



INTERIOR LINING BOARD Installation Instructions

REMEMBER....

Timber is a unique material – one made by nature, not by man.

Much of timbers' warmth and beauty is derived from its distinctive appearance, and specific characteristics naturally developed during the growth cycle.

Because it has a cellular structure, even kiln seasoned timber will respond slightly, exhibiting minor dimensional movement, over Australia's diverse range of seasonal climatic conditions.

**FOR MORE INFORMATION
FREECALL 1800 337 703**

In order to ensure a satisfactory installation of Tilling Timber interior lining, the following points should be observed.

STORING ON SITE

Lining should be stored in a dry, protected area. If stored on unsealed ground, place lining packs on bearers to give a minimum 200mm above ground clearance until ready for use.

ACCLIMATISATION

All Tilling Timber interior linings are kiln seasoned to an "Equilibrium Moisture Content" not greater than 15% and no less than 8%. The lining boards are sold shrink wrapped to ensure protection during delivery and prevent moisture uptake. As each installation varies slightly from the next, it is advisable to allow the lining boards to acclimatise to their new environment.

To do this remove the plastic wrapping and separate the boards so that they have free air flow on both sides and leave on site for 24-48 hours before installation.

Note– Lining boards should not be unwrapped or fixed during periods of excessive dampness.

"AL FRESCO" AND "EXTERNAL UNDERCOVER"

Interior lining boards are manufactured specifically to be installed in the interior of homes however they can be installed in "Al Fresco" ceilings or External Undercover situations under the following conditions:

1. "Al Fresco" ceilings- The ceiling area must be weather protected by a perimeter beam or fascia suggested min 100mm deep but of a depth to provide protection from any direct (or blown in) weather.
2. External Undercover must be an area that cannot be exposed to any direct (or blown in) weather.

3. Lining boards must be finished including applying a coat of the selected finish to the back, front, edges and cut edges of each board prior to installation.

In these instances corrosion resistant nails should be used.

However- Interior lining boards should not be installed in the above situations in climatic areas of possible Extreme Weather e.g. Alpine, Desert, High Moisture or Coastal (Coastal being where product could be subject to salt spray.)

Note- 12mm & thinner interior lining boards are not suitable for internal swimming pool enclosures or eaves.



AREAS OF POSSIBLE HIGH MOISTURE

If installing lining boards in areas of possible high moisture (e.g.: bathrooms, kitchens, laundries, spa rooms etc.) it is recommended that a coat of the selected finish be applied to the back, front, edges and cut edges of each board PRIOR to installation. Corrosion resistant nails should be used.

PREFIXING

Prior to xing, ensure compliance of lining boards with the grade specified. Any boards that are not within expressed grade parameters should be set aside and not installed. Product installed is deemed acceptable grade.

If choosing rustic/knotty grades, confirm soundness of knots and saw dock if deemed necessary – chipped/star checked knots can be remedied with a small touch of colour tinted putty prior to finishing. All natural timber and Western Red Cedar in particular will naturally vary in colour from board to board so select and pre-arrange boards in a fixing sequence so as to achieve an aesthetically pleasing end result.

If battening is required to present a suitable surface for installation, then the battens should be installed at suitable centres (refer FIXING sections) If the battens are timber, they should be kiln dried and accurately sawn or dressed. After fixing, battens should be appropriately packed out to provide for a true and even surface prior to securing lining boards.

FIXING-WALLS

For wall installation, either vertical or horizontal, the interior lining should be securely fixed at centres not exceeding 600mm. In the case of 14mm thick lining, fixings should not exceed 900mm centres.

Fixing should be a combined nail and adhesive technique utilising conventional deep drive nails of a length to suit the product thickness e.g.:

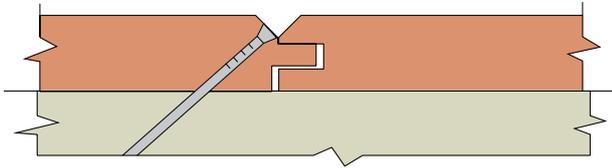
- 25 x 1.6mm (9mm thick boards)
- 32 x 1.6 (10mm thick boards),
- 38x1.6 (12mm thick boards),
- 45x1.6 (14mm thick boards) or equivalent gun brad e.g.:

Paslode (B20225, B20232, B20238, B20245) or similar and an elastomeric wall board adhesive such as HB Fuller Maxbond or similar. The adhesive manufacturer's instruction for use should be observed for optimum results.

