



PRODUCT CERTIFICATE

HUME CEMBOARD



PRIMAflex, PRIMAp plank, PRIMAbase & PRIMAlpha WeatherClad

CERTIFICATE NO: CM20164

Date of issue: 27/03/2020

Review Date: 26/03/2023

1 CERTIFICATE HOLDER DETAILS

HUME CEMBOARD INDUSTRIES Sdn. Bhd. –
CENTRAL

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2 PRODUCT CERTIFICATION BODY



SAI Global Certification Services Pty Limited

(ACN 108 716 669) Trading as "SAI Global"

JAS-ANZ Accreditation No. Z1440295AS

680 George St, Sydney, NSW 2000

www.saiglobal.com

KEY INFORMATION

3 SUMMARY OF DESCRIPTION OF BUILDING METHOD OR PRODUCT

PRIMAflex – A smooth flat autoclaved cellulose fibre reinforced cement sheet with square edges.

PRIMAp plank – An autoclaved cellulose fibre reinforced cement siding board. Available in smooth, woodgrain & cedar profiles.

PRIMAbase – An Autoclaved cellulose fibre reinforced cement sheet rebated on 3 sides for seamless jointing and as a substrate for texture coating.

PRIMAlpha WeatherClad – An autoclaved smooth cellulose fibre cement cladding. Pre-primed featuring tongue & groove jointing system at the width & bevelled top edge at the back surface.

Continuation of description can be found in item 9. Supporting Information about Description of Building Product or Method.

Matters that should be taken into account in the use or application of the building method or product can be found in item 6. Conditions and Limitations of Use

4 SUMMARY OF INTENDED USE OF BUILDING METHOD OR PRODUCT

PRIMAflex – An External wall cladding, external ceiling and an eaves lining boards.

PRIMAp plank – A siding board for external walls & gable ends cladding where a traditional timber look surface is required.

PRIMAbase – A substrate for exterior texture coating systems.

PRIMAlpha WeatherClad – A nailable siding board designed for external cladding.

Continuation of intended use can be found in item 10. Supporting Information about Intended use of Building Product or Method.

5 BUILDING CODE PROVISIONS – New Zealand Building Code (NZBC) as at JAN 2017

Clause B1 Structure – B1.3.1; B1.3.2; B1.3.3(a, h, j); B1.3.4

Clause B2 Durability – B2.3.1(b); B2.3.2

Clause C3 Fire affecting areas beyond the fire source – C3.7

Clause E2 External Moisture – E2.3.2; E2.3.5

Clause F2 Hazardous Building materials – F2.3.1

If designed, used, installed & maintained in accordance with the scope of this Certificate, the above-mentioned product will meet the following provisions of the NZBC. How the building method or product complies or contributes can be found in item 12. Basis for Certification.

Any qualifications on the extent of that compliance can be found in item 6. Conditions and limitations of use.



The certificate holder must maintain compliance with the conditions set out in section 15 of the Building (Product Certification) Regulations 2008.

This certificate is issued by SAI Global, an independent certification body accredited by the product certification accreditation body appointed by the Chief Executive of Ministry Business, Innovation and Employment (MBIE) under the Building Act 2004. MBIE does not in any way warrant, guarantee or represent that the building method or product, the subject of this certificate conforms with the New Zealand Building Code, nor accept any liability arising out of the use of the building method or product. MBIE disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages, and costs arising as a result of the use of the building method(s) or product(s) referred to in this certificate.

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6 CONDITIONS AND LIMITATIONS OF USE

1. **PRIMAflex, PRIMAp plank, PRIMAbase, and PRIMAlpha WeatherClad** External cladding on steel or timber framed buildings, within the scope of E2/AS1 para 1.0 for all NZS3604:2011 wind zones up to and including Extra High.
2. **PRIMAflex, PRIMAp plank, PRIMAbase, and PRIMAlpha WeatherClad** External wall cladding can be direct fixed only where the E2/AS1 Risk Score is 0-6 and must be fixed over a nominal 20mm drained cavity where the E2/AS1 Risk Score is between 7 and 20.
3. **PRIMAflex, PRIMAp plank, PRIMAbase and PRIMAlpha WeatherClad** must be installed in accordance with the manufacturer's installation instructions as relevant and referenced below

Reference Documents:

1. Prima External Cladding Technical Manual Version 3038_V2, June 2016 (for PRIMAflex, PRIMAp plank and PRIMAbase).
2. PRIMAlpha WeatherClad Technical Manual V1 1708, Aug 2017.

