



### Lintel section

#### Ground detail

1. Cladding
2. Timber batten
3. Z flashing
4. #10 specified screw
5. Sarking
6. Sill flashing
7. Finipanel.



**Table 6: Fasteners and Characteristic Shear Loads for Finipanel**

Nominal thickness (mm)	12mm	Load <sup>1</sup>
	15mm	
Minimum nail size in timber framing <sup>2</sup>	60 x 2.8 mm	736
Screw size in timber framing <sup>2</sup>	8g x 40 mm	1230
1.15 mm steelframing <sup>3</sup>	10x24x40 <sup>4</sup>	2000
Screw size in 2.80 mm steel framing <sup>3</sup>	10x16x40 <sup>4</sup>	1200

<sup>1</sup> The load is the characteristic load (N) for one fastener in single shear

<sup>2</sup> Characteristic load based on fixing into a timber of J5 joint group or better

<sup>3</sup> Self tapping, self countersinking screw

<sup>4</sup> Screw Numbers indicate: 30mm penetration into substrate min.

#### Notes

- Steel thickness, screw sizes, characteristic loads, refer to assemblies actually tested
- Other screw sizes may be used. Screw properties vary between screw suppliers and the suitability of a particular size should be verified by the designer for performance under changing physical conditions and cyclic loading
- Non-standard nailing may be specifically designed with NZS 3603 or similar.

## Adhesives

### Tube applied construction adhesives

Site applied construction adhesives may be used together with nails and screws for non permanent loads, reduced fastener popping, and to lower the risk of squeaking in floors. Available types include polyurethane (e.g. Holdfast® Gorilla Nailpower®) and elastomeric (e.g. Bostik® Wallboard Gold) based adhesives.

Elastomeric adhesives should meet the requirements of APA Performance specification AFG 01 Adhesives for field gluing plywood to wood framing. Other types should have appraisal from an independent authorising body such as BRANZ or equivalent authorities for the specific applications proposed.

Follow manufacturer's recommendations. In addition:

- Use a bead or daubs of adhesive as per manufacturer's recommendations
- Apply pressure using fastener patterns outlined in Table 6 Sheet Fasteners and Fixing
- Work from the middle of the sheet outwards to develop glueline pressure
- Ensure adhesives are compatible with treatment in the framing timber, see Table 2: Preservative Treatment.

## Finipanel care and maintenance

### About your premium product

Your Finipanel is a low VOC, low E0 panel uniquely sourced from Australian Certified, environmentally sustainable mills and is 100% renewable. Every sheet is different and unique. No one sheet will look the same as this is a natural product so you will see colour variation batch to batch, you may also see all the imperfections that make timber perfect such as small pin knots, light to strong grain swirls and timber cracks all evident and naturally occurring in timber veneers.

### Delivery

- Check your order and ensure the correct product and quantities are received.
- Note any transport damage or issues on the con note when goods are received and email it to: [info@stackpanel.com.au](mailto:info@stackpanel.com.au) prior to cutting/finishing other work starting on the material within 24 hours of delivery.

### Installation

- Carefully select the panels that best meet the customers' expectations (ie. grain and colour) for installation in the more prominent areas.
- Shade and variation occurs as Finipanel is a natural timber so there will be slight changes with each batch, samples may differ from the delivered product slightly.
- Follow the appropriate installation guides and procedures, the team at Stack Panel are always ready to help, so if you do have any questions feel free to email us [info@stackpanel.com.au](mailto:info@stackpanel.com.au).

### Returns and replacement information

- Claims will not be accepted once anything occurs to alter the original product.
- Claims for incorrect quantities must be made within 5 business days of the order being delivered.
- Claims will only be recognised if the original product has not been altered and is in re-saleable condition at the discretion of Stack Panel.
- Should you wish to make a claim, please supply the following information to [info@stackpanel.com.au](mailto:info@stackpanel.com.au):
  - Photos of the product (face and back)
  - Invoice number
  - Date of delivery.

### Pre-application

- Ensure plywood is stored evenly weighted down flat position inside, away from external elements and kept moisture and dust free.
- Place plywood in the area it will be installed to for observation at various times of the day, and from different viewpoints to ensure product meets your expectations. Then re-stack to ensure sheets stay flat.
- Plywood is fragile, please take care so no edges are knocked or faces are scratched when handling the product.

### Looking after your Finipanel

- Protect your product by not exposing it to moisture or direct sunlight, it will yellow over time naturally.
- Use mild damp rags to wipe the surface if there are stains, no high pressure cleaning.
- Check the finish recommendations, if raw, do not use oil based finishes on the product. Plywood will bow if not stored flat, do not use plywood in free-standing door applications, it must be fixed at all times to prevent bowing.

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