Triboard Building and Construction Product Information

Date of Issue 11/04/2013 : Reviewed 01/03/2022

APPLICATIONS AND LIMITATIONS

- **Wall and Ceiling Linings**
- **Partitions**

Triboard

- Is intended for dry interior use only.
- Care should be taken when using a flush plaster stopped jointing system that is subsequently wallpapered or painted. Fixing and Stopping should not occur until the board has conditioned to the local environment – see Design Considerations below (exceptions to this apply to proprietary glued drywall partition systems).
- Ceiling lining installations, exposed on the upper face to elevated temperatures and humid conditions in roof spaces, must have insulation placed directly on the upper surface and have adequate provision for air changes within the roof space.
- Panels laid over exposed rafters/purlins, must be sealed on all edges and both faces with a protective coating after conditioning and prior to installation, in order to reduce moisture and humidity uptake during construction and building occupation.
- Must be paint or clear polyurethane finished, or overlaid with vinyl or similar, prior to building occupancy.
- The application of water based spray-on textured coatings must not be used.

Triboard must not be used for:

- Exterior use (exposed to the weather)
- Areas subjected to repeated water spillage or constant dampness (unless protected by a suitable impervious coating system)
- Marine use.
- 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 (ideally 48 hours) and precise following of installation instructions is essential for satisfactory results, especially during wet seasons and high humidity.
- Attention to site storage, pre-conditioning at the point of installation and provision of specified joint clearances will reduce the effects of moisture up-take 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 stacked on at least 3 evenly spaced level bearers clear of dry ground, or a dry concrete floor.
- Bearers must be of uniform thickness and must extend across the full width of the pack.
- If panels must be stored outside, they should 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.
- Plastic strapping should be cut from packs as soon as practicable to avoid edge indentations.
  Stock Rotation
- The uptake of atmospheric moisture into board edges, which can cause edge peaking, can be minimised by regular stock rotation.

COMPOSITION

- Triboard is composed of engineered strands orientated in such a way as to maximise strength and durability. Triboard has an additional MDF fibre surface.

Identification

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

Formaldehyde

- Triboard is manufactured to meet or exceed the E zero formaldehyde potential requirement in accordance with AS/NZS 1859.1:2004 and AS/NZS 1859.2:2004
- During construction, and after close-in, emission levels can be further controlled by room ventilation and surface sealing.
- See the Triboard Material Safety Data Sheet (MSDS) for more detailed information.

DESIGN CONSIDERATIONS

Moisture

- Uncoated Triboard must not be exposed to water or high humidity situations such as shower enclo sures, steam rooms and saunas (See Limitations). As with most wood based products, Triboard and Strandboard are subject to minor dimensional variations due to changes in relative humidity, resulting in expansion and shrinkage.

- Triboard is 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 18% it is considered to be wet 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% at time of coating for best results.

Heat

- Precautions must be taken to ensure that Triboard is 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 50ºC. Manufacturers of heat appliances must be consulted to ascertain the clearances or protection required to ensure 50ºC is not exceeded.

Fire Properties

- Triboard has a Group Number Classification of 3, as determined in accordance with the New Zealand Building Code Verification Method C/VM2, Appendix A.

Note:

This classification applies to uncoated Triboard and may alter with the application of any finish applied to the surface.

INSTALLATION

Framework Setout

- Allow for studs, purlins, rafters, beams, etc. to accommodate a 2 to 3 mm expansion gap per 1.2m sheet at panel joints especially where large areas or long walls are to be covered. For negative detailing, allow an 8mm gap on a pre-painted stud.
- Alternatively, provide an 8 to 10mm clearance between sheet edges and fixed members such as beams and columns etc.

Exposed Beam Ceilings

- Pre-condition all panels, 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 linings progressively with the 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. The gap allows air circulation, to regulate humidity and temperature.

Fixing

- Installation must not begin until the building is closed in and weatherproof.
- When using 3600mm x 1200mm or 2400mm x 1200mm panels, allow a 3mm edge clearance.
- A minimum 3mm panel edge clearance is recommended for all sheet sizes during wet winter months or in extremely humid conditions.
- Board surfaces should be primed or clear sealed as soon as practical after fixing.
- Panels can be fixed to timber or steel framing. When fixing to steel framing, 12 gauge, self-tapping screws can be used.
- The moisture content of any timber framing must not exceed 18% at the time of installing the panels. Excess moisture content will result in timber shrinkage and may lead to possible “popping” of nail or screw heads.

Suggested Fixing Schedule

Panel Thickness (mm)	Nail Size (mm)	Screw length (mm)	Fixing Centres Edges (mm)	Fixing Centres Intermediate (mm)	From Panel Edge (mm)
9/10	40 x 2.5	30	150	300	10
12	45 x 2.5	30	150	300	10
15	45 x 2.5	40	150	300	10

Note: screws are 8 gauge for Timber framing.

The use of Power Driven brads and elastomeric adhesive is an alternative fixing method.

- For fixing of panels that are to be used as bracing panels, refer to separate Bracing Details sheet available from Juken New Zealand Ltd website www.jnl.co.nz/product/triboard
- For Information on Triboard TGV Panels, see separate “Triboard TGV Lining Panel FAQs” available from Juken New Zealand Ltd website www.jnl.co.nz/product/triboard-tgv

FINISHING

Stopping

- Fill fastening holes with non-shrinking plaster based stopping systems, or a solvent-based wood dough with tinting as required for clear-coated applications.

Clear Finishing

- For flooring overlays, polyurethane coatings should provide protection in normal residential applications for up to five years if properly applied and maintained. This does not apply to areas such as laundries, bathrooms, shower, changing rooms and toilets. The defined wet areas must be covered by an impervious surface finish system.

Paint Finishing

- Triboard can be finished using either solvent based or water based paints. In all instances, the paint manufacturer’s recommendations should be followed.
- Acrylic primer coatings will provide a more textured surface than solvent based paint systems.

Flame Retardant Paint Coatings

- Proprietary flame retardant coating systems (intumescent coatings) are available. Some of these are as follows:

Resene Fireguard
Firepro Firepro C646, Flamecoat Interior Acrylic Paint.
Benjamin Moore Flame Control

HEALTH AND SAFETY

- Material Safety Data Sheets for all Juken New Zealand Ltd Triboard products are available and should be consulted before using these products. Please contact Juken New Zealand Ltd or www.jnl.co.nz.

WORKING CHARACTERISTICS

Machining

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

Note: For best results always ensure that hand and machine tools are sharp, and always use approved eye protection when machining these products.

TECHNICAL SUPPORT

For advice on all technical matters please contact Juken New Zealand Ltd.
Juken New Zealand Ltd reserves the right to revise any information contained in this document without notice.

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