

OTC Timber

– Since 1932 –

**General Information and Installation instructions for
OTC Timber Finger Joint LOSP H3.1 Primed Weatherboard.
(OTC Weatherboard)**

OTC Timber Installation Guides



<https://www.otctimber.co.nz/resources/weatherboard-installation-guides/>

Producer Statement

OTC Timber produce a range of Finger Joint H3.1 Primed Weatherboards that are fit for purpose and suitable under the New Zealand Building Code clause E2 External Moisture, for buildings that fall within the scope of NZS3604:2012 Timber Framed Buildings, and Acceptable Solutions E2/AS1.

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/e-moisture/e2-external-moisture/asvm/e2-external-moisture-3rd-edition-amendment-10.pdf>

New Zealand Building Code Compliant

OTC weatherboard profiles comply with NZS3617 and are intended for use within the scope and limitations outlined in E2/AS1, Section 9.4. We provide a range of standard details developed in alignment with the principles of E2/AS1. Please note that OTC Timber does not approve bespoke details. Any project-specific details remain the responsibility of the designer and must be considered as an alternative solution for assessment by the relevant regional council.

OTC Timber weatherboards comply with:

- NZS3617:1979 Specifications for profiles of weatherboards, fascia boards, and flooring - BRANZ Bulletin 411.
- AS/5068:2006 Timber Finger Joints in Structural Products.
- AS/5069:2006 Timber Finger Joints in Non-Structural Products.
- NZS3640:2003 Chemical Treatment of Timber.

Independently Audited:

During the manufacturing process OTC weatherboards are subjected to frequent quality checks to ensure compliance with all relevant standards. OTC Timber's manufacturing processes are independently audited by Grade Right against all relevant industry standards and in compliance with:

- *Grade Right Engineered Wood Products Audit Program* <https://www.otctimber.co.nz/wp-content/uploads/2023/07/GR-ENGINEERED-WOOD-2025.pdf> and *Treat Right Timber*
- *Treatment Audit Program.* <https://www.otctimber.co.nz/wp-content/uploads/2023/07/TR-TREATMENT-2025.pdf>

Building Regulations Act 1992

Timber cladding systems which include the supporting structure and moisture management, must meet the objectives, functional requirements and performance criteria of the following NZBC clauses.

- B1 Structure
- B2 Durability
- C Protection from Fire
- E2 External Moisture
- H1 Energy Efficiency
- Alternate Methods/Solutions
- Standards

There are nine compliance paths that may be used to demonstrate NZBC compliance for an alternative method, e.g., expert opinion (producer statement) and only one needs to comply.

Product Warranty

OTC Timber warrants these products against decay and insect attack for 15 years when installed and maintained as recommended by BRANZ <https://www.weathertight.org.nz/maintenance/> and in compliance with NZS3602:2003 Timber and wood-based products for use in buildings.

Renewable Resource - FSC No. NC-COC-004440

OTC Timber weatherboards are manufactured in New Zealand using plantation grown New Zealand Radiata Pine.

Forest Stewardship Council (FSC) Mixed Credit CoC certification is available on request.

<https://www.otctimber.co.nz/wp-content/uploads/2020/02/OTC-Timber-FSC-COC-certificate-19.pdf>

Features of OTC Timber Finger Joint LOSP H3.1 Primed Weatherboard.

Scope

E2/AS1 Risk Matrix calculates the weather tightness risk of a buildings design.

If the weather tightness risk score is higher than that shown below, a drained and ventilated cavity will be required in accordance with E2/AS1.

- Bevel back weather board when the risk score is higher than 12
- Vertical Shiplap weather board when the risk score is higher than 6
- Rusticated weather board when the risk score is higher than 6

E2/AS1 can't be used as a means of compliance for a building that scores 21 or more.

Kiln Dried and Heat Treated

Kiln dried to between 9-15% moisture content to improve the structural properties and stability of the timber.

Finger Jointed

The fibre selected for finger jointing blocks is sorted using colour cameras, lasers and X-ray to identify suitable wood. Alternatively solid timber grades to meet NZS3631:1988 may also be used.

