



AccreditMark Appraisal Certificate

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Appraisal Number: AML0004NZ
Expiry date: 30 June 2021
Version: v1.2
Issue date: 19 June 2020
Updated: 17 July 2020

Kotahi Overclad Rainscreen System



1. Certificate holder

Kotahi Group Limited (KGL)

3 Lorien Place, East Tamaki
Auckland 2013, New Zealand
+64 9 889 8066
www.overclad.tech

2. Manufacturer

Kotahi Group Limited under manufacturing Licence

3. Product name

The Kotahi Overclad Rainscreen System

4. Description and intended use

4.1. Description

The Kotahi Overclad Rainscreen System is comprised of a core of low-combustibility rigid polyurethane (PU) insulating foam or non-combustible mineral wool, pre-finished PVDF coated aluminium weatherboard installed in a horizontal shiplap cladding format, over a fibre cement or drained cavity batten system fixed to an existing typical fibre-cement, EIFS or masonry type of exterior wall construction or cladding.

Prior to any site works commencing, a project is subjected to an inspection and evaluation process. On completion a 15-year warranty is issued from the manufacturer, together with a home warranty.

The Kotahi Overclad Rainscreen System is approved as a NZ Building Code (NZBC) alternative solution.



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- 4.2. Intended use
The system is a rainscreen installed over the exterior wall construction / cladding for single occupancy units (SOU), houses, or multi-unit dwellings, up to 10m in height.
- 4.3. Distribution and sales
Kotahi Group Limited under manufacturing licence, manages the Manufacturing Quality Plan (MQP) and supplies the Kotahi Overclad Rainscreen System. The New Zealand distributor is Forest Mountain Building Limited (FMBL), and the installer is an entity or Licenced Building Practitioner (LBP) approved by Forest Mountain Building Limited.

5. Components or accessories required for the product

- 5.1. Details of the system components and their use are provided in the Kotahi Overclad Rainscreen System Technical and Product Quality Plan (PQP) manuals.
- 5.2. Components used with the Kotahi Overclad Rainscreen System are:
- 5.2.1. Tauco Building Products Limited pre-finished insulating weatherboard
 - 5.2.2. Blue Barrier Waterproofing System
 - 5.2.3. Bostik Alpha Grip adhesive
 - 5.2.4. Drained cavity batten system, using either:
 - 5.2.4.1. Fibre cement sheet battens, 70-90 wide x 9mm thick, cut to size, for use as a drained cavity fixed to existing cladding, or;
 - 5.2.4.2. Tauco polyethylene drained cavity batten, 70-140 wide x 12-18mm thick
- 5.3. The following accessory components produced by Tauco Building Products Limited are used with the Kotahi Overclad Rainscreen System:
- 5.3.1. 10500 - 1mm, Extruded Aluminium Corner Flashing
 - 5.3.2. 10501 - 1mm Extruded Aluminium Corner Flashing
 - 5.3.3. 10502 - 1mm Extruded Aluminium Bottom Cover
 - 5.3.4. 10503 - 1mm Extruded Aluminium Bottom Cover
 - 5.3.5. 10504 - 1mm Extruded Aluminium Corner Angle - Male
 - 5.3.6. 10505 - 1mm Extruded Aluminium Corner Angle - Female
 - 5.3.7. 10506 - 1mm Extruded Aluminium Angle for Butt Joint - Female
 - 5.3.8. 10507 - 1mm Extruded Aluminium Angle for Butt Joint - Male
 - 5.3.9. 10508 - 1mm Extruded Aluminium Angle - Side Cover
 - 5.3.10. 10509 - 1mm Extruded Aluminium Soffit Angle - Male
 - 5.3.11. 10510 - 1mm Extruded Aluminium Soffit Angle - Female
 - 5.3.12. 10511 - 0.8mm stainless steel Tauco Fixing Clip for use in high wind areas
 - 5.3.13. 10512 - Tauco Facing System (Tauco Weatherboard)
 - 5.3.14. 10513 - Tauco Facing System (Timber)
 - 5.3.15. 10514 - Tauco Facing System (Aluminium)
 - 5.3.16. 105015 - 1mm Extruded Aluminium Cover to cover edges of rebates on windows and doors (EIFS)
 - 5.3.17. 105016 - 1mm Extruded Aluminium Angle - Sill Flashing (EIFS)



