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**THIS IS TO CERTIFY THAT**

## Exotec™ Facade Panel and Fixing System

**Type and/or use of product:**

External Façade Panel and Fixing System.

**Description of product:**

The James Hardie Exotec™ Facade Panel and Fixing System is an express joint façade system comprising of compressed fibre cement (CFC) panels and the proprietary James Hardie top hat system. Panels are supplied as paintable or pre-finished.

**COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)**

**BCA 2019 (Amdt. 1)**

	Volume One	Volume Two
<b>Performance Requirement(s):</b>	BP1.1(b)(i) & (iii) FP1.4	P2.1.1(b)(i) & (iii) P2.2.2
	Structural reliability – Permanent and wind actions Weatherproofing – Subject to <i>Limitation and Condition 2</i> .	Structural reliability – Permanent and wind actions Weatherproofing – Subject to <i>Limitation and Condition 2</i> .
<b>Deemed-to-Satisfy Provision(s):</b>	C1.9(a)(i), (d)&(e)(iv) &(vi) G5.2 J1.5	3.5.4.3(a) 3.5.4.4(a) 3.5.4.5 3.10.5.0 3.12.1.4
	Non-combustible building elements Construction in bushfire prone areas (BAL Low-40) Energy Efficiency – External Walls. Must be used in conjunction with other building elements to achieve a Total R Value. Refer A3	Wall cladding boards – Fibre-cement Sheet wall cladding Eaves and soffit linings Bushfire areas (BAL Low-40) Energy Efficiency – External Walls. Must be used in conjunction with other building elements to achieve a Total R Value. Refer A3
<b>State or territory variation(s):</b>	G5.2 (NSW & SA)	3.10.5.0 (NSW, QLD), Part 3.12 (NSW, NT, SA, Qld, Tas, ACT)

**SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B**



Richard Donarski - CMI



Don Grehan – Unrestricted Building Certifier

**Date of issue:** 21/03/2023

**Date of expiry:** 17/05/2024



## Limitations and conditions:

1. The ExoTec™ Façade Panel and Fixing system must be installed in accordance with the relevant James Hardie technical literature.
  - a. Where ExoTec™ Façade Panel is to be painted on-site or finished with a factory applied coating, the panels must be specified and installed in accordance with the ExoTec™ Façade Panel and Fixing System Installation Guide (May 2021).
  - b. A qualified Structural Engineer must design the substructure and the connection between the substructure and the top hats.
  - c. It is the responsibility of the Project Engineer to determine the appropriate wind pressure for the project and specify the fixing of the top hats to the structure. The Engineer must limit deflection of the supporting structure to span/250 for Serviceability Wind Load in accordance with AS 1170.2:2011 'Structural design actions Wind actions'.
2. To satisfy FP1.4 & P2.2.2 via verification, the relevant design is required to meet the criteria of FV1.1 and/or V2.2.1 to the satisfaction of the Appropriate Authority as defined by the NCC. The site specific building must;
  - (a)(i) has a risk score of 20 or less, when the sum of all risk factor scores are determined in accordance with Table FV1.1/V2.2.1a; and
  - (a)(ii) is not subjected to an ultimate limit state wind pressure of more than 2.5kPa; and
  - (a)(iii) includes only windows that comply with AS 2047Compliance with Weatherproofing is limited to the tested specimen detailed in A3, deviations from this specimen, is subject to site specific design and approval by the regulatory authority.
3. Compliance with BP1.1(b)(iii) & P2.1.1(b)(iii) excludes resistance to impact loading from windborne debris.
4. The Exotec™ Façade Panel, as certified, will contribute to the overall thermal performance of the building; however, the performance values are for guidance only and must be verified by a suitably qualified person(s). It is the responsibility of the building designer to ensure the minimum thermal requirements for the building envelope is achieved.
5. In order to maintain compliance with BAL, it is the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959:2018.
6. No assessment has been undertaken on the product for Part F6 of Vol 1 or Part 3.8.7 of Vol 2 of the 2019 BCA for Condensation management. A pliable building membrane complying with AS/NZS 4200.1:2017 must be installed in accordance with AS/NZS 4200.2:2017 to separate the wall cladding panels from any water sensitive materials.
7. In all installations, the minimum clearance between the underside of panel and the adjoining surface level below must comply with the specifications in Part 3.5.4.7 of Volume 2 of the NCC.
8. The use of the certified product/system is subject to these Limitations and Conditions and must be read in conjunction with the Scope of Certification below.

## Building classification/s:

Class 1,2,3,4,5,6,7,8,9 & 10

**Scope of certification:** The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website [www.abcb.gov.au](http://www.abcb.gov.au). This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the Certificate Holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Only criteria as identified within this Certificate of Conformity can be used for CodeMark certification claims. Where other claims are made in a client's Installation Manual, Website or other documents that are outside the criteria on this Certificate of Conformity, such criteria cannot be used or claimed to meet the requirements of this CodeMark certification.

