



Certificate of Conformity



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Certificate Holder:

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Certificate number: CM 30107 Rev 5

THIS TO CERTIFY THAT

AFS REDIWALL®

Type and/or use of product:

AFS REDIWALL® is a permanent formwork system for internal and external loadbearing and non-loadbearing reinforced concrete walls with structural, fire, weatherproofing, acoustic and thermal performance characteristics.

Description of product:

AFS REDIWALL® comprises:

1. Interlocking PVC panel extrusions as permanent formwork, and associated PVC accessories.
2. Fibre cement sheet or PVC end closures.
3. Reinforcing steel.
4. Concrete fill.
5. A range of finishing options as described in A2.

AFS REDIWALL® types are as follows, the numerical values representing the thickness of the wall in millimetres:

1. RW110C Single Reinforcement.
2. RW156C Single Reinforcement.
3. RW200C Single or Double Reinforcement.
4. RW256S Double Reinforcement.
5. RW275S Double Reinforcement.
6. RW300S Double Reinforcement.

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.

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.

The purpose of Global-Mark **construction site audits** is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions. In placing the **CodeMark mark** on the product/system, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. In issuing this Certificate of Approval Global-Mark has relied on the **expertise of external bodies** (laboratories, and technical experts).

Herve Michoux
Global-Mark Managing Director

Peter Gardner
Unrestricted Building Certifier

Date of issue: 12/09/2023

Date of expiry: 10/05/2025



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

BCA 2022

	Volume One	Volume Two and ABCB Housing Provisions	
Performance Requirement(s)	C1P1	Structural stability	
	C1P2	Spread of fire	H3P1 Spread of fire
	C1P3	Spread of fire and smoke in patient care and aged care buildings	
	C1P4	Materials and assemblies	
	C1P7	Emergency equipment	
	F3P1	Weatherproofing	H2P2 Weatherproofing
	F7P2	Sound Transmission and Insulation – Walls	H4P6 Sound insulation
	F7P4	Sound Transmission through walls in residential care buildings	
Deemed-to-Satisfy Provision(s):	B1D2	Resistance to actions	2.2.2 Resistance to actions
	B1D3	Determination of Individual actions	2.2.3 Determination of Individual actions
	B1D4(b)(i) and (i)	Determination of structural resistance of materials and forms of construction	2.2.4(c) &(d) Determination of structural resistance of materials and forms of construction
			3.4.1(2) Requirements for termite management systems
	B1D6	Construction of buildings in flood hazard areas	H1D10 Flood hazard areas
	Specification 1	Fire resistance of building elements	Specification 1 Fire resistance of building elements
	C2D2 / Specification 5	Fire-resisting construction	9.3.1(1) Separating walls
	C2D11(1)(b) / Specification 7 S7C4	Fire hazard properties	
	C4D15(2)(a)	Openings for service installations	9.3.2 Services in separating walls
	C4D16(1)&(2)	Construction joints	
	F8D3(1)	Pliable building membrane	10.8.1(1) Pliable building membrane

		G5D3	Construction in Bushfire Prone Areas – Protection	H7D4	Construction in Bushfire Prone Areas – Application
		G5D4	Protection – certain Class 9 buildings		
		J4D6	Building fabric – Walls	13.2.5	Energy efficiency– External Walls
	State or territory variation(s):	NT F7P2	Sound transmission through walls	SA H3P1	Spread of fire
		NTF7P4	Sound transmission through walls in residential care buildings	NT H4P6	Sound Insulation
		WA B1D3	Determination of individual actions		
		NT B1D4(b)(i) & (i)	Determination of structural resistance of materials and forms of construction	WA 2.2.3	Determination of individual actions
		QLD B1D4(b)(i) & (i)	Determination of structural resistance of materials and forms of construction	WA 2.2.4(c)(d)	Determination of structural resistance of materials and forms of construction
		WA B1D4(b)(i) & (i)	Determination of structural resistance of materials and forms of construction	NT 3.4.1(2)	Requirements for termite management systems
		Qld B1D6	Construction of buildings in flood hazard areas	Qld H1D10	Flood hazard areas
				Vic H1D10	Flood hazard areas
		Vic B1D6	Construction of buildings in flood hazard areas		
		SA C2D2(1),(3)&(4)	Fire-resisting construction	NSW H7D4	Construction in bushfire prone areas
		NSW C2D11(1)(b)	Fire hazard properties		
		NSW G5D3	Construction in bushfire prone areas – Protection		
		NSW G5D4	Protection – Class 9 buildings used as special fire protection purpose		
		VIC G5D4	Protection – certain Class 9 buildings	NSW 13.2.5	Energy efficiency– External Walls
		TAS Section J (NCC2019 A1 Section J)	Compliance with BCA provisions	NT 13.2.5	Energy efficiency– External Walls
		NSW J4D6	Energy Efficiency – Walls and glazing	TAS Part 13.2 (NCC2019 A1 P2.6.1)	Energy efficiency