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- 5.4. Off the shelf items specified for use with the Kotahi Overclad Rainscreen System include:
- 5.4.1. Wafer head self-drilling screws
 - 5.4.2. Countersink self-drilling screws
 - 5.4.3. Stainless steel nails
 - 5.4.4. Aluminium blind rivets
 - 5.4.5. Plastic cavity closer

6. Scope of use

- 6.1. For exterior use as an over cladding system
- 6.2. Can be fixed over existing fibre cement sheet and EIFS claddings that have been designed and constructed in accordance with NZS 3604:2011 or NASH Standard for Residential and Low-rise Steel Framing Parts 1 and 2 for wind zones up to and including Extra High as per NZS 3604:2011
- 6.3. Allows for the reuse of existing window and door joinery

7. Limitations and conditions

- 7.1. Design, installation and components must be as specified in the technical manual (including maintenance) and the PQP manual
- 7.2. Must be installed by an LBP (Carpentry) approved by the distributor (FMBL)
- 7.3. Prior to installation of the Kotahi Overclad Rainscreen System, a pre-installation inspection must be carried out
- 7.4. Where the pre-installation inspection report indicates the need for remedial work, a suitably qualified expert will be required to produce a Remediation Plan. After satisfactory completion of the remediation work, installation of the Kotahi Overclad Rainscreen System can begin.
- 7.5. Walls greater than the maximum length of overclad weather boards will require a vertical control joint to be installed from top to bottom of the wall section.
- 7.6. The Kotahi Overclad Rainscreen System must be installed by trained installers using components approved by KGL and applied in accordance with the requirements and details found in the Technical Manual and PQP.
- 7.7. Any use of the Kotahi Overclad Rainscreen System that does not comply with the scope of use, limitations and conditions, or not in accordance with the Technical Manual is outside the scope of this certificate.

8. Building Code and performance requirements

- 8.1. Applicable code: NZBC
- 8.2. The Kotahi Overclad Rainscreen System complies with the following clauses and provisions of the NZBC:
 - 8.2.1. **B1 Structure**
 - B1.3.2 Low probability of causing loss of amenity
 - B1.3.3 (h) Wind loads up to, and including Extra High (EH), NZS3604:2011



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8.2.2. B2 Durability

- B2.3.1 (b) 15-year durability for weatherboards, accounting for the effects of temperature variations, wind forces and physical impacts on the surface
- B2.3.1 (c) 5-year durability for the protective coating, accounting for the effects of weathering and exposure to UV radiation

8.2.3. E2 External Moisture

- E2.3.2 Exterior walls prevent the penetration of water

8.2.4. F2 Hazardous Building Materials

- F2.3.1 The Kotahi Overclad Rainscreen System does not emit harmful quantities of gas, liquid or solid particles

8.2.5. H1 Energy Efficiency

The Kotahi Overclad Rainscreen System contributes to compliance with the following:

- H1.3.1 (a) Building envelope provides adequate thermal resistance
- H1.3.1 (b) Building envelope limits uncontrollable air flow

9. Assessment against performance requirements

Below is a summary of the sources of information and data used in the assessment of the product against the performance requirements of the NZBC.

9.1. In-service use with no reported failures:

- 9.1.1. Japan, Russia, Europe, USA: 15 years
- 9.1.2. New Zealand: since 2018

9.2. Laboratory tests commissioned by KGL:

- 9.2.1. TR160902-1 Flexural strength and modulus test
- 9.2.2. TR170717-1 Fixing screw pull through test
- 9.2.3. TR171117-2 Fixing screw pull through test
- 9.2.4. TR180228-1 Fixing screw pull through test
- 9.2.5. TR180421-1 Negative wind load properties v1
- 9.2.6. TR181110-1 Negative wind load properties v2
- 9.2.7. TR160613-1 Thermal conductivity
- 9.2.8. TR170707-1 Weather tightness test
- 9.2.9. TR190403-1 Water resistance, AS/NZS4548.5

9.3. Technical information provided by KGL:

- 9.3.1. D3020-MSDS V1 18 Nov 2019
- 9.3.2. D3020-TDS Issued May 2107
- 9.3.3. D3020 brochure Printed Feb 2014
- 9.3.4. Aluminium Foil - MSDS Issued March 2017
- 9.3.5. Aluminium Sheet - MSDS Undated 11 pages
- 9.3.6. Test report, National Center of Testing Techniques for Building materials, WT2020B03D00004



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- 9.4. Peer review/s and or expert opinions:
The appraisal application information supplied by KGL, and the content of the appraisal certificate, has been reviewed and approved by David Cunningham, Unrestricted Building Certifier (New Zealand).
- 9.5. Previous product certifications or assessments:
BCS169918-CMNZ Kotahi Overclad Weatherboard System, CodeMark Certificate of Conformity approved by JAS-ANZ and MBIE in 2018.