The NCC defines a Performance Solution as one that complies with the Performance Requirements by means other than a Deemed-to-Satisfy Solution. A Building Solution that relies on a CodeMark Certificate of Conformity that certifies a product against the Performance Requirements cannot be considered as Deemed-to-Satisfy Solution.



# Certificate of Conformity

This Certificate of Conformity may only relate to a part of a Performance Solution. In these circumstances other evidence of suitability is needed to demonstrate that the relevant Performance Requirements have been met. The relevant provisions of the Governing Requirements in Part A of the NCC will also need to be satisfied.

This Certificate of Conformity is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate of Conformity is outside of this document's scope and the installation of the certified product will not be covered by this Certificate of Conformity.

**Disclaimer:** The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim 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 product(s) referred to in this certificate.

When using the CodeMark logo in relation to or on the product/system, the Certificate Holder makes a declaration of compliance with the Scope of Certification and confirms that the product is identical to the product certified herein. In issuing this Certificate of Conformity, CMI Certification Pty Ltd (CMI) has relied on the experience and expertise of external bodies (laboratories and technical experts).

Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

## APPENDIX A – PRODUCT TECHNICAL DATA

### A1 Type and intended use of product

As per page 1.

### A2 Description of product

#### System Components

Product	Description	Quantity / Size (Nominal)		
		Thickness (mm)	Width (mm)	Lengths (mm)
Exotec™ facade panel	Dense compressed panel. Square edge. Factory sealed on all six sides. The Nominal density of the 9mm board is 1550kg/m <sup>3</sup> . The Paintable panel has a distinctive white face, which accepts a wide range of paint finishes. The panel must be installed with the white side facing the exterior of the structure. The Pre-Finished Panel is pre-sealed by James Hardie to create a natural “raw” fibre-cement aesthetic with an optional pre-finish using factory applied coating via a third-party supplier.	9	900	1800, 2100, 2400, 2700 and 3000
		12	1200	2400 and 3000
Exotec™ Top Hat	A rolled metal section, for use with Exotec™ façade panel and fixing system, designed to span vertically across the building structure to support façade panels and isolate different movement of the panels from those of the structure.	0.75 gauge	124 wide x 35 deep	6000 and 7200
James Hardie Intermediate Top Hat	A metal top hat installed vertically for use with Exotec™ and ComTex façade panel and fixing system, for intermediate sheet support.	0.75 gauge	50 wide x 35 deep	6000 and 7200
Exotec™ Gasket Snap Strip	For use with the Exotec™ façade panel fixing system, this gasket snap strip is specially designed to clip into the Exotec™ Top Hat at vertical façade panel joints to cover fixings to the structure and to provide an initial weather seal and drainage using a neoprene gasket.	-	-	3620
James Hardie Backing Strip	A weather seal at horizontal panel joints for use with Exotec™ façade panel and fixing system.	-	-	1190, 2390 and 2990
James Hardie Façade Washers	Façade washers used for exposed fastener fixing with Exotec™ façade panel and fixing system.	-	-	-
James Hardie Base Coat	A water-resistant base coat compound used to finish over countersunk fasteners with epoxy.	-	-	-
James Hardie Joint Sealant	A general purpose, paintable, exterior grade polyurethane joint sealant.	-	-	-
HardieEdge™ Trim	An architectural slab edge solution fabricated from high-quality powder coated aluminium.	-	-	3950
HardieWrap™ Weather Barrier	A non-perforated, highly breathable and reflective safe-glare weather barrier.	<1mm	2750	30000/roll

## A3 Product specification

Physical Properties	Saturated Condition	Equilibrium Condition 23°C – 50% RH	Standard
Average Bending Strength	> 7.0MPa		
Category	3	-	AS/NZS 2908.2:2000
Type	A		
Density in kg/m <sup>3</sup> (Oven Dry)	1490	-	AS/NZS 2908.2:2000
Watertightness	-	Passes	AS/NZS 4284:2008 & AS/NZS 2908.2:2000
Dimensional Conformance	-	Passes	AS/NZS 2908.2:2000
Heat-Rain Durability			
Warm Water Resistance		Passes	AS/NZS 2908.2:2000
Freeze-Thaw Resistance		Passes	AS/NZS 2908.2:2000
Soak-dry			
Combustibility	Suitable where non-combustible materials are required in accordance with C1.9 of the BCA		Deemed to comply with BCA

**Bushfire** Provided any joints are no greater than 3mm or appropriately sealed, compliance with AS 3959-2009 as well as the National Construction Code of Australia 2019 Volumes 1 and 2 for BAL-Low to BAL-40.

**Thermal Properties** The ExoTec™ facade panels will contribute to the overall thermal performance of the building; however, it is the responsibility of the building designer to ensure the minimum thermal requirements for the building envelope is achieved.

When tested in accordance with ASTM C518, the 9mm panel achieves an R-Value of 0.015. It is the responsibility of the building designer to ensure the minimum R-Value for the building envelope is achieved.