7 HEALTH AND SAFETY INFORMATION

Samples of Hume Cemboard fibre cement panels were tested to AS 4964 – Method for the qualitative identification of asbestos in bulk samples and results of the analysis confirmed no asbestos was detected.

8 SIGNATURES

Name and Signature of the Product Certification Body's (PCB) authorised representative and, where different, the person assigned by the PCB to make the certification decision

Heather Mahon
Global Head of Technical Services
SAI Global Assurance



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SCHEDULE: INFORMATION THAT SUPPORTS KEY INFORMATION

9 SUPPORTING INFORMATION ABOUT DESCRIPTION

PRIMAflex – A lightweight, smooth flat autoclaved cellulose fibre cement sheet. The basic composition is Portland cement, cellulose fibre, ground sand and water. Available in 4.5mm, 6.0mm, 9.0mm or 12.0mm thickness with square edges. A variety of standard lengths and widths are available to suit specific application.

PRIMAp plank – An autoclaved 7.5mm thick cellulose fibre reinforced cement siding board. It has a timber planking appearance. Available in “Smooth Surface” (for traditional timber look), and “Woodgrain Texture” (for enhanced timber profiling) and “Timbergrain Texture” (for straight grain wood profiling).

PRIMAbase – An autoclaved 7.5mm thick flat cellulose fibre reinforced cement sheet blue primed providing a suitable substrate for texture coating systems. It features rebated edges for a seamless joint finish prior to texture coating and is compatible with a wide range of acrylic finishes.

For more information about standard sizes and product physical and mechanical properties, refer to installation instructions for **PRIMAflex**, **PRIMAp plank** and **PRIMAbase** provided in the Prima External Cladding Technical Manual Version 3038_V2, June 2016.

PRIMAalpha Weatherclad An autoclaved pre-primed nailable cellulose fibre cement cladding featuring tongue and groove jointing system at the width and bevelled top edge at the back surface for quick joint installation. Available in 16.0mm thickness with smooth surface that provides deep shadow lines for design flexibility. For more information about standard sizes and product physical and mechanical properties, refer to **PRIMAalpha Weatherclad** Technical Manual V1 1708, Aug 2017.



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MATERIAL PROPERTIES & COMPOSITION

Properties	Values
Product Composition	<ul style="list-style-type: none">• Top Grade Cellulose Fibre• Finely Ground Sand• Portland Cement• Water
Bending Strength (Saturation)	> 7 MPa (AS/NZS 2908.2)
Category	3
Type	A
Average Density (Oven Dry)	1300 kg/m3 (AS/NZS 2908.2)
Dimensional & Geometrical Conformance	Passed (AS/NZS 2908.2)
Water Permeability	Passed (AS/NZS 2908.2)
Moisture Movement 30-90% relative humidity	0.05% (ISO 8336: 2009)
Heat-Rain Resistance	Passed (AS/NZS 2908.2)
Frost Resistance	Passed (AS/NZS 2908.2)
Warm Water Resistance	Passed (AS/NZS 2908.2)
Soak-Dry Performance	Passed (AS/NZS 2908.2)
Combustibility	Deem to comply with BCA
Early Fire Hazard Test	Passed (AS 1530.3)
Thermal Conductivity	~ 0.20W/mK (ASTM C518)



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10 SUPPORTING INFORMATION ABOUT INTENDED USE

PRIMAflex External applications in eaves, soffit linings, ceilings, partitions, garble ends, and wall cladding.

PRIMAp plank External applications as a Fascia Board Ceiling, Gate and Fencing, Skirting, Screening, Wall and Gable End Cladding.

PRIMAbase External applications as substrate for texture coating systems. It features rebated edges for a seamless joint finish prior to texture coating and is compatible with a wide range of acrylic finishes.

PRIMAlpha Weatherclad External application pre-primed nailable cladding.

For more information about intended use, refer to the following manuals, as relevant:

- For **PRIMAflex, PRIMAp plank and PRIMAbase** – Prima External Cladding Technical Manual Version 3038_V2, June 2016
- For **PRIMAlpha Weatherclad** – PRIMAlpha Weatherclad Technical Manual V1 1708, Aug 2017.