10. Physical characteristics

- 10.1. Description
10.1.1. A lightweight weatherboard made up of a folded 0.5mm thick aluminium exterior protected by a PVDF coating with a rigid PU insulating foam or mineral wool inner core, and aluminium backing foil.
- 10.2. Colour
10.2.1. Any choice from the ColorCote® colour range
- 10.3. Dimensions
10.3.1. Length 5.85m (3.6 to 12m available on request)
10.3.2. Width 410mm
10.3.3. Coverage 385mm
10.3.4. Thickness 16mm (30mm and 50mm available on request)
- 10.4. Unit weight
10.4.1. 0.5kg/linear metre (16mm thickness)
- 10.5. Exterior surface
10.5.1. Smooth, with a dimpled wood grain effect
- 10.6. Exterior protective coating
10.6.1. Interpon multi-layered powder coating system (PVDF)
- 10.7. Thermal performance
10.7.1. R-value (28mm thick) 0.87 (m²K/W)
- 10.8. Combustibility
10.8.1. Fire reaction classification: C - s3 d0, EN 13501-1:2007

11. Structural characteristics

Note: this is presented as general information and is not to be used for design purposes. Detailed design information is provided in the Technical Manual.

- 11.1. Fixing spacing
400 to 600mm horizontal centres depending on the wind zone and location on the building
- 11.2. Battens
11.2.1. 9mm fibre cement sheet, 70-90mm wide;
11.2.2. 12-18mm thick Tauco polyethylene drained cavity batten, 70 - 140mm wide



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- 11.3. Wind capacity
Up to Extra High, NZS3604:2011. Fixing details for various wind zones and locations on the building are in the Technical Manual
- 11.4. Bracing capacity
Not applicable.
- 11.5. Fasteners
 - 11.5.1. 30 x 4.5mm Wafer head self-drilling screws
 - 11.5.2. 40 x 4.5 countersink self-drilling screws
 - 11.5.3. 75-90 x 3.15mm stainless steel nails
 - 11.5.4. Aluminium blind rivets
- 11.6. Fire resistance
 - 11.6.1. Not categorised with a group number
 - 11.6.2. Not assessed for Fire Resistance Rating (FRR)

12. Technical and quality plan documentation

- 12.1. Website
www.overclad.tech (KGL website) provides links to contact, technical, product support and warranty information
- 12.2. Technical manual
The Technical Manual (Technical Manual Kotahi Overclad Rainscreen System) can be accessed on the KGL website and sets out the design, installation details, warranty and maintenance requirements.
 - 12.2.1. The current version of the Technical Manual is Feb 2020, Version1.0 - Part 1
- 12.3. Kotahi Overclad Rainscreen System Pre- and Post-installation Checklist
 - 12.3.1. The current version of the Pre- and Post-installation Checklist is 1 Feb 2020, Version1.0
- 12.4. KGL is responsible for keeping all technical Information up to date and notifying AccreditMark Limited of any changes.
- 12.5. Technical data sheets (TDS)
 - 12.5.1. Technical data is included on the KGL website and in the Technical Manual
- 12.6. Safety Data Sheets (SDS)
 - 12.6.1. Safety information is available on the KGL website and in the Technical Manual
- 12.7. KGL Product Quality Plan
 - 12.7.1. The current version of the Kotahi Overclad Rainscreen System PQP is 20/02/2020, Version 2.0
- 12.8. Manufacturing Quality Plan
 - 12.8.1. The current version of the Kotahi Overclad Rainscreen System MQP is November 2019, Version 1.0
- 12.9. Warranty information and conditions of warranty
 - 12.9.1. This information is on KGL website and in the KGL Technical Manual.



