



Product Technical Statement

ALICLAD MAX Aluminium Cladding

Version Details: 011024

Version: V1 – 01102024

Original Issue Date: 01 October 2024

Version Date: 01/11/2024

**The Building Agency
Australia**

Queensland, Australia

www.tbagency.com.au

Product Technical Statement

This Product Technical Statement has been produced with the understanding that the product will be utilised in accordance with the manufacturer's details in the application described below.

Description of product: The AliClad Max Aluminium Cladding System is supplied for use as an external cladding system over a drained and ventilated cavity or as a rainscreen.

Type and/or use of product: The AliClad Max Aluminium Cladding System is an extruded aluminium prefinished weatherboard cladding system. The weatherboards are manufactured from 6063-T6 aluminium and powder coated with polyester and epoxy coating to a minimum film finish of 70 microns.

The AliClad Max Aluminium Cladding System is a solid aluminium incorporating a hidden fixing system, and a two-face extruded flashing system. AliClad Max Aluminium Cladding System can be used on all Class 1-10 buildings (Volume 1 & Volume 2 of the BCA).

The weatherboards are 2.2 mm thick (13-15kg/m²) and available in three profiles:

- V Groove V136 & V200 (installed horizontally or vertically.)
- S Groove S150, S200 (installed horizontally or vertically).
- Shadow Groove S200-125/75 (installed horizontally or vertically).

General dimensions: Length: 5800 mm.

Typical product installation: AliClad Max Aluminium Cladding System features a hidden fixing method with a two-face extruded flashing system that can be installed on either aluminium Alpha Rail Battens or Treated Timber Battens (to state requirements) to maximise cavity ventilation and drainage.

Note: If designed, installed and maintained in accordance with all The Building Agency requirements, the AliClad Max Aluminium Cladding System will comply with or contribute to compliance with the following performance claims.



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The designer and/or certified installer must ensure AliClad Aluminium Cladding System is used as part of a compliant wall system, with all components complying with the Deemed-to-Satisfy provisions of the relevant NCC or approved as part of a performance solution. Building designers are responsible for verifying the performance of the window joinery installation details that comply with AS2047.

The AliClad Max Aluminium Cladding System has been tested in accordance with BR135, and BS 8414-1 Fire Performance of External Cladding Systems refer BRANZ Test Report FF13923-02-01. If the project requires this specification, then the design of the external wall must be in accordance with the BR 135, and BS8414-1 tested assembly and/or reviewed by a qualified person(s).

Supporting Information: When specifying or installing any of The Building Agency products, please ensure that you have all the current literature. If you're not sure or need more information, visit <https://tbagency.com.au/> or email enquiries@tbagency.com.au

Complies with the following BCA Provisions and State or Territory Variation(s):

Performance Requirement(s):

Volume One

- B1P1 Structural Provisions.
- B1P2 Structural Provisions.
- F3P1 Damp and Weatherproofing.

Volume Two

- H1P1 Structural stability and resistance to actions.
- H2P2 Weatherproofing.

Deemed-to-Satisfy Provision(s):

Volume One

- B1D2 Structure – Resistance to actions.
- B1D4 (e) Structural resistance.
- C2D10 (6)(e) Non-Combustible material.



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Volume Two

- H2.2.4 (k) Structural Resistance.
- H3D2 (1)(e) Fire hazard properties and non-combustible building elements.

State or Territory Variation(s):

Volume One

- NT B1D4 (e) Structural resistance.
- QLD B1D4 (e) Structural resistance.
- WA B1D4 (e) Structural resistance.

Volume Two

- HP WA 2.2.4 (k) Determination of structure resistance of materials and forms of construction.

Limitations and Conditions:

Volume 1 - B1P1 (2) (e) (f) & Volume 2 - H1P1 (2) (e) (f) Building Classification(s) 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10

- Snow, liquid pressure are excluded. Seismic Test was conducted in the AS/NZ4284 Test (refer Compliance Documentation).

Volume 1 - B1P4 & Volume 2 - H2P2 - Building Classification(s) 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10

- Compliance for flood hazard areas is excluded.

Volume 1-F3P1 & Volume 2 – H2P2 -Building Classification 1,2,3,4,5,6,7,8 9 & 10

AliClad Max Aluminium Cladding System external walls must be constructed using either a pliable building membrane (flexible wall wrap) or a rigid air barrier as a weather-resistant barrier, compliant with BCA 2022 Volume 1 – F8D3. These solutions are considered to remain weatherproof, subject to the following conditions:

- Flexible Wall Wrap or rigid Air Barrier present a sealed Air & Water barrier for the purposes of weatherproofing, and
- Where the wind zone exceeds 1.5 kPa, a rigid underlay must be installed.



