Certificate of Conformity

Certification Body:

CertMark International
ABN: 80 111 217 568
JAS-ANZ Accreditation No. Z4450210AK
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Qld 4556
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Certificate Holder:

James Hardie Systems Ptd. Ltd.
ABN: 70 614 824 921
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Cooroy, QLD 4563
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www.JHSRitek.com.au

Certificate number: CM40158

THIS IS TO CERTIFY THAT

Ritek® XL Wall® System

Type and/or use of product:

External and internal concrete wall system.

Description of product:

Pre-fabricated Permanent formwork system comprised of 6mm Fibre Cement Sheeting bonded to a Composite Aluminium and Acrylonitrile Butadiene Styrene Stud for construction of external and internal concrete walls in residential and commercial buildings and structures. Refer A2.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S) **BCA 2019**

	Volume One		Volume Two	
Performance Requirement(s):	CP2	Fire resistance – Type C construction - Contributes to compliance with CP2 (Spread of fire - external walls). For Type A & B construction, refer to *Limitations and Condition 1.*	Not applicable	
Deemed-to-Satisfy Provision(s):	C1.1(b)	Fire resistance and Stability – Refer A3	3.7.2.4(b)	Fire Separation – Refer A3
	F5.5(a)(i)(ii)	Sound insulation requirements - Contributes to the overall sound insulation of the building	3.8.6.2(a)(i)	Sound insulation requirements - Contributes to the overall sound insulation of the building
	G5.2	Construction in Bushfire Prone Areas – BAL – FZ	3.10.5.0	Bushfire areas – BAL – FZ
	J1.5	Energy Efficiency – Walls – Contributes to the overall energy efficiency of the building	3.12.1.4	Walls – Contributes to the overall energy efficiency of the building
State or territory variation(s):	Part F5 (NT), G5.2 (NSW)		3.10.5.0 (NSW, Qld), 3.12 (NSW, NT, Qld, Tas, ACT)	

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

Limitations and conditions:

1. For Type A & B construction, the use of the system must be supported by a site-specific Performance Solution (other than CV3) where the BCA, inclusive of Clause C1.9 and C1.14, requires building elements and/or ancillary elements to be non-combustible. Acceptance or otherwise of the site-specific Performance Solution is at the discretion of the appropriate Authority subject to the regulatory framework of the relevant State or Territory.
2. This certificate of conformity excludes assessment and certification of external weatherproofing.
3. The system must be designed by a project engineer.

Building classification/s:

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

John Thorpe - CMI

Don Grehan – Unrestricted Building Certifier

Date of issue: 26/06/2019

Date of expiry: 26/06/2022

4. In order to maintain compliance with BAL, it is the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959-2009.
5. FRL's as applicable, limited to the extent of the wall system described in A3.
6. Assessment of Structural Adequacy, including fixing details and wind load capacities, is outside the scope of this Certificate of Conformity. Project specific engineering advice is required.
7. Only to be installed in accordance with the Ritek® Design, Detailing and Installation Guide Version 2019.01
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.

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. 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.

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.

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. This may result in the product being classified as a non-conforming building product.

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, CertMark International 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

Ritek® XL Wall System is manufactured with standard overall wall thicknesses of 115, 135, 150, 165, 200 and 265mm, heights of up to 5.0m, and a standard panel width of 1.2m.

A3 Product specification

The wall panels are supplied in various wall thicknesses, consequently the FRL's, Sound and Thermal Insulation values of the Wall System will vary, dependent on the thickness of the finished wall. Refer to the Ritek® Design, Detailing and Installation Guide Version 2015.01.1.

Reaction to Fire

Testing conducted in accordance with AS 1530.4-2005:

FRL 240/240/240 for 150XL.

