



# Specifier & Installer Guide

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“Where practicality  
meets finish.”

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## Product Overview

Triboard™ Lining is a resilient and versatile reconstituted timber interior lining manufactured from Radiata Pine sourced from sustainably managed plantation forests. Available in 10mm and 15mm thicknesses, Triboard™ Lining is designed for use in a wide range of residential and light commercial interior lining applications.

Triboard™ Lining provides a smooth, durable surface suitable for high-quality paint or clear finishes, making it an excellent choice for internal wall and ceiling linings where a strong, hard-wearing surface is required. Typical applications include high-traffic areas, feature walls, ceilings and general interior linings.

Triboard™ Lining is available in square edge (SQ) panels, and 400mm wide tongue & groove (TGV) panels, allowing for both large-format flat panel applications and decorative V-joint lining finishes, providing flexibility to suit a range of interior design and finishing requirements.

Triboard™ Lining square edge panels can also be used as bracing elements when designed in accordance with Juken New Zealand Ltd bracing system specifications.

### Features & Benefits

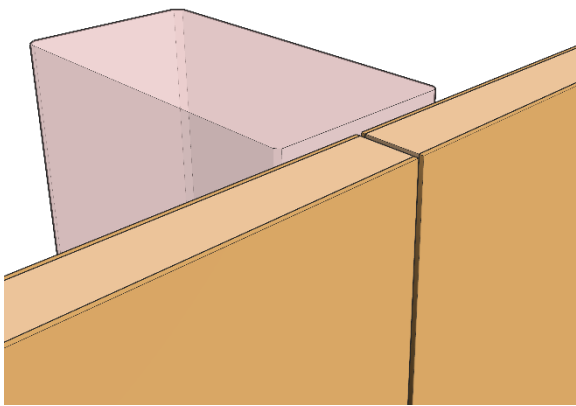
- Combines the structural strength of plywood with a smooth decorative surface.
- High impact resistance compared with traditional lining materials.
- Manufactured in New Zealand from responsibly managed plantation forests.
- 400mm wide TGV panels are easy to handle and install.
- TGV profiles allow off-stud joints, providing greater installation flexibility.
- Square edge panels can be used as bracing elements (10 mm and 15 mm sheets when designed to JNL bracing details).
- Can be installed using typical carpentry tools.



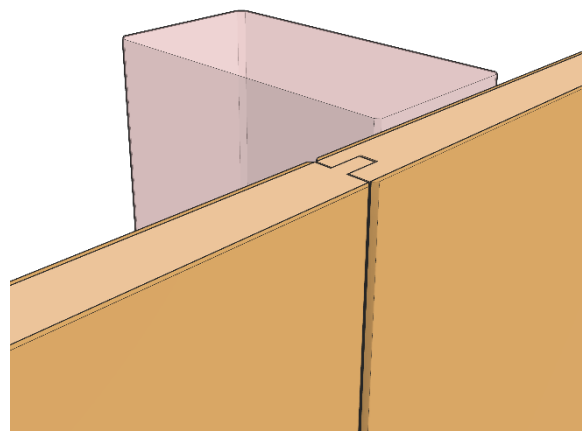
## Product Specification

Triboard™ Lining is a three-layer panel comprising an engineered strand core with thin MDF faces bonded to each side, creating a smooth and durable lining surface with high impact resistance.

This construction provides excellent stiffness relative to its weight, along with reliable load-bearing performance, strong screw-holding capability, and long-term dimensional stability.



*Triboard™ Lining  
Square Edge  
(SQ) Panel*



*Triboard™ Lining  
Tongue & Groove  
(TGV) Panel*

Panel Type	Thickness * (mm)	Length (mm)	Width (mm)	Nominal Density (kg/m <sup>3</sup> )	Bracing Option
Square Edge (SQ)	10mm	2400 3600	1200 1200	620	Yes
	15mm	2400 3600	1200 1200		
Tongue & Groove (TGV)	15mm	2400 3740	400 400		No

\* While this manual primarily applies to 10mm and 15mm Triboard™ Lining panels, 18mm and 20mm panels may also be used as internal linings in some applications. In general, the recommendations and installation practices within this manual apply to these thicker panels. However, 18mm and 20mm panels have not been assessed for wall bracing applications. Fixing lengths and related detailing may need to be adjusted accordingly.