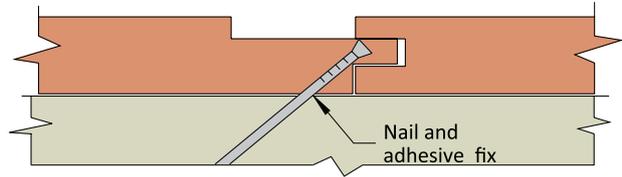
Firstly, apply beads of adhesive to framing (or battens) sufficient for the installation of five (5) boards at any one time.

Locate the first board and nail (face nailing may be necessary). Most lining proles have secret nail facility so secret nail following boards by nailing at an oblique angle in a position to conceal the fixing under the overlapping edge

NON SECRET NAIL FIXING DETAIL



SECRET NAIL FIXING DETAIL



In the case of non-secret nail V-joint profiles, fix by oblique nailing into the inner corner of tongue.

If fixing boards in a horizontal or diagonal manner, start at the lowest point and install with tongue edge uppermost.

As work proceeds, check that the boards are plumb or level (as appropriate), fitting each board snugly to that previously fixed. Avoid over cramping.

The securing of the final board will necessitate nailing through the face; such board shall be carefully punched and filled with colour tinted putty prior to finishing.

If you chose to fix lining directly to wall surfaces by adhesive alone, ensure that such surfaces are structurally sound, dry, free of dust or soiling, grease and oil, and if painted, devoid of any loose or flaking paint film.

Provision must be made for physical support to the boards for at least 24 hours to allow for the curing of the adhesive.

Once all boards are installed, fill any exposed punched nails with matching colour tinted putty and fine sand when dry. Cut and fit any trim mouldings to lining prior to sealing the boards.

FIXING-CEILINGS

When timber lining is to be installed as a ceiling lining under sheet metal roofing with no ceiling space, it is essential to use a breather type sarking between the timber boards and the roof sheeting to minimise condensation effects. Without such sarking, moisture from condensation on the underside of the metal roof will collect on the ceiling boards and cause swelling and shrinkage to occur, leading to ultimate distortion of the boards affecting visual appearance.

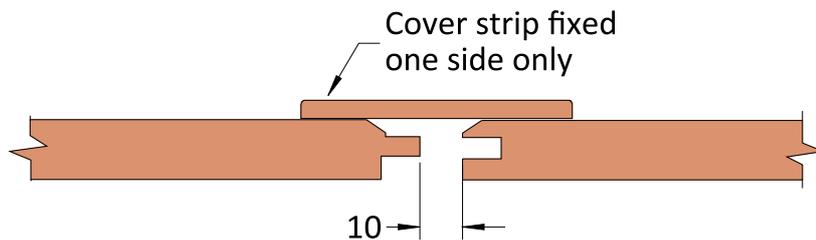
Generally, linings should be fixed to ceilings using the same methods noted above for fixing to walls. Refer to below table for maximum fixing centres:

Species	Thickness	Across top of exposed rafters	Beneath Rafters or Joists
Western Red Cedar	9mm	600mm	450mm
	14mm	900mm	600mm
Tasmanian Oak	10mm	600mm	450mm
	12mm	600mm	450mm
Nordic Spruce	9mm	600mm	450mm

EXPANSION GAPS

Timber will naturally expand or contract in response to changes in the moisture content of its environment.

Some of this movement will be taken up in the joints between the boards but we recommend when installing wider lining boards (133mm cover and wider) that an expansion gap (min 10mm) be left at every 3.0m to allow for this movement. Expansion gaps can be covered with a suitable cover strip as shown below.



FINISHING RECOMMENDATIONS

Due to the high risk of adhesion when applying polyurethane finishes in situ it is recommended that pre-finished linings are purchased. If you wish to apply polyurethane finish on site it is highly recommended that such finishes are applied PRIOR to installation.

Particular attention should be accorded to the effective sealing of end grains of boards prior to installation. Any nicks or chips caused during subsequent installation can be lightly touched up in situ.

If finishes are applied after installation then take care to brush off excessive finish from tongues and in grooves to minimise the high risk of board to board bonding which can result in splitting the boards caused by the restraint of normal timber movement.

AVAILABILITY

Tilling Timber architectural wood products are available Australia wide through a network of expert resellers. Further details relating to grade and range are contained within the Tilling Timber product list and related literature at www.tilling.com.au.