Triboard®
Smooth, strong and versatile

High density (HD) Triboard has excellent resilience and impact resistance properties. It delivers greater stiffness for the same weight when compared to other reconstituted wood panels and is ideal for use as a wall lining. The smooth medium density fibre board surface offers an excellent paint finish and the assurance of superior screw holding ability.

Suggested use:
- General purpose wall and ceiling lining
- Staircases
- Bracing panels (10 and 15mm)
- Domestic, industrial and commercial shelving
- Substrate for veneers and laminates

Cost effective performance panelling for lightweight strength

Triboard Lite features a medium density surface with a lower density core, offering you a lightweight board that’s easy to handle, strong, durable and impact resistant. A great solution where thicker panels are required e.g Benchtops. Panels have a smooth finish for painting and overlaying. Get the best of both worlds with Triboard Lite.

Suggested use:
- Substrate for bench tops
- Solid core doors
- Substrate for veneers and laminates
- Shelving
- Work tops

Super low density strand core defined by a pinnable surface

Triboard Pinnable has many of the engineered features of Triboard and Triboard Lite but with an even lower density and therefore lighter weight. Although screw-holding is less than ordinary, this super low density board has the added and defining feature of being easily pinnable. The resulting product is a cost effective option for such uses as office dividers or floor to ceiling partitions systems.

Uses:
- Office dividers
- Screens
- De-mountable partitions

For uses not listed above, please contact The Laminex Group™
**Durability**
When stored, handled, installed and maintained in accordance with this document, Triboard HD, Triboard Lite and Triboard Pinnable will meet the provisions of NZBC B2.3.1(c) for five years (dependent on end use).

**Limitations**

**Triboard products:**
- Are intended for dry interior use only and must not be used as a substrate for external weathering materials - such as Nuralite, Butynol and other similar membrane materials
- Must not be used for a flush plaster stopped jointing system to be subsequently wallpapered or painted (exceptions to this only apply to proprietary glued drywall partition systems)
- Ceiling lining installations exposed on the upper face to elevated temperatures and low humidity conditions in roof spaces, must have insulation placed directly on the upper surface and have adequate provision for air change within the roof space
- All panels laid over exposed rafters/purlins, must be paint sealed on all edges and both faces after conditioning and prior to installation to reduce moisture and humidity uptake during construction and building occupation
- Must be paint or clear polyurethane finished prior to building occupancy
- The application of water based spray-on textured coatings must not be used
- Panels should not be subjected to conditions that will allow the moisture content to be above 16%.

**Triboard must not be used for:**
- Exterior use
- Areas subjected to repeated water spillage or constant dampness
- Marine uses
- Shower linings
- Saunas
- Window reveals
- Exterior door panels.

**Product Care and Handling**
- Due to the uptake of airborne moisture, permanent panel distortion may occur if Triboard is placed in close proximity to timber framework with a moisture content exceeding 18%
- Adequate pre-conditioning prior to installation is essential for satisfactory results, especially during wet seasons and high humidity. Panels should be filleted and conditioned for a minimum period of 48 hours prior to installation
- Attention to site storage, pre-conditioning at the point of installation and provision of specified joint clearances will reduce the effects of moisture uptake after installation and help to accommodate any panel movement.

**Storage**
- Correct storage procedures will eliminate sagging and permanent distortion of panels
- Panels must be stored away from heat and direct sunlight
- Panels must be flat and stacked on evenly spaced level bearers clear of dry ground, or a dry concrete surface
- Bearers must be of uniform thickness and must extend across the full width of the pack (Refer Figure 1)
- Strapping should be cut from packs as soon as practicable to avoid edge indentations
- Triboard panels must be protected from the weather. A breather type cover must be supported clear of the top and sides of the panels using battens to allow air to circulate freely (Refer Figure 1).

**Stock Rotation**
- The uptake of atmospheric moisture into board edges, which causes edge peaking, can be minimised by regular stock turn.

![Fig 1](image)

Stack panels using equally spaced bearers and, if necessary, a breather-type cover for weather protection (Note: provision for air circulation)

**Composition**
- Triboard products are composed of a core of engineered strands bonded with pMDI resin and MDF fibre surfaces bonded with melamine Urea Formaldehyde resin.