Preservative Treatment

Once machined to its desired form OTC Weatherboard is treated using a Light Organic Solvent Preservative (Hazard class H3.1 LOSP) specifically designed for exterior applications to achieve the required minimum 15 year durability clause under NZS3602:2003 Table 3.

Architectural Primer

An Oil Based Alkyd architectural primer is factory coated in a measured and controlled environment at 35 microns Dry Film Thickness.

Storage - Keep Dry & Protect from Weather Until Used

OTC Weather boards are kiln dried. Timber is a hydroscopic substrate that will absorb and release moisture depending on the environment it is stored in.

It is essential that you store this product in doors on bearers raised off the ground until the product is sealed as specified below. Moisture can cause swelling between the finger joints and/or raised grain in the surface of the product.

PRIMER WILL NOT PROTECT AGAINST MOISTURE UPTAKE OR EXTREME WEATHER CONDITIONS.
PLEASE STORE INDOORS ON BEARERS AND OFF THE GROUND AND USE A MOISTURE RESISTANT GROUND SHEET.

If indoor storage is not possible the product must be protected from overhead conditions as well as moisture uptake from damp ground. Materials should have a minimum of 150mm ground clearance on evenly placed bearers. In addition to the factory wrap, a secondary site cover and ground cover should be used.

Handling

When transporting and handling OTC Weatherboard and accessories take extra care not to damage any exposed surfaces or cause any product loss. Always attempt to keep timber clear of contaminants or debris that may have an adverse effect on the finished appearance.

Minimise any unnecessary sagging or bending of boards that may cause isolated stress on joints.
OTC weatherboards must be installed by a Licensed Building Practitioner.

Health and Safety

When working with H3.1 LOSP-treated Radiata pine, use personal protective equipment, including gloves and goggles. Work in well-ventilated areas to minimize inhalation risk. Dispose of treated wood waste properly, and wash hands thoroughly after handling. Follow safety guidelines to ensure a secure working environment.

Disposal of waste

Dispose of waste from H3.1 LOSP-treated Radiata pine responsibly. Follow local regulations for treated wood disposal. Avoid burning or recycling with organic matter. Consider authorized waste facilities to ensure proper management and minimize environmental impact.

Wall Framing

Moisture content of timber framing must not exceed 20% and must be straight and stable at the time of fixing OTC weatherboard. If the framing is to wet problems may occur later due to excessive timber movement.

Horizontally fitted weatherboards must be fixed to a stud at maximum 600mm centres.
(NZS3604:2011 Figure 2)

Horizontal Joints must be directly over studs using a 45° angle cut. Remember to reprime cut ends and glue the joint before nailing/screwing. Square cuts or butt joints must be flashed.

Vertically fitted weatherboards must be fixed to a dwang/nog at maximum 480mm centres.
(NZS3604:2011 Figure 2 – E2/AS1 Table 24)

Vertical weatherboards must be one continuous length over a storey height.

Additional Recommendations for Rebated Weatherboard (Vertical Shiplap and Rusticated Weatherboards)

Please ensure that Vertical Shiplap and Rusticated Weatherboards are fitted with a gap of 2mm at the overlap between the boards. This gap is often referred to as an expansion gap.

When using Vertical Shiplap Weatherboard, it is important to observe the following guidelines to help get the best results out of the boards in particular to prevent moisture uptake through the ends of the boards and minimise end checking.

- a) Undercut the ends of the boards to provide a drip point for sheeted water.
- b) Coat all exposed cut ends of the boards the same as you would coat the surface of the board. (i.e., apply H3.1 treatment preservative, oil primer, undercoat, and two top coats of premium exterior acrylic paint to recommended film thickness.)
- c) Check all clearances between the ends of the boards and the ground and consider different ground surfaces require different clearances.
- d) Check all clearances between the ends of the boards and any openings including doors, windows, meter boxes etc, and ensure clearance between the board ends and any flashings to avoid trapping moisture.