**Weatherproofing** Exotec™ Facade Panel and Fixing System was tested in accordance with the Verification Method FV1.1 and V2.2.1 'Weatherproofing' test procedure as contained within National Construction Code of Australia and subsequently assessed for validation against the certified product.

### Results

Test Type	Criteria	Result
<b>Structural Test</b>	100% Serviceability Limit State Pressure of 1.51kPa for 1 minute in both positive and negative directions.	Pass
<b>Static Water Penetration</b>	30% Serviceability Limit State Pressure 455Pa for 15 minutes Pass Criteria: No presence of water on the inside surface of the façade.	Pass
<b>Cyclic Water Penetration</b>	Cyclic @ 30-60% SLS – 455 to 910 Pa Duration: 5 minutes	Pass
	Cyclic @ 30-60% SLS – 122 Pa Duration: 15 minutes	
	Cyclic @ 30-60% SLS – 455 to 910 Pa Duration: 5 minutes Pass Criteria: No presence of water on the inside surface of the facade.	

*Source: Test Report No. TS002-21, Weathertightness in accordance with FV1.1 & V2.2.1; dated 22/03/2021.*

## A4 Manufacturer and manufacturing plant(s)

Exotec™ Facade Panels and Fixing Systems are manufactured in Australia by James Hardie Australia Pty Ltd. Contact Certificate Holder for details.

## A5 Installation requirements

The ExoTec™ Façade Panel and Fixing system must be installed in accordance with the relevant James Hardie technical literature. Where ExoTec™ Façade Panel is to be painted on-site or finished with a factory applied coating, the panels must be specified and installed in accordance with the [ExoTec Facade Panel Install Guide July 2021](#).

Failure to install, finish or maintain this product in accordance with applicable building codes, regulations, standards and James Hardie's written application instructions may lead to personal injury, affect system performance, violate local building codes, and void James Hardie's product warranty.

## A6 Other relevant technical data

**Fire Resistance** Testing conducted by CSIRO on the Exotec™ Cladding materials in accordance with AS/NZS 3837:1998 and are classified as Group 1 material. (Average Specific Extinction Area 55.1m<sup>2</sup>/Kg).

*Source: CSIRO Certificate No. 1126 dated 28/08/2008.*

## APPENDIX B – EVALUATION STATEMENTS

### B1 Evaluation methods

1. Characteristic Type Testing – A5.2(1)(d). Reports from Accredited Testing Laboratories.
2. Bushfire Provisions – A5.2(1)(e). Reports from a professional engineer.
3. Fire Safety Provisions A5.2(1)(d). Reports from Accredited Testing Laboratories.
4. Structural Provisions A5.2(1)(e). Reports from a professional engineer.
5. Thermal Provisions A5.2(1)(e). Reports from a professional engineer.
6. Weatherproofing Provision A5.2(1)(d). Reports from Accredited Testing Laboratories.

### B2 Reports

1. Acronem Consulting Australia Pty Ltd; Thermal break requirements for Exotec™ on Metal Frames Single Stud; Dated 28/11/2017.
2. BRANZ, Project Number: EC0712; Thermal Conductivity Measurement of Six Samples of Fibre Cement Board Products; Dated 17/10/2003.
3. Cardno; Engineering Report S11713-LO-44A; Certification of James Hardie ExoTec™ Façade Panel and Fixing System - compliance to AS/NZS 1170.2-2002 Clause 2.5.5 & AS 4040.3-1992; Dated 18/08/2009.
4. CSIRO; NATA Accreditation No. 165; Certificate No.: 1126; Certificate of Assessment in accordance with AS/NZS 3837 Group Number 1 and Average specific extinction area: 55.1m<sup>2</sup>/kg; Dated 28/08/2008.
5. David Beneke Consulting Pty Ltd; Report No. 2011-45-LO-05; Certification of James Hardie ExoTec™ Façade Systems in High Wind Applications; Dated 19/04/2011.
6. David Beneke Consulting Pty Ltd; Report No. 2011-45-LO-83; Structural Certification of the James Hardie Exotec™ Facade System - Revision 4; Dated 02/08/2018.
7. David Beneke Consulting Pty Ltd; Report No. 2011-45-LO-84; Structural Certification of The James Hardie Exotec™ Facade System used in Soffit Applications - Revision 2; Dated 02/08/2018.
8. Ignis Solutions Pty Ltd; Evaluation No. IGNS-6690-01 Issue 01 Revision 00[2018]; Compliance with AS 3959-2009 BAL Low-40; Dated 31/03/2018.
9. James Hardie Research Pty Ltd; NATA Accreditation No. 14220; Compliance Certificate ExoTec™ Façade Panel - Characteristic Type Tests required by AS/NZS 2908.2:2000; Dated July 2010.
10. James Hardie Research Pty Ltd; NATA Accreditation No. 14220; Report No. TS002-21; Weathertightness (FV1.1 / V2.2.1 Weatherproofing); Dated 22/03/2021.

The Certificate Holder has chosen not to make the above evidence of compliance publicly available, due to the documents being considered commercial in confidence.