## Scope of Use

Triboard™ Lining is intended for use as an internal wall and ceiling lining in dry areas, fixed to timber or steel framing in residential and light commercial buildings where a durable wood-based finish is desired.

Square Edge (SQ) Triboard™ Lining panels may also be used as bracing elements when designed and installed in accordance with Juken New Zealand Ltd bracing specifications and supporting technical literature.

Triboard™ Lining applications, including proprietary bracing systems, are supported by relevant testing and performance evidence for the New Zealand Building Code (NZBC).

### Limitations of Use

Triboard™ Lining is not to be used:

- In environments subject to sustained high humidity (>95% RH), liquid water, or repeated wetting, including saunas and similar environments.
- Where temperatures exceed 35°C over large areas for prolonged periods (e.g. ceiling heating) or 50°C in localised areas (e.g. adjacent to fuel-burning appliances).
- In exterior or marine environments exposed to weather.
- For window reveals.

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## Responsibilities

This Specifier and Installer Guide provides general guidance on recommended design and installation practices for typical internal wall and ceiling lining applications. It is intended as a reference document only and does not replace the judgement or responsibilities of suitably qualified building professionals when designing or constructing a project.

The information presented does not address every possible circumstance. Designers, architects, and installers must confirm that the details are appropriate for the specific project conditions. Installers are also responsible for ensuring that any fixings, adhesives, and sealants used are suitable and compatible with the surrounding materials and components.



# Compliance

The following clauses of the NZBC are applicable to Triboard™ Lining.

## Structure B1

Triboard™ Lining meets the requirements of NZBC Clause B1.3.1, B1.3.2, and B1.3.3 (a), (b), (f), (h), (i) and (j), and B1.3.4 (d) when used as part of a designed bracing system, supported by testing in accordance with P21.

Triboard™ Lining meets the requirements of NZBC Clause B1.3.1, B1.3.2, and B1.3.3 (a) and (b) when used as an internal wall or ceiling lining, supporting self-weight and imposed loads under normal in-service conditions.

Triboard™ Lining panels are manufactured in accordance with AS/NZS 1859.1 Reconstituted wood-based panels: Particleboard.

## Durability B2

Triboard™ Lining meets the requirements of NZBC Clause B2 Durability when installed and maintained in accordance with this guide.

- B2.3.1 (b) – 15 years when used as an internal wall or ceiling lining.
- B2.3.1 (a) – 50 years when used as part of a bracing system.

Durability performance is supported by the established in-service history of Triboard™ panel products in New Zealand, and BRANZ Appraisals of Triboard™ systems demonstrating long-term performance when used in accordance with supporting technical literature.

## Hazardous Building Materials F2

Triboard™ Lining meets the requirements of NZBC Clause F2 Hazardous Building Materials and will not present a health hazard when handled and installed in accordance with this guide. Triboard™ Lining panels are manufactured in accordance with AS/NZS 1859.1 and AS/NZS 1859.2 and are produced to meet or exceed E-Zero formaldehyde emission potential requirements.

## Basis of Compliance

- AS/NZS 1859.1:2004 Reconstituted wood-based panels. Part 1: Particleboard.
- AS/NZS 1859.2:2004 Reconstituted wood-based panels. Part 2: Dry-processed fibreboard.
- Juken New Zealand Ltd technical literature for Triboard™ products including BRANZ Appraisal No. 481 (2019), and BRANZ Appraisal No. 593 (2022).
- NZBC C/AS Table 8.5.2.1. Note: BRANZ Product-specific fire test evidence (FH5119) is currently under review and will be referenced upon reissue.
- Triboard™ Material Safety Data Sheet (MSDS).

## Sustainability

Triboard™ Lining is manufactured in New Zealand by Juken New Zealand Ltd at their Kaitaia facility using wood fibre sourced from responsibly managed plantation forests. Wood is a renewable resource that stores carbon throughout the life of the product.

The Kaitaia mill operates under Forest Stewardship Council® (FSC®) Chain of Custody certification, enabling Triboard™ panels to be supplied with FSC Mix or FSC Controlled Wood claims where specified. This confirms timber is sourced in accordance with recognised responsible forest management standards.



The mark of  
responsible forestry



## Design Considerations

### Structure

Triboard™ Lining can be installed directly to timber or light gauge steel framing. Panels shall be installed on wall or ceiling framing at maximum 600mm centres, reduced to 400mm centres for 10mm Triboard™ Lining on ceilings.