11 SUPPORTING INFORMATION ABOUT CONDITIONS AND LIMITATIONS OF USE

All conditions and limitations are as stated above in item 6. **Conditions and Limitations of Use**

12 BASIS FOR CERTIFICATION

1. **Structure** – by testing and comparison with provisions of Verification Method B1/VM1 and Acceptable Solution B1/AS1
2. **Durability** – by testing and comparison with provisions of Verification Method B2/VM1
3. **Fire** – by testing and comparison with the provisions of Verification Method C/VM2
4. **External Moisture** – by testing to Verification Method E2/VM1, and comparison with details of Acceptable Solution E2/AS1
5. **Hazardous Building Materials** – by analysis by testing

13 SUPPORTING DOCUMENTATION FOR CERTIFICATION

1. **BRANZ report TP1563 DU01 Weathertightness Test to E2/VM1 of the PRIMAflex Cavity System (20 March 2008)**
This report provides the results of testing the PRIMAflex cavity system to AS/NZS 4284:2008 Testing of building facades, referenced in in verification method E2/VM1.
2. **BRANZ Report STO741 Face load testing of the PRIMAflex Cavity System (10 April 2008)**
This report establishes the strength of the PRIMAflex cavity System under face loading and relates it to the wind loading sections of NZS3604:2011 Timber-framed buildings.
3. **BRANZ Appraisal 635 PRIMAflex Cavity System (23 May 2019)**
This report contains an assessment by BRANZ of the PRIMAflex Cavity System and forms the opinion the system is fit for purpose and will comply with the Building Code to the extent specified in this certificate subject to conditions and limitations of use.
4. **CSIRO Technical Assessment 351 PRIMAbase External Cladding Base Sheet for Texture Coating (January 2007)**
This report contains an assessment by CSIRO about the physical properties and performance of PRIMAbase as a suitable substrate for texture coating.



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- 5. OPUS Appraisal 1997/13 PRIMAbase fibre cement wallboard (March 1998)**
This report contains an assessment by Opus on the properties and performance of PRIMAbase and includes consideration of testing using simulated wind loads. It also states that PRIMAbase meets the performance requirements of NZBC for 50 years provided the integrity of the coating system is maintained.
- 6. CSIRO Technical Assessment 228 PRIMAflex Cladding, Eaves Lining, Ceiling and Partition Boards (December 1997)**
This report contains an assessment by CSIRO on the properties and performance of PRIMAflex and states that PRIMAflex is suitable for external cladding, ceilings, and lining of eaves.
- 7. OPUS Appraisal 1997/15 PRIMAflex Fibre Cement Wallboard (June 1998)**
This report contains an assessment by Opus on the physical properties and performance of PRIMAflex including resistance to impacts, durability, external moisture, and energy efficiency and includes consideration of testing using simulated wind loads. It also states that PRIMAbase meets the performance requirements of NZBC for 50 years provided the integrity of the coating system is maintained.
- 8. OPUS Appraisal 1997/16 PRIMAp plank Fibre Cement Cladding (December 1998)**
This report contains an assessment by Opus on the physical properties and performance of PRIMAp plank including resistance to impacts, durability, external moisture, and energy efficiency. It also includes consideration of testing using simulated wind loads.
- 9. BRANZ Report DC0724 PRIMAbase and PRIMAflex 3-year Exposure Results and Summary of Previous Testing (17 August 2004)**
This report documents the performance of PRIMAbase and PRIMAflex cellulose fibre-cement board after 3 years aging under natural conditions and summarises previously reported test results to support the preparation of a 50-year durability opinion consistent with the NZBC requirements for use as a structural element.
- 10. CSIRO report FNK 0195 Test on a fibre-reinforced-cement sheet (October 2004)**
This report contains the results of testing PRIMAflex sheet at 50 kW/m² irradiance in accordance with AS/NZS 3837:1998 Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter. The sample failed to ignite within 10 minutes.
- 11. CSIRO Report FNC9016 Combustibility Test for Material (28 November 2007)**
This report presents results of testing PRIMAflex in accordance with AS 1530.1-1984 Methods for fire tests on building materials, components and structures - Part 1: Combustibility test for materials, and establishes the product is non-combustible.
- 12. HCI/14/000800AA Tests (PRIMAp plank 7.5mm) to AS/NZS2908.2:2000 (May 2015)**
This report contains the results of testing PRIMAp plank to AS/NZS 2908.2, including bending strength, apparent density, water permeability, warm water, dry soak, freeze-thaw, heat rain and dimensional tolerances, and indicated the material complied in all respects with the performance characteristics required of Type A (external application) sheets, Category 3 under AS/NZS 2908.2:2000 Cellulose cement products Part 2: Flat sheets.
- 13. HCI/17/000400AA Tests (PRIMAflex 4.5mm) to AS/NZS2908.2:2000 (Dec 2017)**
This report contains the results of testing PRIMAflex to AS/NZS 2908.2, including bending strength, apparent density, water permeability, warm water, dry soak, freeze-thaw, heat rain and dimensional tolerances, and indicated the material complied in all respects with the performance characteristics required of Type A (external application) sheets, Category 3 under AS/NZS 2908.2:2000 Cellulose cement products Part 2: Flat sheets.
- 14. HCI/17/000200AA Tests (PRIMAlpha WeatherClad 16mm) to AS/NZS2908.2:2000 (Dec 2017)**
This report contains the results of testing PRIMAlpha Weatherclad to AS/NZS 2908.2, including bending strength, apparent density, water permeability, warm water, dry soak, freeze-thaw, heat rain and dimensional tolerances, and indicated the material complied in all respects with the performance characteristics required of Type A (external application) sheets, Category 3 under AS/NZS 2908.2:2000 Cellulose cement products Part 2: Flat sheets.
- 15. HCI/18/000100AA Tests (PRIMAbase 7.5mm) to AS/NZS2908.2:2000 (May 2018)**
This report contains the results of testing PRIMAbase to AS/NZS 2908.2, including bending strength, apparent density, water permeability, warm water, dry soak, freeze-thaw, heat rain and dimensional tolerances, and indicated the material complied in all respects with the performance characteristics required of Type A (external application) sheets, Category 3 under AS/NZS 2908.2:2000 Cellulose cement products Part 2: Flat sheets.