**Identification**
- Board size, classification and production batch number is denoted on the label on the side of the pack.

**Table 1 - Tolerances ex factory**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>±/ 2mm per metre with a 5mm maximum</td>
</tr>
<tr>
<td>Width</td>
<td>±/ 2mm per metre with a 5mm maximum</td>
</tr>
<tr>
<td>Thickness</td>
<td>±/ 0.2mm</td>
</tr>
<tr>
<td>Squareness</td>
<td>± 2mm per metre difference in the diagonals</td>
</tr>
</tbody>
</table>

**Heat**
- Precautions must be taken to ensure that Triboard products are kept well clear of nearby heat sources, such as free standing fireplaces, space heaters, ovens, cooking elements, etc. The structural life of Triboard may be impaired if the surface temperature exceeds 50 degrees C. Manufacturers of heat appliances must be consulted to ascertain the clearances or protection required to ensure 50 degrees C is not exceeded.

**Formaldehyde**
- Triboard products are manufactured to meet E0 formaldehyde emission levels when tested to AS/NZS 4266:16.

**Design considerations**

**Moisture**
- Triboard must not be exposed to water or high humidity situations such as shower enclosures, steam rooms and saunas (See Limitations). As most wood based products, Triboard is subject to minor dimensional variations due to changes in relative humidity, resulting in expansion and shrinkage.
- Triboard products are manufactured with adhesives which give improved durability and stability in areas of high surface humidity, but they are not water proof and must not be allowed to come into direct or prolonged contact with water. The panels must be finished with a protective coating system to prevent moisture penetration.
- If the moisture content of the Triboard panel is above 16% it is considered to be damp and the long-term durability of the panel cannot be guaranteed. Most coating systems such as polyurethane require the panel moisture content to be below 15% for best results.
Early Fire Hazard Properties

Triboard (Based on 15mm Triboard HD)
(AS/NZS 1530.3:1999)

<table>
<thead>
<tr>
<th>Table 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignitability Index</td>
<td>14</td>
</tr>
<tr>
<td>Spread of Flame Index</td>
<td>6</td>
</tr>
<tr>
<td>Heat Evolved Index</td>
<td>5</td>
</tr>
<tr>
<td>Smoke Developed Index</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: These values apply to uncoated Triboard and these properties will improve with the application of a fire retardant coating.

Paint Coatings

Proprietary flame retardant coating systems are available. Refer to your local paint supplier for further information.

Finishing

All surfaces will require sanding prior to finishing.

Stopping

All fastener holes should be filled with a solvent based wood dough or a non-shrinking plaster based filler. Tinting may be required for clear finishing.

Painting

Acrylic primer coatings will provide a more textured surface than alkyd (solvent) based paint systems. Triboard is a good substrate for most paint applications. Please follow paint manufacturers recommended system.

Clear Coatings

If clear finishing Triboard wall and ceiling linings, there may be visual aspects in the surface which are only highlighted once the coating has been applied. Please ensure the surface finish meets visual expectations. Polyurethane coatings will provide protection to wall and ceiling linings in normal domestic applications for up to 5 years provided they are properly applied and maintained.

Installation

Allow for the stud, purlin, rafter, beams etc, to accommodate a 2mm expansion gap at Triboard panel joints especially where large areas or long walls are to be covered. (refer Figure 3a). For negative detailing, allow 8mm gap on a pre-painted stud. Refer Figure 3b)

NOTE: Ensure sheets are pre-conditioned prior to being sealed.

Exposed beam ceilings

- Pre-condition all sheets, and then prime all surfaces and edges prior to fixing ceiling sheets
- Weather protection is essential to avoid exposure to inclement conditions during the construction period
- Where practicable, install exposed interior ceiling lining progressively with exterior roof covering. The preferred method of installation is to fix after the roof is in place
- Skillion roofs require special care. Maintain an air gap between the top of the insulation and underside of the roofing underlay, from the soffit to the ridge. This gap allows air circulation to regulate humidity and temperature.
Framing as per NZS 3604:1999

GkN strap
Non edge nail spacing
2x edge spacing, max 20x board thickness
Board on one face (not fully shown for clarity)