Triboard™ Lining may be used as part of a bracing system when installed in accordance with the tested system requirements, on framing to NZS 3604, and fixing details under the Bracing section.

### Durability

Triboard™ Lining is manufactured from a reconstituted wood-based panel product with a demonstrated history of use in New Zealand building applications, including internal linings and structural systems. When used as an internal wall or ceiling lining in dry areas, and installed and maintained in accordance with this guide, Triboard™ Lining is expected to meet the required minimum serviceable life of 15 years.

### Internal Moisture

Triboard™ Lining is manufactured with adhesives that provide improved durability in areas of high surface humidity; however, it is not waterproof and must not be exposed to water splash, including areas adjacent to sanitary fixtures where water exposure is likely, in accordance with NZBC E3 Internal Moisture. Installation must ensure moisture penetration is prevented.

### Fire

Triboard™ Lining, as a wood-based panel product ( $\geq 600 \text{ kg/m}^3$ ,  $\geq 9 \text{ mm}$  thick), may achieve a Group Number 3 classification in accordance with NZBC C/AS Table 8.5.2.1, subject to coating limitations.

### Heat Sources

Triboard™ Lining must not be exposed to excessive heat from appliances such as fireplaces, heaters, ovens, or cooking equipment. Surface temperatures must not exceed 50°C. Clearances and protection shall be provided in accordance with the appliance manufacturer's instructions.

### Panel Layout

Triboard™ Lining square edge (SQ) panels may be installed vertically or horizontally over wall or ceiling framing and all sheet edges must be supported by framing. When used as a bracing system, square edge panels must be installed vertically.

Triboard™ Lining Tongue & Groove (TGV) panels may be installed vertically or horizontally over wall or ceiling framing, form a self-supporting joint profile, and do not require framing directly behind panel joints. Triboard™ Lining TGV panels are not used in bracing applications.

### Ceiling Ventilation and Insulation

Ceiling linings exposed to elevated temperatures or humidity shall have insulation installed directly above, with adequate roof space ventilation provided.

For skillion roofs, maintain a continuous air gap between the insulation and roofing underlay, extending from soffit to ridge (or high-level ventilation point), to allow air movement and control temperature and moisture.

### Finishing

Triboard™ Lining requires a protective surface finish prior to building occupancy. Acceptable finishes include paint, clear polyurethane, or similar protective coatings.

## Bracing

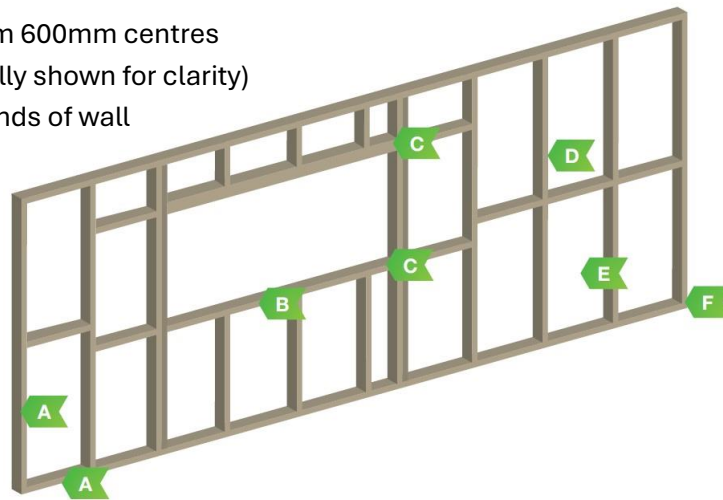
The following requirements apply where Triboard™ Lining Square Edge (SQ) is used as a bracing element.

- All framing shall comply with NZS 3604.
- The bracing units shown are for a 2.4m high wall. For walls more than 2.4m high, the bracing units shall be reduced on a pro rata basis in accordance with NZS 3604. For example, for a 3m high wall, the bracing units (wind) for 10mm Triboard™ Lining SQ are calculated as  $2.4/3 \times 105 = 84$  BU/m.
- The bracing units shown are for board fixed to only one side of the framing.
- Fixing to intermediate framing is at

200mm centres, fixing to sheet edges as per table below.

