

TECHNICAL MANUAL

TAUCO Weatherboard System

NEW ZEALAND



Note: Always refer to this Technical Manual for correct installation procedures of Tauco

Weatherboard for use as an exterior cladding. For any intended use outside of this Technical Manual specification, you must refer directly to the Manufacturer/ Supplier of the product 'TAUCO Insulating WEATHERBOARD' – Tauco Building Products Limited for advice and written approval for 'Specific Design' prior to specification or installation of Tauco Weatherboard use, as an exterior cladding.

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Product Description, Features and Benefits

The Tauco Weatherboard system is an PU insulated aluminium profile weatherboard, colour coated to be used over timber framing or light gauge steel framing as an exterior cladding system, for use in wind zones up to and including **Extra High** as defined by NZS3604.

The system consists of RAB - minimum 10 – 50 mm XPS board glue fixed to the face of the exterior light gauge steel frame or as an option to timber frame wall with tape applied to the XPS board joints, once completed this is then followed by NZBC Compliant Cavity Batten and Building Wrap. Tauco Weatherboard can now be installed **horizontally or vertically** to the prepared external walls, starting with a starter strip screw fixed in place and aluminium fixtures screw fitted to the external and internal corners. Aluminium fixtures are used to complete the Tauco Weatherboard system to the Window and soffit areas.

Features

Tauco Weatherboard comes in colours made to order with PVDF coated or PVDF laminated film, with an aluminium exterior panel, PU foam interior, and an aluminium backing foil. The weatherboard holds a number of attributes including insulation resistance. It is supplied in the following board sizes and R-Values, shown below as an individual component and as a complete typical building system:

5.8m* x 410m x 16mm (R-value: 0.69) (0.5kg/m)

5.8m* x 410m x 30mm (R-value: 1.48) (0.83kg/m)

5.8m* x 410m x 50mm (R-value: 2.17) (1.16kg/m)

*Special Order lengths available in 3.8m and 5.8m, up to 12.0m based on order quantity.

Note: length may require more than one person to lift to avoid damage to product.

R VALUE COMPONENT TABLE*

	INTERIOR LINING	FRAMING	INSULATION	XPS	UNDERLAY	WEATHER BOARD
TIMBER FRAME	TYPICAL 9MM GIB	TYPICAL 90X45MM @600MM CNTRS	TYPICAL R2.2 INSULATION	10MM XPS	VALERON VORTEC DRAINAGE BARRIER	16MM WEATHERBOARD
	0.04	0.75	2.2	0.35		30MM WEATHERBOARD
				20MM XPS		50MM WEATHERBOARD
				0.70		2.17
STEEL FRAME	TYPICAL 9MM GIB	TYPICAL 90X45MM @600MM CNTRS	TYPICAL R2.2 INSULATION	10MM XPS	VALERON VORTEC DRAINAGE BARRIER	16MM WEATHERBOARD
	0.04	0.22	2.2	0.35		30MM WEATHERBOARD
				20MM XPS		50MM WEATHERBOARD
				0.70		2.17

*ADD THE REQUIRED VALUES ABOVE IN EITHER TIMBER OR STEEL FRAME TO GET TOTAL R VALUE OF WALL SYSTEM

Benefits

- Durable – low maintenance and fast installation
- NZBC performance inclusive of extra high wind zone
- System and Materials have been subjected to some of the world’s toughest testing
- NASH STANDARD - RESIDENTIAL AND LOW-RISE STEEL FRAMING, PART 1-3 compliant
- Superior weathertightness
- High impact resistance
- Free of harmful chemicals
- Reduce energy use

Product Scope of Use

The Tauco Weatherboard system has been designed for use as a cladding system within the following scope:

Attached directly to new timber frame or over a cavity system, designed and constructed in accordance with NZS 3604:2011 or NASH STANDARD - RESIDENTIAL AND LOW-RISE STEEL FRAMING, PART 1-3, designed and constructed in accordance with, situated in wind zones up and including very high, when incorporating the specified cavity system, and up to medium when direct fix, as per NZS 3604 Building Wind Zones, as well as a building height limitation of 10 metres.

Product Limitations

Tauco Weatherboards system cannot be installed in the vertical plain.