Edge nail spacing around opening and along adjacent nogs

Edge and end nail spacing

Element length 3
Element length 1
Element length 2

6kN tiedown to floor at ends of panel

NOTE
Temporary diagonal wall props during erection are optional

1000 min 300 min

Panel Thickness (mm)

Nail Size (mm)

Screw length (mm)

Fixing Centres Edges (mm)

Fixing Centres Intermediate (mm)

Fixing Centres Edge (mm)

9/10 40 x 2.5 30 150 200 10
12 40 x 2.5 30 150 200 10
15 40 x 2.5 40 150 200 10

Working Characteristics
Triboard can be easily machined, grooved and routed in any direction. To avoid break-outs use a fine toothed hand saw or circular saw adjusted to protrude just through the board surface and apply only nominal pressure when using power drills. Tungsten-tipped machine tools are recommended for volume production.

Fixing
- Panels can be fixed to timber or steel framing. When fixing to steel framing, 12 gauge self drilling screws can be used.

Fixing Schedule

Note: Screws are minimum 8 gauge. For the best results ensure hand and machine tools are sharp, and always use approved eye protection when machining Triboard.

Table 4

<table>
<thead>
<tr>
<th>Panel Thickness (mm)</th>
<th>Nail Size (mm)</th>
<th>Screw length (mm)</th>
<th>Fixing Centres Edges (mm)</th>
<th>Fixing Centres Intermediate (mm)</th>
<th>Fixing Centres Edge (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/10</td>
<td>40 x 2.5</td>
<td>30</td>
<td>150</td>
<td>200</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>40 x 2.5</td>
<td>30</td>
<td>150</td>
<td>200</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>40 x 2.5</td>
<td>40</td>
<td>150</td>
<td>200</td>
<td>10</td>
</tr>
</tbody>
</table>

*If using panels of a greater thickness, nail fastenings should be 3 times the thickness of the sheet.

Wall Bracing

Wall Bracing Values

Table 5

<table>
<thead>
<tr>
<th>Type of board</th>
<th>Minimum wall length (mm)</th>
<th>Nail spacing (mm)</th>
<th>Tiedown (kN)</th>
<th>BU1m wind</th>
<th>BU1m earthquake</th>
</tr>
</thead>
<tbody>
<tr>
<td>10mm Triboard</td>
<td>600</td>
<td>150</td>
<td>6</td>
<td>110</td>
<td>125</td>
</tr>
<tr>
<td>15mm Triboard</td>
<td>600</td>
<td>150</td>
<td>6</td>
<td>120</td>
<td>130</td>
</tr>
</tbody>
</table>
Health and Safety

Health and safety precautions must be taken when working with wood products.

- Exposure to wood and/or to formaldehyde may cause irritation to the eyes, respiratory system and skin, and may cause sensitisation resulting in asthma, and by skin contact resulting in dermatitis
- Wood dust is classified as a known carcinogen. Repeated inhalation of wood dust over many years may cause nasal cancer
- Formaldehyde is classified as a known carcinogen
- Storage areas containing large quantities of Triboard must be adequately ventilated
- Work areas must be well ventilated and kept clean. Sawing, sanding and machining equipment must be fitted with dust extractors to ensure that dust levels are kept within standards laid down by Worksafe Australia, Occupational health and Safety New Zealand, or the specific country of use. If not, a dust mask conforming with AS/NZS 1715 and AS/NZS 1716 and eye protection conforming with AS/NZS 1337 must be worn
- Offcuts, shavings and dust must be disposed of in a manner which avoids the generation of dust and in accordance with the requirements of local waste authorities
- In end use applications all product surfaces exposed to an occupied space must be sealed

For further information and safety data information, please phone The Laminex Group™ Customer Service Department.

Technical Support

As not all product use options can be described in this brochure, additional end use and specifying information is available as a complementary service. The information contained in this brochure must not be reproduced or published in whole or in part without prior consent of The Laminex Group™. The Laminex Group™ reserves the right to revise without notice any information contained in this brochure. Please contact The Laminex Group™ Customer Service Department to check the currency of information contained in this brochure, or visit the website.

Contact Details:

For more product information or order enquires please phone

The Laminex Group on 0800 303 606 to speak with a representative.

www.thelaminexgroup.co.nz