- Nails for fixing board to wall framing to be 40 x 2.8mm diameter galvanised flat head nails. Gun fired nails 2.8mm diameter Full Round Head of equal or longer lengths are acceptable as an alternative.
- Wood panel construction adhesive (in dabs at 200mm centres) is required. Avoid glue and fixing in same location.
- Fixing using gun fired brads is approved. Wind bracing rating is 55 BU/m.
- Intermediate noggs are not necessary for 15mm Triboard™ Lining.
- 12kN tie down only to be used into concrete floor.

- A** Edge and end nail spacing as per table below
- B** Edge nail spacing around opening and along adjacent noggs
- C** 6kN strap
- D** Stud spacing at maximum 600mm centres
- E** Board on one face (not fully shown for clarity)
- F** 6 kN tiedown to floor at ends of wall



Triboard™ SQ Thickness (mm)	Minimum Wall Length (mm)	Nail Spacing (mm)	Tiedowns (kN)	BU/m Wind	BU/m Earthquake
10	600	150	6	105	125
15	600	150	6	115	130
15	1200	75	12 <sup>2</sup>	150	165

The above information has been developed from tests carried out in the Timber Laboratory of SCION in accordance with the P21 test method. Not all product use options can be described in this table and additional end use and specifying information are available on request.

# Before Installation

## Health & Safety

Triboard™ Lining is manufactured from wood-based products. Standard health and safety precautions should be followed when handling, cutting, drilling, or installing wood-based panels.

The Absolutely Essential Health and Safety Toolkit, published by WorkSafe New Zealand in collaboration with ACC, provides guidance on safe construction practices. Relevant topics include site access, protection of members of the public, working at height, and the safe use of tools and machinery.

When cutting, drilling, or fixing Triboard™ Lining, tools should be fitted with dust extraction systems and used in well-ventilated areas. Appropriate personal protective equipment (PPE) should be worn, including safety glasses, hearing protection, and a P1 or P2 dust mask.

## Formaldehyde

Triboard™ Lining panels are manufactured to meet or exceed the E-Zero formaldehyde emission potential requirement in accordance with:

- AS/NZS 1859.1:2004 – Reconstituted Wood-Based Panels – Particleboard
- AS/NZS 1859.2:2004 – Reconstituted Wood-Based Panels – MDF

For further product-specific health and safety information, refer to the relevant Material Safety Data Sheets (MSDS) available on the JNL NZ website.

## Storage and Handling

Triboard™ Lining panels are intended for interior use only and must be kept dry at all times. The following practices shall be followed:

### Conditioning

Panels should be conditioned at the installation site for 24 to 48 hours prior to cutting or installation. Stack on fillets to allow air circulation to both faces and achieve moisture equilibrium.

### Storage

Store panels flat on uniform thickness bearers or fillets at maximum 1200mm centres. Bearers must fully support the panel pack and be placed on a flat, level, dry surface. Keep panels clear of the ground and protected from moisture. Remove plastic strapping as soon as practicable to prevent edge indentation.

### Protection

Protect panels from direct sunlight, heat, and weather during storage and handling. Where stored outside temporarily, use a breathable cover supported clear of the pack to allow ventilation and prevent moisture build-up.

### Handling

Avoid damage to panel faces and edges during handling and keep panels clean. Remove dust prior to painting or priming.

### Moisture Control

Do not store or install panels in contact with framing exceeding 18% moisture content. Correct storage, conditioning, and provision of joint clearances will help accommodate panel movement and reduce moisture related distortion.

# Installation Overview

## Working with Triboard™ Lining

Triboard™ Lining panels can be easily machined, grooved, and routed in any direction using standard woodworking tools.

Panels can be cut with a fine-toothed hand saw or circular saw, with the blade adjusted to protrude just through the board thickness. For volume production, tungsten-tipped machine tools are recommended.

To minimise edge breakout and achieve a clean finish, apply only light pressure when using power tools.

## Pre-installation Checklist

- Installation must always be carried out under the supervision of a Licensed Building Practitioner (LBP) with the relevant Licence Class.
- Prior to installation, confirm that Triboard™ Lining is in sound condition, all required tools and accessories are available on site, and the sheets are free from contamination resulting from sub-trades, moisture, or adverse site conditions.
- Installation must not begin until the building is closed in and weatherproof.

## Fixings

**Timber Framing** - A 2.5 mm diameter flat head nail or 8g countersunk coarse-thread wood screw is recommended, driven flush with the panel surface without damaging the board face.