Thermal resistance depends on the overall mix of products of the entire wall construction and consequently calculations must be carried out to determine the entire wall R-value. The Tauco Weatherboard is supplied in maximum 12.0m lengths, walls greater than the maximum length will require a vertical control joint installed from top to bottom of the wall section.

All objects to be fixed to the face of the Tauco Weatherboard just be back-blocked to carry the weight of the fixture and its intended use. Maximum weight without back blocking is 1kg.

The Tauco Weatherboard system shall be installed only by trained and approved applicators.

Fixing Tables

FIXING SIZE TABLE - FIXING WEATHERBOARD

XPS WIDTH	WEATHERBOARD WIDTH	FIXING NEEDED
10MM	16MM	65X4.5MM STEEL WAFER SELF DRILLING SCREW (OR EQUIVALENT)
20MM	16MM	65X4.5MM STEEL WAFER SELF DRILLING SCREW (OR EQUIVALENT)
10MM	30MM	70X4.5MM STEEL WAFER SELF DRILLING SCREW (OR EQUIVALENT)
20MM	30MM	80X4.5MM STEEL WAFER SELF DRILLING SCREW (OR EQUIVALENT)
10MM	50MM	90X5.5MM STEEL WAFER SELF DRILLING SCREW (OR EQUIVALENT)
20MM	50MM	100X5.5MM STEEL WAFER SELF DRILLING SCREW (OR EQUIVALENT)

NZBC Relevant Performance Clauses

Structural Performance - Clause B1

The Tauco Weatherboard system when used in accordance with this CodeMark Certification and subjected to normal conditions of environment and use, is expected to tolerate wind forces up to and including Extra High as defined in NZS 3604:2011.

Durability - Clause B2

The Tauco Weatherboard system when used in accordance with this CodeMark Certification and subjected to normal conditions of environment is expected to have minimum 15-year durability as required by NZS3602 and according to the design option selected.

External Moisture - Clause E2

The Tauco Weatherboard system when used in accordance with this CodeMark Certification and subjected to normal conditions of environment and use, is expected to tolerate external moisture as defined in NZS 3604:2011.

Hazardous Building Materials - Clause F2

The Tauco Weatherboard system when installed according to the requirements of this CodeMark meets this requirement and will not present a health hazard to people using the building.

Thermal Performance - Clause H1

The Tauco Weatherboard system when installed according to the requirements of this CodeMark meets this requirement and gives an adequate R-value of the wall when used in conjunction with The R-value Component Table.

Engineer, Designer and Specification considerations

Designers are responsible for the framing design, and building contractors are responsible for the quality of construction of the framing.

The Tauco Weatherboard System is for use on new and existing timber framing to provide an exterior cladding system when the building is situated in a very high wind zone, when incorporating the specified cavity system, and up to medium wind zone when direct fix.

Specification

It is advised that the Architect/Designer or Specifier denotes on the building/design plans for the purpose of identifying product use as follows;

Tauco Weatherboard System BEAL Appraisal Certificate BTS2315

A note should also be included directing all parties to where information can be obtained from our website www.forestmountain.tech for **Technical Manual and other Information on Tauco Weatherboard System.**

Technical Drawings

See Appendix C for a list of Technical Drawings for Tauco Weatherboard system on Timber and Steel frame construction:

- Timber Frame Technical Drawings – Horizontal (48 pages)
- Timber Frame Technical Drawings – Vertical (48 pages)
- Steel Frame Technical Drawings – Horizontal (48 pages)
- Steel Frame Technical Drawings – Vertical (47 pages)

Product Application Requirements

Installation Procedures

Storage

Always lay Tauco Weatherboard on a solid surface and protect it from weather and dirt prior to and during installation.

Always protect the corners of Tauco Weatherboard prior to and during installation. **Do not** stack other materials on top of Tauco Weatherboard.

Pre-Installation

Installation of the Tauco Weatherboard and aluminium flashing must be completed by Tauco Approved and trained tradesmen who have experience in the installation of Tauco Weatherboard.

It is the responsibility of the weatherboard installer to inspect their work place prior to beginning the installation of Tauco Weatherboard to ensure the installed work will meet the owner / contractor's requirements.

Special Note: Notify owner / general contractor of any concerns prior to the start of Tauco Weatherboard installation.

The moisture content of any new timber framing must be no higher than 18%.

All edges must be supported by framing.

Cutting Tauco Weatherboard

You can easily cut Tauco Weatherboard with a keyhole saw, saber saw or power saw equipped with an Aluminium cutting blade.