The specimen comprised a reinforced concrete wall system 3000mm high x 3000mm wide x 150mm thick made up of three pre-fabricated permanent formwork panels filled with concrete after assembly. The pre-fabricated permanent formwork panels comprised two 6mm thick fibre cement sheets bonded using industrial strength adhesive to plated aluminium extrusions separated with plastic joiners at nominally 200mm centres, to form a stud assembly. The studs were equally spaced over the width of the panel at nominally 164mm centres. The plastic joiners generate a large open aspect for provision of horizontal and vertical reinforcing bars. The panels were put up vertically, and were fastened together using 8g x 25mm long CSK screws at nominally 300mm centres. The screws were fixed into a 1.2m thick x 40mm wide aluminium strip located on the inside of the panel sheeting. The wall was reinforced with N12 reinforcing bars at 400mm centres, horizontally and vertically. The panels were appropriately braced and 32 Mpa concrete was pumped in through the top openings in 1500mm high layers and trowelled off when completely filled.
Source: *CSIRO Report FSV 1324, Dated 31/08/2008.*

Testing conducting in accordance with AS 1530.4-2014:

FRL 240/240/180 for 115XL.

The specimen comprised a reinforced concrete filled wall system measuring 3000mm high x 3000mm wide x 116mm thick. The specimen wall comprised three pre-fabricated permanent formwork panels which were screw fixed together and filled with concrete after assembly. The 1200-mm wide pre-fabricated permanent formwork panels comprised two 6mm thick fibre cement sheets bonded using industrial strength adhesive to plated aluminium extrusions separated with plastic joiners at nominally 200mm vertical centres, to form a stud assembly. The studs were equally spaced over the width of the panel at nominally 164mm centres. The plastic joiners provided a large open aspect for provision of horizontal and vertical reinforcing bars. The pre-fabricated wall panels were installed vertically and fastened together using 8g x 25mm long CSK screws at nominally 300mm vertical centres. The screws were fixed into a 1.2m thick x 40mm wide aluminium strip located on the inside of the panel fibre cement sheeting. A maximum vertical joint width of 2mm was maintained between wall panel facings. The wall assembly was reinforced using N12 reinforcing bars at 400mm centres, both horizontally and vertically prior to being filled with 32 MPa concrete. The concrete was pumped in through the top openings in 1500mm high layers and trowelled off level when completely filled. The concrete mix comprised 10mm coarse aggregate with a 160mm slump measured at the time of core filling.
Source: *CSIRO Report FSV 1980, Dated 18/02/2019.*

A4 Manufacturer and manufacturing plant(s)

This field is voluntary. For more information, please contact the Certificate Holder.

A5 Installation requirements

Installation requirements, in relation to Structural Adequacy and Weatherproofing, are outside the scope of this certificate and subject to project specific engineering advice. The Certificate Holder has made available the Ritek® Design, Detailing and Installation Guide Version 2019.01. Any deviation from the tested specimen does not form part of this Certificate of Conformity.

A6 Other relevant technical data

Product Numbering

The number in the Ritek® XL Wall Type Code is the overall thickness of the wall, including the 6mm fibre-cement facing sheets, i.e. a 135XL Ritek® wall is 135mm thick overall. The corresponding concrete thickness would be 135mm less 12mm, i.e. 123mm thick.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Fire Safety Provisions – A5.2(d). Reports from Accredited Testing Laboratories.
2. Thermal Provisions – A5.2(e). Report from professional engineer.
3. Acoustic Provisions – A5.2(e). Reports from professional engineer.

B2 Reports

a. CSIRO; NATA Accreditation No: 165; Report FSV 1980; Testing for determining FRL in accordance with AS 1530.4-2014; Dated 18/02/2019.
b. CSIRO; NATA Accreditation No: 165; Report FSV 1324; Testing for determining FRL in accordance with AS 1530.4-2005; Dated 31/10/2008.
c. James M Fricker; Report No. 128E; Thermal Performance Ritek® XL Wall System; Dated 22/03/2011.
d. PKA Acoustic Professional Engineers; Report No. PKA-A038; Performance Assessment of Ritek® XL Wall System; Dated 16/08/2005.

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