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- Where the wind design pressure exceeds 2.5 kPa, specific design and detailing for structure and weathertightness is required. Structural test at ULS state pressure has been conducted on AliClad Max ± 3.5 kPa and ± 5.6 kPa, and on inspection, there was no visible dislodgement of weatherboards, trims, or accessories. There was no visible failure of fixings, breakage of cladding or permanent distortion of the cladding following the ULS pressure test.
- External wall elements must withstand the project's ULS wind pressure, with stud and cavity framing deflection under SLS wind pressure limited to Span/250 and includes only windows that comply with AS2047
- The wall system design and installation shall comply with the AliClad Max Aluminium Cladding System Technical Literature or designed by a qualified person(s).

Volume 1-B1D4(e) & Housing Provisions – 2.2.4 (k) Building Classification(s) 1,2,3,4,5,6,7,8,9 & 10

The AliClad Max Aluminium Cladding System installed in Vertical & Horizontal orientation has been tested in accordance with AS/NZS4284:2008 Testing of Building Facades (refer test report no 22-07a Facadelab).

Summary of the test results.

- Serviceability Limit State (SLS) deflection test – Complies with deflection requirements at ± 2.5 kPa
- Air Infiltration Test – complies with the requirements at ± 150 Pa
- Static Water Penetration Test – complies with requirements 375 to 1.5 kPa Cyclic Water Test.
- Seismic Testing at Serviceability Limit State – Complies with requirements at ± 10 mm in-plane deflection, and subsequent cyclic water test.
- Pressure test Ultimate Limit State (ULS) – complies with the requirements at ± 3.5 kPa and ± 5.5 kPa.
- Seismic Test at Ultimate Limit State (ULS) – complies with requirements at ± 60 mm and beyond, to ± 70 mm in-plane deflection.
- Supplementary Ultimate Limit State (ULS) Seismic Wet Wall Water Penetration Test – Controlled water noted with 50 Pa pressure across wet wall

Volume 1 – C2D10 & Volume 2 – H3D2 Building Classification 1,2,3,4,5,6,7,8,9 & 10

Components and accessories used in the AliClad Aluminium Cladding System must align with those specified in the “System Components” section of the technical literature. Substitutions may be permitted; however, any alternative components or accessories must meet the same general performance specifications to maintain the validity of this Product Technical Statement.

Volume 1 – C2D10 (1) Building Classification 2,3,4,5,6,7,8,9 & 10

In buildings of Type A or B construction, all external walls, common walls, and fire-resisting non-loadbearing internal walls must be constructed from non-combustible materials.



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Volume 1 – C2D10 (6) & Volume 2 – H3D2 (2) Building Classification 1,2,3,4,5,6,7,8,9 & 10

For external wall applications, pliable building membranes or “sarking-type materials” must not exceed 1mm in thickness and must have a flammability index of no greater than 5. Rigid air barriers must be non-combustible and comply with C2D10(6)(f).

Compliance Documentation & Sources of Information:

- AS/NZS 4284:2008 Testing of building facades – refer report FacadeLab no 22-07a.
- BS 8414-2:2015+A1:2017 BR 135 Third edition Annex B 2013 – refer report BRANZ no FF13923-02-1-C1.
- ISO 5660.1-2015 Method of test for heat and smoke release rates – refer report AWTA Product Testing (Victoria) no 22-000683.
- AliClad Span Tables – Northerly Consultants 18th January 2024.
- AS/NZS1530.3 - Methods for Fire Tests on Building Materials - Metwood Sublimation – Refer report AWTA product testing no 20-006280.

Sources of Information:

- Dulux Care and Maintenance of Powder Coated Surfaces refer <https://duluxpowders.com.au/wp-content/uploads/2018/03/Dulux-Powders-Care-and-Maintenance-Tech-Advice-Brochure-0218.pdf>
- Interpon Powder Coatings: Care and Maintenance refer <https://duluxpowders.com.au/wp-content/uploads/2018/03/Dulux-Powders-Care-and-Maintenance-Tech-Advice-Brochure-0218.pdf>
- Metwood Woodgrain & special finishes Guide to Care & Maintenance <https://www.powdercoating.co.nz/metwood/>
- Metwood Technical Information <https://www.powdercoating.co.nz/metwood/>