**Steel Framing** - A self-drilling wafer head 12g screw is recommended, suitable for fixing wood-based panels to steel framing of up to 1.2 mm thickness.

## Triboard™ Lining Recommended Fixing Requirements Applies to standard lining only. Refer to bracing section.

Triboard™ Panel	Timber Framing		Steel Framing	Fixing Centres		Fixing Distance From Sheet Edge	Fixing Distance From TGV Joint
	Timber Nail	Timber Screw	Steel Screw	Sheet Edges	Sheet Centres		
SQ 10mm	2.5 x 40mm	8g x 30mm	12g x 20mm	200mm	300mm	10mm	N/A
SQ 15mm	2.5 x 45mm	8g x 40mm	12g x 25mm	200mm	300mm	10mm	N/A
TGV 15mm	2.5 x 45mm	8g x 40mm	12g x 25mm	~180mm (3 per panel)	~180mm (3 per panel)	10mm	15mm

## Construction Adhesive

Construction adhesive suitable for bonding wood-based panels to timber or steel framing is recommended to support mechanical fixings. Apply adhesive to framing members only. Do not apply within tongue and groove joints or at fixing locations. Follow manufacturer instructions and ensure compatibility. Power-driven brads may be used with adhesive as an alternative fixing method.

## Panel Joints

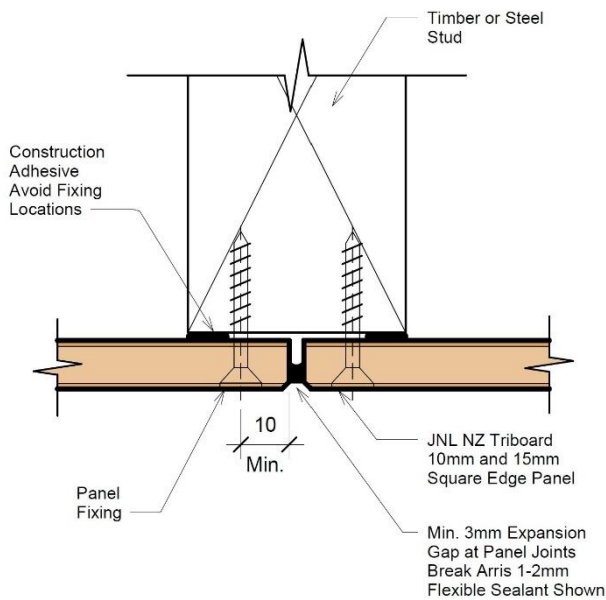
Expansion joints shall be provided between Triboard™ Lining panels to accommodate movement.

Triboard™ Lining Square Edge (SQ) panels shall be installed with a minimum 3mm clearance between panels. Gaps shall be finished in accordance with the specified jointing system (e.g. flexible sealant or cover batten).

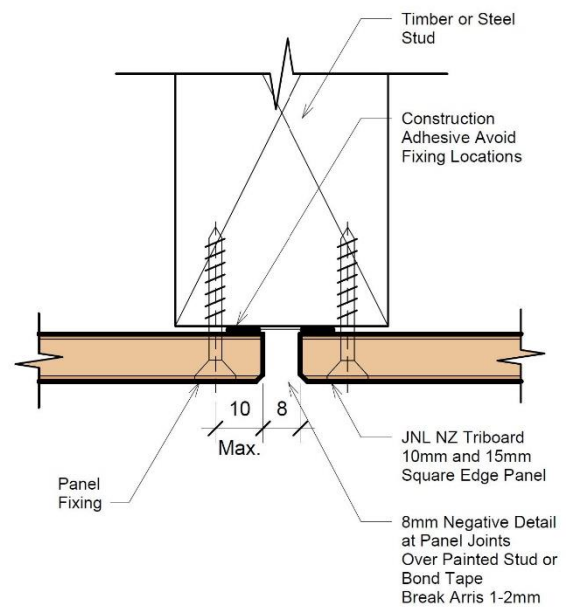
Panel arrises are recommended to be lightly broken for appearance and finishing purposes.

When a negative details aesthetic is desired, install SQ panels with an 8mm gap between panels over a pre-painted stud or bond tape.