Cavity Battens

Cavity Battens must comply with E2/AS1 and be as a minimum H3.1 treated according to NZS3640. Horizontal weather boards use a solid “vertical” H3.1 timber cavity batten 45x20mm. Vertical weather boards use a double castellated “horizontal” H3.1 timber cavity batten 45x20mm. Cavity construction and vermin proofing must comply to E2/AS1 and NZS4229 and BRANZ Bulletin Issue 673 Cavity Battens.

Fixings

Fixings driven through the cladding and the wall underlay into the framing/cavity batten must be in accordance with Table 24 of E2/AS1 and NZS3604.

Hand Nailing

Hand nailing is recommended. All board ends must be predrilled and hand nailed. Where fixings have the potential to split timber components, we recommended these be predrilled with a drill bit slightly smaller than the fixing and hand nailed.

Gun Nailing

Nail guns can be used but tool depth of drive must be set to avoid over driven nails.

Use a non-marking attachment to protect the board surface. For nail detail refer to the OTC selection charts for nail fixings

Paslode: https://www.otctimber.co.nz/wp-content/uploads/2020/12/FA-Brand-Partnership-Matrix-2020_OTC-8.pdf

Delfast: <https://www.otctimber.co.nz/wp-content/uploads/2022/10/2022OCT006-RDJ-Nail-Spec-Sheet-UPDATE-P2.pdf>

Ecko: <https://www.otctimber.co.nz/wp-content/uploads/2023/11/0.-OTC-Weatherboard-Jolt-Head-Coil-Nails.pdf>

Screw Fixing

Screw fixing is acceptable for OTC Weatherboards. Refer to the OTC selection chart for screw fixing

Ecko: <https://www.otctimber.co.nz/wp-content/uploads/2023/11/0.-OTC-Weatherboard-JoltScrew.pdf>

All fixings (nails and screws) must be clear of flashings and not penetrate under any circumstances.

All Fixings must be countersunk by 2mm and primed with a Premium Oil based primer and filled with an exterior quality wood filler.

Moisture Content (MC)

Board dimensions should always be checked. If larger than factory stated dimensions it is likely that moisture has been absorbed and will need to evaporate before fixing.

Ensure all cut ends and mitres are sealed with a premium oil-based primer end seal product to prevent the uptake of excessive moisture

DO NOT use any sealant or glues between board laps restricting natural movement.

Wall Underlays

Flexible wall underlays that meet the requirements of E2/AS1. Table 23 NZS2295 are acceptable.

This solution is only acceptable for wind zones up to and including Very High as defined in NZS3604. Extra High wind zones will require a rigid wall underlay.

Rigid wall underlays are to comply to E2/AS1 Table 23 NZS2295.

Flashing tape must be compatible with the selected wall underlay

Other Products

Installation and use of any other components not produced by OTC such as fillers, sealants, flashings, pipes, etc must be installed to the product instructions and meet the individual manufacturers specifications. These must be compliant with the NZBC. For Material selection and compatibility of materials refer to E2/AS1 Tables 20,21,22.

Painting Specifications:

H3.1 Treated and Primed Products

(Important Notice to Builders and Painters - Please Read)

OTC weatherboards should only be painted when dry and near equilibrium moisture content (MC<14%) as soon as possible after installation. Use a correctly calibrated moisture meter to measure the moisture content.

If OTC Timber weatherboards have been exposed to the weather for longer than 6 weeks or the primed surface is unsound follow steps 1, 2, 3, 4, 5 below and apply one full coat of Premium Oil Based primer undercoat.

OTC Timber recommends that the laps of the boards be painted with the finished paint colour prior to installation to minimise shrinkage lap marks.

Resin may bleed from this product in hot sheltered conditions or where it has been painted in dark colours. Adherence to the specifications below will help minimise the problem. We advise that this product **NOT** be painted in dark colours or high gloss finishes. Paint Light Reflective Value (LRV) should be 45 or greater.

