# Product Technical Statement

## ALICLAD

## Aluminium

## CLADDING

## &

## SOFFITS

**Version Details:**

**Version: V1 –01112024**

**Original Issue Date: 1st November 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 Aluminium Cladding and Soffit System is designed for use as an external cladding or soffit system. When used as cladding, it must be installed over a drained and ventilated cavity or as a rainscreen.

**Type and/or use of product:** The AliClad Aluminium Cladding and Soffit System is made from extruded solid aluminium and comes prefinished. The cladding and soffit boards are manufactured from 6063-T6 aluminium and are powder-coated with a polyester and epoxy coating, ensuring a minimum film thickness of 70 microns.

Both the Cladding and Soffit boards are 2.2 mm thick and available in three profiles:

- Square Groove S170 Wall and Soffit Lining – 170mm Coverage (7.8kg/m2).
- Square Groove S085 Wall and Soffit Lining – 170mm Coverage (8kg/m2).
- Vee Groove V085 Wall and Soffit Lining – 170mm Effective Coverage (7.8kg/m2).

**General dimensions:** Length 5800 mm.

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

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

The AliClad Aluminium Cladding & Soffit System was tested in accordance with AS4284:2008 'testing of building facades" refer report Shelby Wright Test Labs no SWTL-R0061, the cladding was installed vertically.

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The designer and/or certified installer must ensure AliClad Aluminium Cladding & Soffit 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.

**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.

**Volume Two**

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

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**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.

**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 Aluminium Cladding and Soffit 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 Warp 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.
- Where the wind design pressure exceeds 2.5 kPa, specific design and detailing for structure and weathertightness is required.
- 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 Aluminium Cladding & Soffit System Technical Literature or designed by a qualified person(s).

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**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 Aluminium Cladding & Soffit System installed in Vertical & Horizontal orientation has been tested in accordance with AS/NZS4284:2008 Testing of Building Facades (refer test report no SWTL R0061 Shelby Wright Test Labs).

**Summary of the test results.**

- Serviceability Limit State (SLS) ±1.5kPa (structural test at serviceability state)- PASS - no damage noted.
- Ultimate Limit State (ULS) – ±2.5 kPa (strength test at ultimate limit state) – PASS.

Note : Supporting structures and connections, including stud frames and sub-framing members, must be designed and specified to withstand project loads. These loads include, but are not limited to, Ultimate Limit State (ULS) and Serviceability Limit State (SLS) wind pressures.

**Volume 1 -C2D10 & Volume 2 – H3D2 – Building Classification(s) 1,2,3,4,5,6,7,8,9 & 10**
This Product Technical Statement is based on the system being installed using the components and accessories specified in the 'System Components' section of the AliClad Aluminium Cladding & Soffit System technical literature. Substituting these components or accessories may be permitted; however, the substituted items must maintain the general performance specifications for this Product Technical Statement to remain valid.

**Volume 1 – CSD10(1) – Building Classification(s) 2,3,4,5,6,7,8 & 9**
In a building classified as Type A or B construction, all construction elements and their components must be non-combustible for external walls, common walls, and non-loadbearing internal walls that are required to be fire-resistant.

**Volume 1 – C2D10 (6) – Building Classification(s) 1,2,3,4,5,6,7,8,9 & 10**
In external wall applications, pliable building membranes or “sarking-type materials” must have a thickness of no more than 1mm and a Flammability Index not exceeding 5. Rigid air barriers must be non-combustible and remain in compliance with C2D10 (6)(f).

The supporting structures including stud frame & cavity sub framing, plus internal linings shall be designed & specified by a suitably qualified design professional in accordance with manufacturer guidelines and installed by suitably qualified and trained building professionals, in accordance with the relevant AliClad Aluminium Cladding & Soffit System technical literature refer www.tbagency.com.au

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**Compliance Documentation & Sources of Information:**

- AS/NZS 4284:2008 Testing of building facades – refer report SWTL R0061 Shelby Wright Test Labs.
- ISO 5660.1-2015 Method of test for heat and smoke release rates – refer report AWTA Product Testing (Victoria) no 22-000683.
- AliClad Aluminium Cladding & Soffit 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/