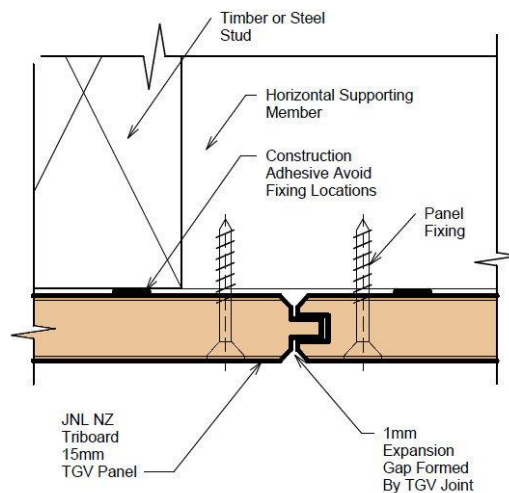
Triboard™ Lining TGV panels are designed to interlock and form the required joint. No additional expansion gap is required, as correct installation provides the required clearance (typically ~1 mm).



**Triboard™ Lining Square Edge (SQ)  
Panel Standard Joint**



**Triboard™ Lining Square Edge (SQ)  
Panel Negative Joint**



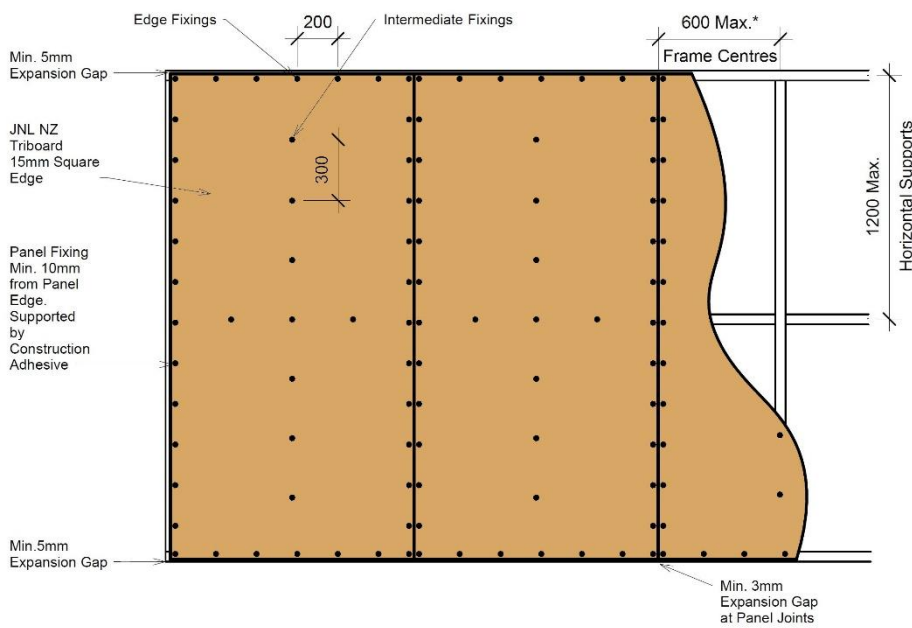
**Triboard™ Lining Tongue &  
Groove (TGV) Panel Joint**

## Square Edge Panel Layout

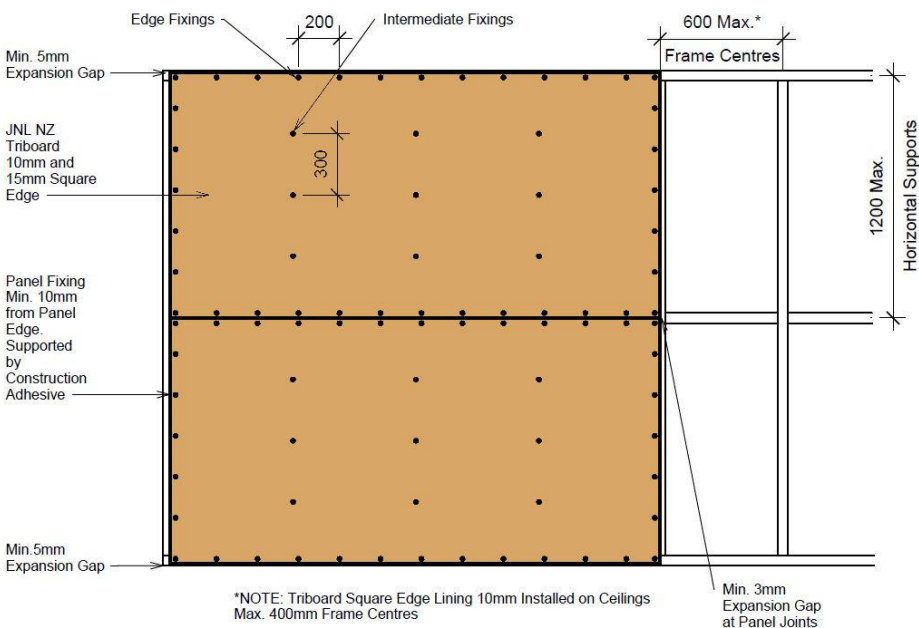
Triboard™ Lining square edge (SQ) panels may be installed vertically or horizontally over wall or ceiling framing. Where used as a bracing element, panels shall be installed vertically. All panel edges shall be fully supported by framing.