Measure accurately and mark your cutting locations before cutting

Make circular cuts and irregular angle cuts using a metal cutting bit or a keyhole saw or a metal cutting blade saber saw.

To perform cut outs for electrical outlets, light receptacles, switches, etc., carefully measure and mark the location of the opening on the face of Tauco Weatherboard. Outline the opening

in pencil and cut it out with a keyhole saw or circle cutter equipped with metal cutting blade tooling. The hole must be accurately located and cut to size.

Position cutting station so that wind will blow dust/metal fillings away from the user or others in the working area and allow for ample dust dissipation.

Dust reducing circular saw equipped with appropriate metal cutting blade and vacuum extraction.

Always use correct tools when executing cutting operations.

Even though Tauco Weatherboard is a non-toxic building material always wear a dusk mask and safety glasses and follow MSDS Guidelines.

Never use a power saw indoors.

Never use a circular saw blade that is inappropriate for the specific operation being undertaken.

Never use a grinder or continuous rim diamond blade for cutting.

Never dry sweep – always vacuum dust and metal filling.

Always use a Circular drop saw fitted with aluminium cutting blade to cut Tauco Weatherboard

Tauco Weatherboard must be installed horizontally using screw fasteners, fixed at every stud/cavity batten intersection and 50mm in from corners, as per the example fixing detail below.

Weatherboard Installation on Timber or Light Gauge Steel Wall Frame

Step 1 - Frame check and Back-blocking

Check frame for straightness by using a 2 – 3 metre straight edge, both in the horizontal and vertical plain. If the wall frame is out of plumb more than 10mm or the horizontal alignment of the stud wall is misaligned, then corrective action to fix the issue is required. Inform the builder/project manager in writing that prior to commencing the installation of the weatherboard system that the wall must be straightened to within the correct tolerance. Also ensure that the correct set-out for the slab edge is correct (refer to DWG – 07) at the bottom junction where the wall and floor meet (this is also where the starter strip will be installed, when required).

Once this has been achieved, ensure that all back-blocking for any wall fixtures like pipe penetrations, Downpipes, light fittings, clotheslines, etc. are installed prior to the XPS board installation or prior to any internal lining installation.

Step 2 - Rigid Air Barrier (RAB) XPS Board

Note: Prior to installing the XPS (RAB), place a permanent marker of the centre point of each wall stud, at the top and bottom, as this will be required later to identify the stud position for the Tauco Weatherboard screw fixed position later when the Tauco Weatherboard is installed.

Note: RAB only required on Steel Frame – Optional: RAB can be used on Timber Frame

XPS board is screw or glue fixed to the exterior face of the wall stud; ensure that openings are cut out and that the boards butt joints are clean and tight. Once the XPS is installed apply the joint tape to all board joints.

Step 3 - Building Wrap & Cavity Battens

Weatherboard Installation on Timber Wall Framing:

NZBC Compliant building wrap tacked over timber framing as per supplier, all window/door openings tapes, joint tape, penetration tape/couplings are fixed and this completes the building wall wrap installation. Then NZBC Compliant cavity batten shall be installed according to the relevant manufacturer.

Weatherboard Installation on Light Gauge Steel Wall Framing:

NZBC Compliant building wrap is glue fixed onto the face of the XPS by applying a vertical glue strip of approximately 30mm wide every 600mm apart along the section of wall, starting from the left-hand wall corner and working across the wall to the right-hand corner or internal corner. Continue this process installing the wall wrap from the bottom first 1.2 metre height of wall and repeating the process again for the second and subsequent 1.2 metre section of wall wrap. Overlap the previous wall wrap by 50mm or more as per supplier, this is the junction between the previous installed wall wrap and the next section of wall wrap installation which is taped with NZBC Compliant flashing tape. All window/door openings tapes, joint tape, penetration tape/couplings are fixed and this completes the building wall wrap installation.

Then NZBC Compliant cavity batten shall be installed according to the relevant manufacturer's guidelines at stud centre.

Step 4 - Windows/Door openings

The windows and door openings can now be installed with NZBC Compliant flashing tape used (this should also include any guide for window or door measurement setback or set forward from the face of the stud wall as required for the Tauco Weatherboard (refer to DWG 11, 12, 13, 14).

