IQCLAD Vertical Cladding System

INSTALLATION GUIDE

Version 2.0 August 2024

General and product information

PURPOSE

This guide is for the installation of the IQCLAD Vertical Cladding System.

IMPORTANT DOCUMENTS

This guide must be read in conjunction with the following:

- IQCLAD Cladding System pass™
- IQCLAD Cladding System Specification guide
- IQCLAD Cladding System Care and Maintenance guide
- IQCLAD Cladding System warranty
- this document.

SKILLS REQUIRED

This guide is suitable for use by a person with basic carpentry skills. Where applicable, the person specifying or installing the IQCLAD Vertical Cladding System must be able to meet all RBW provisions.

FOR MORE HELP

Technical assistance is available at **www.iqclad.co.nz**.

While all reasonable efforts have been made to ensure the accuracy of information provided, this guide is a guide only. It may be subject to change.

FOR OUR WARRANTY

Refer to **www.iqclad.co.nz**.

PRODUCT DESCRIPTION

The IQCLAD Cladding System is an interlocking extruded aluminium weatherboard cladding system incorporating a drained and ventilated cavity.

The weatherboards are manufactured from 6063 or 6060 T5 aluminium and powder-coated with Interpon in accordance with AAMA 2603 or 2604. The IQCLAD Vertical Cladding System has the weatherboard profiles installed with a vertical orientation.

Weatherboards are available in three profiles:

- Kaweka,
- Remutaka, and
- Hunua.

The weatherboards are cut to job-specific lengths of up to 6500 mm maximum length. The boards are 230 mm in width with an effective cover of 190 to 200 mm and are 13 mm thick.

Weatherboards are interlocking and installed using concealed fixing brackets fixed to cavity battens. Ancillary components include flashings and trims.

SCOPE AND LIMITATIONS

For scope of use, limitations, conditions, and statement of building code compliance, refer to the IQCLAD Cladding System pass™ .

Pre-installation

HEALTH AND SAFETY

Take all necessary steps to ensure your safety and the safety of others:

- Ensure adequate ventilation or mechanical dust extraction when cutting or drilling.
- Ensure the weatherboards and trims are well supported when cutting and nailing.
- Wear appropriate safety equipment, clothing, footwear, and eye protection.
- Use all tools in accordance with relevant instruction manuals.
- Ensure all tooling is sharp.
- Plan and monitor a safe approach for working at height; select and use the right equipment. Do not step directly on the sheets between roof purlins. Always use stepping ladders or crawling boards supported by a minimum of three roof structural elements.
- Clear the work area of any obstruction before work starts.

For further information refer to:

- WorkSafe. [July 2018] Small Construction Sites, the Absolutely Essential Health and Safety Toolkit.
- WorkSafe. [December 2016] Health and Safety at Work, Quick Reference Guide.

These documents are available at **www.worksafe.govt.nz**.

HANDLING AND STORAGE

Handling

Take care when transporting, handling, and storing the IQCLAD Vertical Cladding System to avoid damaging the components.

Unload packs by hand and carry packs on edge. If unloading mechanically, ensure there is a minimum of two well-spaced supports or a pallet is used for support to avoid excessive bending or sagging. A spreader bar may be needed when using a crane or hiab.

Storage

Storage is critical. Failure to follow these requirements could result in the system, when installed, failing in performance or appearance.

Components must be stored in a dry, well-ventilated environment and out of direct sunlight.

Stack components horizontally on a flat, dry surface. Lay the components flat on a pallet or bearers positioned no more than 1 m apart and at least 150 mm off the ground with plastic underneath the bearers. Cover with a tarpaulin to ensure that the materials remain dry.

Ensure the IQCLAD weatherboard sharp ends and edges are protected while in storage. Use stiff cardboard or panel product.

TOOLS AND EQUIPMENT REQUIRED

Install the IQCLAD Vertical Cladding System using standard carpentry tools and equipment including the following:

- table saw with tungsten carbide bit specifically for cutting aluminium
- electric or cordless drills with torque settings
- masonry impact drill (subject to substrate)
- drop saw fitted with a tungsten carbide
- drills and hole saws suitable for aluminium
- jigsaw with metal cutting blade
- laser level.

Use tools in accordance with good trade practice and supplier's instructions.

Installation

STEP 1 **BUILDING CONSENT DOCUMENTATION**

Access and view building consent documentation.

STEP 2 **CONFIRM THE SCOPE**

Confirm the proposed use is within the scope and limitations of the pass™.