Panel adhesive is recommended in conjunction with mechanical fixings for all applications to improve panel stability and finish.

Panels shall be installed on wall or ceiling framing at maximum 600mm centres (reduced to 400mm centres for 10mm Triboard™ Lining on ceilings), with intermediate horizontal supports at maximum 1200mm centres.



***Triboard™ Lining Square Edge (SQ) 15mm Panel Vertical Install***



***Triboard™ Lining Square Edge (SQ) 10mm and 15mm Panel Horizontal Install***

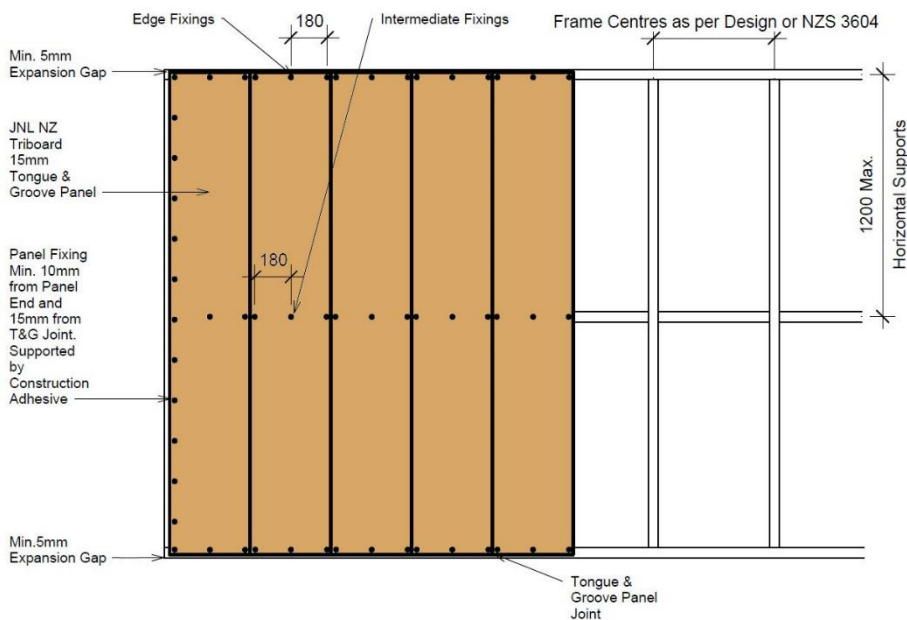
## Tongue & Groove Panel Layout

Triboard™ Lining Tongue & Groove (TGV) panels may be installed vertically or horizontally over wall or ceiling framing, form a self-supporting joint profile, and do not require framing directly behind panel joints.