- 1) Spot prime, fill and repair all nail holes and any other board imperfections.
- 2) H3.1 Treat and prime all cut ends, mitres and bare wood.
- 3) Ensure paint surfaces are clean and free of any contamination, e.g.: sawdust, dust, soil, grease and mildew.
- 4) Lightly sand surface where necessary to an even flat finish.
- 5) Apply a minimum of two full coats of premium exterior acrylic to the recommended film thickness. It is most important to read the paint manufacturer's instructions on the paint tin/bucket for recommended coverage.

OTC Timber recommends the additional application of one full coat of Premium Oil Based primer undercoat for increased durability. Total finished paint system film build should exceed 105 microns Dry Film Thickness.

Please refer to AS/NZS 2311:2017 Guide to Painting of Buildings and to OTC Timber Painting Specifications for H3.1 Treated and Primed Products for painting and handling requirements.

<https://www.otctimber.co.nz/wp-content/uploads/2021/03/PaintingSpecs.pdf>

OTC TIMBER CO. LTD. WILL NOT WARRANT ANY PRODUCT WHICH HAS NOT BEEN KEEP DRY OR WHICH HAS NOT BEEN PAINTED ACCORDING TO THE SPECIFICATIONS ABOVE.

Maintenance:

Most residential cladding systems require regular maintenance by the home owner. Washing down walls to remove any dirt or mould while keeping vegetation off surfaces will help keep the paint coating and timber in good condition.

The building (Residential Consumer Rights and Remedies) Regulations 2014 requires information about maintenance requirements, current insurance policies and guarantee/warranty details to be given to clients after construction work finishes.

Click on the following link to access the full OTC Timber Weatherboard Maintenance Guide:

<https://www.otctimber.co.nz/wp-content/uploads/2023/12/Maintenance-Guide.pdf>

Exterior Mouldings

OTC Timber provides a comprehensive selection of Weatherboard Accessories, specifically designed to seamlessly finish the installation of OTC Weatherboards. These accessories not only ensure weather tightness but also elevate the aesthetic appeal of your building. They are available in various sizes and finishes including:

- Scribes
- Eaves Moulds.
- Box Corners
- Cant Strip
- Bevelled Scotia
- Quadrants
- Scotia
- D Moulds.
- Angle Fillets
- Glazing Beads
- D4S Fillets
- Fascia Boards
- Grooved Cover Battens
- D4S Facing Boards
- TG&V Panelling's
- Sill Blocks.
- Exterior Jambs.
- Rustic plug

Notes

E2/AS1 provides Acceptable Solutions for the installation of aluminium windows and doors. Installation of timber windows and doors are outside of the scope of E2/AS1. Installation details must be consented as Alternative Solutions.

Options for demonstrating compliance paths include:

- Comparison with similar details in E2/AS1 (i.e., compliance with an Acceptable Solution)
- Evidence of satisfactory in-service performance in a similar situation (e.g., timber windows in the same building which perform satisfactorily).

For full Installation Guides including technical drawings go to the following links:

Bevelback Weatherboard – Cavity Fix – Installation Guide:

<https://www.otctimber.co.nz/wp-content/uploads/2023/12/OTC-Bevelback-Cavity-Fix.pdf>

Bevelback Weatherboard – Direct Fix – Installation Guide:

<https://www.otctimber.co.nz/wp-content/uploads/2023/12/OTC-Bevelback-Direct-Fix.pdf>

Vertical Shiplap Weatherboard – Cavity Fix – Installation Guide:

<https://www.otctimber.co.nz/wp-content/uploads/2023/12/OTC-Shiplap-Cavity-Fix.pdf>

Vertical Shiplap Weatherboard – Direct Fix – Installation Guide:

<https://www.otctimber.co.nz/wp-content/uploads/2023/12/OTC-Shiplap-Direct-Fix.pdf>

Rusticated Weatherboard – Cavity Fix – Installation Guide:

<https://www.otctimber.co.nz/wp-content/uploads/2023/12/OTC-Rusticated-Cavity-Fix.pdf>

Rusticated Weatherboard – Direct Fix – Installation Guide:

<https://www.otctimber.co.nz/wp-content/uploads/2023/12/OTC-Rusticated-Direct-Fix.pdf>



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