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13. Other considerations

- 13.1. Warehousing, ordering and despatch
Kotahi Overclad Rainscreen System components are stored at a central warehouse. Projects are assessed and pre-approved by KGL, orders are verified prior to packaging and despatch to the installer or site.
- 13.2. Packaging
The Kotahi Overclad Rainscreen System components for each project are loaded onto pallets for transport and protected with plastic wrapping.
- 13.3. Delivery
Identifying product codes are included with each delivery packing slip.
- 13.4. Handling
Kotahi Overclad Rainscreen System components are transported to the installer or site on a truck, trailer or utility vehicle. Pallets can be unloaded using suitable lifting equipment, or broken down manually, if necessary.
Care must be taken to avoid damage to the boards when handled for transport and on site.
- 13.5. Storage on site:
Kotahi Overclad Rainscreen System components should be stored flat on site and protected from the weather prior to installation.
- 13.6. Maintenance
After installation of the Kotahi Overclad Rainscreen System in accordance with the technical manual and NZBC, regular (at least once per year) wash down of the Overclad Rainscreen System is required.
Within 500m of the coast, wash down should be carried out at least every 8 months
- 13.7. Health and safety
The Kotahi Overclad Rainscreen System components are classified as non-hazardous, however, personal safety equipment (such as gloves, eye and hearing protection) should be used when cutting or handling components.
- 13.8. Clean up and waste management
Waste components, materials, empty containers and contaminants must be disposed of in accordance with local and government regulations.

14. Conditions of certification

- 14.1. This Appraisal:
 - 14.1.1. Relates only to the Kotahi Overclad Rainscreen System.
 - 14.1.2. Must be read, considered and used together with the technical documentation supplied by Kotahi Group Limited.
 - 14.1.3. Does not address any legislation, regulations, codes or standards not mentioned herein.
 - 14.1.4. Is revalidated annually by AccreditMark Limited.
 - 14.1.5. Is copyright of AccreditMark Limited.



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- 14.2. AccreditMark Limited makes no warranty or representation as to:
- 14.2.1. The nature of examples, or batches of, or individual installations of Kotahi Overclad Rainscreen System including methods and workmanship.
 - 14.2.2. The presence or absence of any patent or similar rights subsisting in the product or any other product.
 - 14.2.3. The performance of any paint coating system used with Kotahi Overclad Rainscreen System.
 - 14.2.4. Any guarantee or warranty offered by Kotahi Group Limited.
- 14.3. AccreditMark Limited's assessment of the Kotahi Overclad Rainscreen System is based on the technical evidence and documentation available at the time of assessment. If the technical evidence and or documentation is changed or updated in the future, the validity of this appraisal certificate will be re-assessed.

15. Kotahi Group Limited's responsibilities

- 15.1. Kotahi Group Limited must:
- 15.1.1. Notify AccreditMark Limited of any changes to:
 - Their contact or ownership details;
 - Kotahi Overclad Rainscreen System product details, specifications, technical information; installation methodology, components, PQP and marketing information;
 - The Kotahi Overclad Rainscreen System manufacturing process;
 - The Kotahi Overclad Rainscreen System MQP.
 - 15.1.2. Carry out periodic quality control and conformity tests as requested by AccreditMark Limited.
 - 15.1.3. Keep the Kotahi Overclad Rainscreen System Technical Manual up to date.
 - 15.1.4. Ensure updates and or changes to the Kotahi Overclad Rainscreen System Technical Manual are approved by AML prior to public release.
 - 15.1.5. Ensure the latest version of the Kotahi Overclad Rainscreen System Technical Manual is used by staff and installers.
 - 15.1.6. Comply with AccreditMark Limited's Terms and Conditions.
- 15.2. To maintain validity of their certificate, Kotahi Group Limited is subject to annual audits and surveillance by AccreditMark Limited of:
- 15.2.1. A building site where the Kotahi Overclad Rainscreen System is being installed.
 - 15.2.2. The Kotahi Overclad Rainscreen System Technical Manual.
 - 15.2.3. The Kotahi Overclad Rainscreen System PQP and MQP.



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16. For AccreditMark Limited

16.1. Signed:

Greg Richardson, BE (Hons)
Director and Certification Manager

David Cunningham
Unrestricted Building Certifier

16.2. Date of issue: v1.2, 17 July 2020