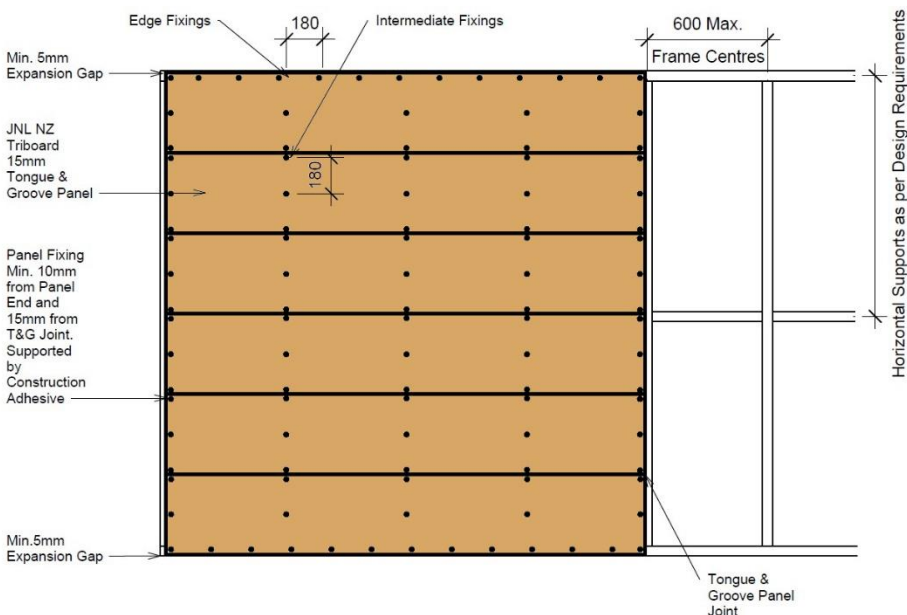
Panel adhesive is recommended in conjunction with mechanical fixings for all applications to improve panel stability and finish.

Panels shall be fixed to framing using fixings at approximately 180mm centres along each support (e.g. nogging or intermediate framing), typically providing three fixings per panel width per support.

Triboard™ Lining TGV is not used as wall bracing and does not perform a structural function.



*Triboard™ Lining  
Tongue & Groove (TGV)  
Panel Vertical Install*



*Triboard™ Lining Tongue  
& Groove (TGV) Panel  
Horizontal Install*

## Other Considerations

### Panel Clearances

Expansion gaps shall be provided to allow for movement of Triboard™ Lining.

Provide clearance at the top and bottom of panels as follows:

- 5mm clearance at the floor and ceiling for panels up to 2400 mm height.
- 10mm clearance at the floor and ceiling for panels up to 3740 mm height.

Ensure framing members, including studs, purlins, rafters, and beams, allow for these clearances, particularly where large wall areas or long runs of panels are installed.

Provide 8 to 10mm clearance between panel edges and fixed structural elements, such as beams or columns.

### Exposed Beam Ceiling Installations

Pre-condition panels prior to installation. Seal all faces and edges with a protective coating before fixing.

Where practicable, install ceiling linings after the roof covering is in place to limit moisture exposure during construction.

Where panels are fixed over exposed rafters or purlins, sealing of all faces and edges is required to minimise moisture uptake during construction and in service.

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## Construction Details

The following details are available from the JNL NZ website.

Detail Number	Detail Title
JNLTL001	TRIBOARD™ LINING SQUARE EDGE PANEL 10MM VERTICAL INSTALL
JNLTL002	TRIBOARD™ LINING SQUARE EDGE PANEL 15MM VERTICAL INSTALL
JNLTL003	TRIBOARD™ LINING SQUARE EDGE PANEL 10MM AND 15MM HORIZONTAL INSTALL
JNLTL004	TRIBOARD™ LINING SQUARE EDGE PANEL 10MM CEILING INSTALL
JNLTL005	TRIBOARD™ LINING TONGUE & GROOVE PANEL VERTICAL INSTALL
JNLTL006	TRIBOARD™ LINING TONGUE & GROOVE PANEL HORIZONTAL INSTALL
JNLTL007	TRIBOARD™ LINING SQUARE EDGE PANEL STANDARD JOINT
JNLTL008	TRIBOARD™ LINING SQUARE EDGE PANEL NEGATIVE DETAIL JOINT
JNLTL009	TRIBOARD™ LINING TONGUE & GROOVE PANEL JOINT

## Finishing

Triboard™ Lining must be finished with a suitable protective coating system to reduce moisture uptake and provide the desired surface appearance. Triboard™ Lining should be primed or sealed as soon as practical after fixing. For preferred face appearance, Triboard™ Lining is generally reversible, allowing the installer or designer to select the preferred face prior to finishing.

In general, coating systems suitable for MDF substrates are appropriate for Triboard™ Lining.

Coating selection and application shall be carried out in accordance with the coating manufacturer's recommendations.

### Indicative Finishes

Below, achieved using Danish Oil by WOCA, supplied by Design Denmark, are provided for inspiration.



## Maintenance & More Information

### Maintenance

Triboard™ Lining does not normally require maintenance but must be kept dry and protected from moisture.

Where coatings are applied, follow the coating manufacturer's maintenance and reapplication instructions.

### More Information

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