Starter strip/Internal and external corner trim fixtures

Prior to the Tauco Weatherboard installation, the starter strip, external corner trim, soffit trim and internal corner trim are, screw fixed into place using a class 3 - 8g x 40mm self-drive screw at 50mm from the top and bottom edge and at 250mm spacings and 15mm in from the edge of the trim profile (refer to DWG 03, 04, 05)

Window and door opening head, jamb and sill trims are cut and installed ready for the Tauco Weatherboard installation (refer to DWG 11, 12, 13, 14).

Step 5 - Tauco Weatherboard Panel

Note: Refer back to your permanent top and bottom stud markers as per (Note in Step 1) of this installation and chalk-line or permanent marker with a ruler/straight edge onto the building wrap from point to point. You should now have a vertical line that will reference the centre wall stud position, so that you can screw fix your Tauco Weatherboard into position as required in this technical manual.

Measure and cut each section of Tauco Weatherboard to be installed from point to point and then deduct 8mm from this measurement. Remove the plastic face protection and ensure the plank/panel has no marking or damage before installing.

The first course of weatherboard will start from the bottom of the wall, fitting the Tauco Weatherboard into the starter strip first and ensure you have 4mm gap at either end of the Tauco Weatherboard, then screw fixing at the top of the weatherboard on the flange 5mm in from the top edge (see DWG 05) with a class 3 - 8g x 40mm self-drilling screw at every wall stud junction as marked on the building wrap.

Repeat this process for each length by clipping the bottom of the next plank/panel onto the already fixed Tauco Weatherboard, and then repeat the top fixing process as before. Continue the installation until you reach the soffit or last Tauco Weatherboard panel.

When a H section joiner piece is required due to the length of wall being greater than the length of the Tauco Weatherboard, then this will require a H section trim to be screw fixed using a class 3 – 8g x 40mm self – drilling screw at 50mm from the top and bottom edge and at 250mm spacings and 10mm in from the edge of the trim profile (refer to DWG 22) installed in the vertical position from top to bottom of the wall.

On completing all of the Tauco Weatherboard installation of the wall section, the female internal and external corner trim fittings can now be fitted into the male trim fitting, likewise for the soffit trim angles, this completes the trim fitting.

Maximum length/height of wall

There is No maximum length of wall restriction for the installation of the Tauco Weatherboard. Maximum Height is restricted to 10 metres from ground to the soffit wall junction as set out in the Building Code of New Zealand.

Opening (Windows and Doors)

Window and Door opening fixtures must be installed as per the suppliers/manufacturer Technical Manual and by Approved installers (refer to DWG 11,12,13,14,15,16,17,18,19).

Penetrations (Pipes and Electrical)

Pipes and electrical penetrations must be installed as per the design details set out in this Technical Manual (refer to DWG 25, 26).

Parapet

Treat parapet wall as the following:

Steel and Timber frame; Exterior face start Tauco Weatherboard from aluminium bottom starter piece (refer to DWG 07, 08), up to the top of the parapet wall full with the top and on the interior wall face start with the aluminium bottom starter piece (refer to DWG 23, 24).

Finish top of Parapet: ensure RAB and Building Wrap are installed to provide full weathertightness and install folded coloursteel/aluminium capping to suit wall width with minimum 150mm face cover over Tauco Weatherboard.

Component List

See Appendix A (DWG – 1) for both steel/timber frames Component/Accessory list

Accessories List

See Appendix A (DWG – 1) for both steel/timber frames Component/Accessory list

Workplace Health and Safety

All products must be stored inside, in a well ventilated area, up off concrete floors, kept dry, out of direct sunlight and away from freezing conditions.

Maintenance

Once the Tauco Weatherboard has been installed as per this technical manual and as required by the NZBC, regular (at least once per year) wash down of the Tauco Weatherboard wall areas is required (within 500m of coastal areas at least every 8 months).

Warranty

The Tauco Weatherboard carries a 15 Year warranty on the product against defects in material and colour coating. For a full copy of the warranty go to www.forestmountain.tech

Quality Management System

Tauco Building Products Limited ensures that the BPQP are managed to ensure that the Tauco Weatherboard will meet the Quality Assurance plan.