STEP 3 **CHECK RELATED BUILDING WORK**

Framing

Confirm that the primary structure:

- is timber or lightweight steel and
  - complies with the NZ Building Code and is designed in accordance with NZS 3604:2011 or NASH Standard Parts 1 and 2: 2019 ;
  - is specifically designed to NZS 3603:1993 or AS/NZS 1170:2002; or
  - where existing, is suitable for the intended building work
- is specifically designed where the site wind pressure is greater than 2.5 kPa
- has studs which must be at maximum 600 mm centres and nogs and dwangs at 400 mm to a maximum 800 mm centres.

Underlay

Confirm the underlay:

- Is a weathertight, flexible, or rigid underlay that meets the performance characteristics described in Table 23 of Acceptable Solution E2/AS1[1] at a minimum.
- Has flexible flashing tape that is compatible with the selected underlay installed in accordance with the manufacturer's recommendations.

Thermal break

Where framing is lightweight steel framing:

- Confirm a thermal break is installed with an R-value of not less than 0.25. Materials must be 12 mm S grade expanded polystyrene or 12 mm wood fibre insulating board in accordance with E3/AS1; or where an alternative product is installed, the thermal performance requirement must be met.

Substrate

Confirm the substrate is level in order to ensure installed cladding will be flat and true.

STEP 4 **INSTALL FLASHINGS THAT PROJECT FROM THE FACE OF THE BUILDING WRAP**

Install all flashings that project from the face of the building wrap.

This includes the inter-storey junction flashing, window, and door head flashings.

1 Where E2/AS1 is referred to, it is to be read as E2/AS1 or E2/AS4.

STEP 5 INSTALL THE IQBAT

Install the IQBAT horizontally at maximum 400 mm to 800 mm centres (refer to building consent) with fastenings of:

- 2 x stainless steel 10 G x 60 countersunk screws for fixing to timber or lightweight steel framing at maximum of 800 mm Centres, or
- 2 x stainless steel 10 G x 60 masonry countersunk screws for fixing to concrete footing and masonry, or
- 2.8 x 50 mm hot dip galvanised nails for fixing to timber floor structure.

STEP 6 INSTALL THE PERFORATED VERTICAL CHANNEL SUPPORT

Install the Perforated vertical channel. The trim must be installed:

- With a minimum drop below the floor slab or subfloor framing by 50 mm.
- Consistently level around the base of the building. Where floor levels vary (split), the location of the Perforated vertical channel should be set out ensuring that clearances and cover are maintained.
- Minimum ground level clearances are 100 mm from paved ground, 175 mm from ground, and 50 mm from a waterproof deck.

Ensure the IQBAT is fastened directly into studs and dwangs/nogs as follows:

- The IQBAT is fastened directly into either nogs or studs.
- Double IQBATs are installed wherever there is a flashing, windows, doors, corners, or head. For internal and external corners, install the double IQBATs as close as possible on each wall return.
- Where a horizontal joint is envisaged, double IQBAT is installed with a 10 mm gap between. Support framing is required for both IQBAT channels. Where possible, endeavour to place these joints in a discreet location.

STEP 7 INSTALL INNER SECTIONS OF FASTENING BRACKETS TO CORNERS, JOINTS, AND INTERNAL FLASHINGS FOR OPENINGS

Install the inner section of the dual-purpose corner bracket to all corners.

Install an internal joint bracket where vertical joints are to be made.

Install medium density, close-cell foam tape down the outer edges of the corner and joint brackets.

Install the internal window flashing down the vertical edge for the window and door openings.

Where parapet to wall junctions are specified, a saddle flashing in accordance with E2/AS1 must be installed.

STEP 8 INSTALL BOARDS

Install IQCLAD boards starting from either an internal or external corner.

Install the first IQCLAD board. Check the vertical level and ensure the board has clipped into the perforated vertical channel correctly.

Lock the edge of the board into position with a standard fastening bracket screw fixed using stainless steel 8 G x 16 self-tapping metal screws at each IQBAT.

Continue installing boards by inserting the interlocking tongue on an angle and rolling the board flat to the plane of the IQBAT. Secure with a standard fastening bracket.

Repeat for each module of boards

Note, there will be times when end cutting and board ripping will be required. Because the IQCLAD boards are a prefinished product, accuracy is essential. Tape the outer face of the cut line (masking tape) to limit scratching of the IQCLAD boards before cutting.

STEP 9 **INSTALL REMAINING TRIMS AND FLASHINGS**

Once all the weatherboards have been installed, the remaining trims and flashings can be installed.

Install:

- outer section of external and internal corner dual purpose corner brackets
- outer section of the joint brackets
- external window and door flashings.

STEP 10 **COMPLETION**

Check to ensure all components are installed correctly and in accordance with this document.

Ensure all care and maintenance information is available to the building owner.