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16. BRANZ Report DC2092 Properties of Hume Fibre Cement Board (June 2011)

This report contains the results of testing to AS/NZS 2908.2, including bending strength, Freeze-thaw susceptibility, warm water soaking, soak-dry testing, resistance to heat-rain cycling, moisture movement, and moisture movement. Testing indicated the material complied in all respects with the performance characteristics required of Type A (external application) sheets under AS/NZS 2908.2:2000 Cellulose cement products Part 2: Flat sheets. The dimensional stability (moisture movement) of the sample was also measured using the method ISO 8336:2009 Fibre-cement sheets – Product specification and test methods.

17. Bureau Veritas Report 09ARTH1428531 Rev 3 Tests to AS/NZS2908.2:2000 (June 2010)

This report contains the results of testing to AS/NZS 2908.2, including apparent density, bending strength, and water permeability. Testing indicated the material complied with the requirements of Type A (external application) sheets under AS/NZS 2908.2:2000 Cellulose cement products Part 2: Flat sheets.

18. Envirolab (various samples of Hume Cemboard fibre cement panels and thicknesses) Tests to AS4964 – Method for the qualitative identification of asbestos in bulk samples

Samples of Hume Cemboard fibre cement panels were tested, and results of the analysis confirmed no asbestos was detected.

14 CONDITIONS RELATING TO NOTIFICATION

The certificate holder [HUME CEMBOARD INDUSTRIES SDN BHD-CENTRAL] must notify the product certification body [SAI Global] in writing, of any intended change to any of the following particulars:

- The name, address, or contact details of the certificate hold;
- Any address of a location where a certified product is produced or manufactured

The certificate holder shall notify the product certification body in writing of any intended change, modification, or alteration to any of the following:

- The certified building method or product;
- The method of its production or manufacture;
- The product quality plan prepared in respect of the certified building method or product;
- The application or installation instructions for the certified building method or product;
- Any documentation relating to the use and maintenance of the certified building method or product.

If the certificate holder has any reason to suspect that the certified building method or product does not comply with the Building Code, the certificate holder notifies the product certification body in writing of the reason for that suspicion.

If the certificate holder or the product certification body finds that a certified building method or product that has been released on the market does not comply with the Building Code, the certificate holder discloses that fact in disclosure statements published in a form that is acceptable to the product certification body and to MBIE.

If the certificate is suspended or revoked, the certificate holder—

- shall notify all customers to whom the building method or product is regularly supplied; and
- immediately ceases using the certificate, the mark of conformity, and any reference to the number of the certificate



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