Index of Terms and Wording

New Zealand Building Code, is abbreviated to – NZBC

New Zealand Standard, is abbreviated to – NZS

Quality Assurance – QA

Building Product Quality Plan – BPQP

Manufacture Quality Plan – MQP

Onsite Requirements

Installer / Applicator (Approved Training and Register)

All trained and approved installers have undertaken a training program to ensure that the Tauco Weatherboard System will be installed as per the requirements of the current Tauco Technical Manual at the time of installation.

Taucu Building Products Limited will record and keep an up to date list of approved installers. To check please contact Taucu Building Products Limited via www.forestmountain.tech

See Appendix A for Taucu Weatherboard System Installer Training Program.

Checklist – Pre and Post Installation, and Final

Prior to the installation commencing, the installer of the Taucu Weatherboard System must complete the Pre-Installation Checklist. Any defects or issues relating to framing, windows and door opening's, back-blocks or other issues, must be corrected.

Photo documentation together with the Post/Final -Installation checklist must be completed, signed off by the appropriate person and a copy returned to Taucu Building Products Limited or Taucu for record keeping.

Failure to complete these checklist and copy returned will reduce the warranty to the minimum allowable by consumer law in the country of installation.

See Appendix B for Taucu Weatherboard System Inspection Pre Installation Checklist.

Appendix B

Tauco Weatherboard System Inspection Pre Installation Checklist



P a **TAUCO**

TAUCO Weatherboard System

25 July 2022 - Version 3.3

Certificate Holder:
Forest Mountain NZ Limited

Phone: +64 9 889 1253 **E-Mail:** info@forestmountain.tech

www.forestmountain.tech

Inspection Pre Installation Checklist

Date:

Client Name:

Contact No:

Job/Project Address:

Project Manager:

Contact No:

Installer Details:

Product Batch No:

Meter square: /m2

1. Provide existing plans and drawings of original building, go to step 2.
2. Does building owner experience water leaking anywhere in building?
 - a. If YES, and has been remedied and inspected, provide details of inspection with report, if acceptable, go to step 3
 - b. If YES, and has not been remedied and inspected, steps must be taken to fix the leaking issue and an adequate inspection must take place with a filing of the inspection report, then proceed to step 3
 - c. If NO, an inspection must be completed to assess any leaking by an approved person, and if any work is found, steps must be taken to fix the leaking issue then proceed to step 3
3. A plan of work needs to be created to incorporate all fields of work in the project (this may require drawings to a 'specific design'). Go to step 4.
4. A record must be kept of key installation and inspection procedures as per the Quality Plan (BPQP). Go to step 5.
5. Once all steps are complete, start installation of the Tauco Weatherboard System.

Project sign off

Date:

Project Manager:

Architect:

Home Owner:



TAUCO Identifier:
Forest Mountain NZ Limited

TAUCO Weatherboard System

25 July 2022 - Version 3.3

Inspection Post/Final Installation Checklist

Date:

Client Name:

Contact No:

Job/Project Address:

Builder/Project Manager:

Contact No:

Installer Details:

Product Batch No:

Meter square: /m2

All accessories are installed correctly:

Window trim Yes No , Door openings Yes No , Starter Track Yes No ,

Soffit angles Yes No , External corners Yes No , Internal corners Yes No ,

Vertical joints Yes No , Horizontal Joints Yes No , Meter Box Yes No

Overall wall section is correct and aligned:

North Wall Yes No , West Wall Yes No , East Wall Yes No ,

South Wall Yes No , Over roof wall area Yes No

Penetrations have flanges installed: Yes No

Photos of project: Yes (supplied as evidence) (minimum one photo per wall elevation)

Checklist was carried out by:

Date:

Signed by:

Job/Project is completed and all parties have signed off on Tauco Weatherboard installation:

Yes

Project sign off by:

Date:

Builder:

Architect:

Home Owner:

Appendix C

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25 July 2022 - Version 3.3

Certificate Holder:

Forest Mountain NZ Limited

Phone: +64 9 889 1253 E-Mail: info@forestmountain.tech

www.forestmountain.tech

NOTE: All drawings used here are with the 16mm Tauco Weatherboard, for other sizes of weatherboard please refer to the Fixing Table.

ALL DRAWINGS BELOW ARE FOR NEW ZEALAND BUILDINGS ONLY

- Timber Frame Technical Drawings – Horizontal (48 pages)
- Timber Frame Technical Drawings – Vertical (48 pages)
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- Steel Frame Technical Drawings – Vertical (47 pages)