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	NSW Section J (NSW NCC2019 A1 NSW J(A)1.2)	Compliance with BCA provisions	NSW Part H6 (NSW NCC2019 A1 3.12.1.4)	Building fabric - external walls
SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B				
Limitations and conditions				Building classification/s:
1) Volume 1 – B1D2, B1D4(b)(i) and Volume 2 (+ Housing Provisions) – 2.2.2, 2.2.4(d) The structural design of AFS REDIWALL® for compliance with NCC Volume One B1D2 and B1D4(b)(i) and ABCB Housing Provisions 2.2.2 and 2.2.4 shall be carried out by a professional engineer in accordance with AFS Rediwall Volume 1 Design, Performance & Compliance Guide March 2021 Edition and AS 3600:2018 (Incorporating Amendment No.1 and 2) for the actions determined in accordance with NCC Volume One B1D3 or ABCB Housing Provisions 2.2.3 as applicable.				Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
2) Volume 1 – B1D2 and Volume 2 (+ Housing Provisions) – 2.2.2 For applications retaining earth and/or liquid that need to be made waterproof, AFS Rediwall Volume 2 Wall Construction Detailing & Finishing Treatment Guide, March 2021 Edition must be followed.				Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
3) Volume 1 – B1D4(i) and Volume 2 (+ Housing Provisions) – 3.4.2 For NCC Volume One B1D4(i) and ABCB Housing Provisions 3.4.2, AFS REDIWALL® is deemed to be termite resistant in accordance with AS 3660.1:2014 (Incorporating Amendment No.1 and 2) Clause 3.2 (b) and (f) for concrete and PVC materials respectively. Voids in the PVC elements and concrete may provide concealed access pathways to other parts of the building and appropriate detailing and incorporation of a termite management system complying with AS 3660:2014 (Incorporating Amendment No.1 and 2) shall be adopted as necessary.				Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
4) Volume 1 – B1D6 and Volume 2 (+ Housing Provisions) – H1D10 AFS REDIWALL® in flood hazard areas per NCC Volume One B1D6 and Volume Two H1D10 shall, in addition to Limitation 1), be designed and constructed in accordance with ABCB Standard for Construction of Buildings in Flood Hazard Areas, Feb 2019.				Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
5) Volume 1 – C2D11, Specification 7 The relevant fire hazard properties of AFS REDIWALL® in accordance with NCC Volume One C2D11(1)(b)) and Specification 7 are as follows: a) AS 5637.1:2015 – i) Group Number: 1 ii) SMOGRA _{RC} : 20.4-28.3 m ² /s ² x 1000 b) AS/NZS 1530.3:1999 (R2016) – i) Ignitability Index: 10-12 ii) Spread-of-Flame Index: 0 iii) Heat Evolved Index: 0-1 iv) Smoke-Developed Index: 6.				Class 2, 3, 4, 5, 6, 7, 8, and 9

	<p>6) Volume 1 – C2D2/Specification 5</p> <p>The FRL of AFS REDIWALL® for Type A, Type B and Type C construction is in accordance with NCC Volume One Specification 1 as follows:</p> <p>a) RW156C with single layer of N12 reinforcement spaced at 350mm centres vertically and 400 mm centres horizontally; maximum wall height 3.0 m; and maximum load 233 kN/m – FRL 240/240/240</p> <p>b) RW200C RW256S, RW275S and RW300S with single layer of N12 reinforcement spaced at 350mm centres vertically and 400 mm centres horizontally; maximum wall height 3.0 m; and maximum load 333 kN/m – FRL 240/240/240</p> <p>For configurations outside the scope of a) and b), the FRL shall be determined in accordance with AS 3600:2018 (incorporating Amendment 1 and 2).</p>	<p>Class 2, 3, 4, 5, 6, 7, 8, and 9</p>
	<p>7) Volume 1 – C1P1, C1P2 and Volume 2 (+ Housing Provisions) – H3P1</p> <p>The FRL of AFS REDIWALL® for compliance with NCC Volume One C1P1 and C1P2 and NCC Volume Two H3P1 is as follows:</p> <p>a) RW110C with single layer of N12 reinforcement spaced at 350mm centres vertically and 400 mm centres horizontally and the ratio of axial load to ultimate strength no greater than 0.32:</p> <p>i) maximum effective height not exceeding 2.2 m – FRL 60/60/60</p> <p>ii) maximum 2.7 m wall height, restrained such that effective height is reduced to 2.025 m – FRL 90/90/90</p> <p>b) RW110C as per a), except in non-loadbearing applications – FRL –/120/120</p> <p>c) For RW110C configurations outside the scope of a) and b), the FRL shall be determined in accordance with AS 3600:2018 (incorporating Amendment 1 and 2), a Deemed-to-Satisfy design method specified in Specification 1 -S1C2(d)(ii).</p>	<p>Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10</p>
	<p>8) Volume 1 – C1P1 C1P2, C1P3, C1P4, C1P7, C4D15, G5D3, G5D4 and Volume 2 (+ Housing Provisions) – H3P1, 9.3.1(1), 9.3.2, H7D4</p> <p>AFS REDIWALL® system options described in Appendix A2 comply with Volume One Performance Requirements C1P1, C1P2, C1P3, C1P4 and C1P7, and Volume Two H3P1, and Deemed-to-Satisfy Provisions Volume One C4D15(2)(a)(iii), G5D3 and ABCB Housing provision 9.3.1(1), 9.3.2 and Volume Two H7D4, provided the following safety measures, by wall type and application (refer to AFS Rediwall Volume 1 Design, Performance & Compliance Guide, August 2020 Edition, Tables A4 and A5), are adhered to:</p> <p>a) External walls required to be fire-resisting or non-fire-resisting – all wall options that have a continuous cavity (open between one level of the building and the next) between the external face of the Rediwall and the outer leaf or cladding (types e., f. and g.) must have a fire stopping system installed horizontally at each slab level to prevent vertical fire spread through the cavity to the level above.</p> <p>b) External walls above fire exit discharge –</p> <p>i) For unclad Rediwall with PVC left in place and direct-stick non-combustible cladding and glue-fixed tile systems (types a., h., and i.), provision of appropriate protection above fire exit discharges shall be provided. The minimum requirement for this protection is a protective awning having the following attributes:</p> <ol style="list-style-type: none"> (1) non-combustible; (2) compliant with the requirements of Volume One Clause D2D12; (3) capable of resisting impact from falling debris; (4) projection of at least 3 m perpendicular to the subject external wall; and (5) width of at least the fire exit door width plus 300 mm to each side of the fire exit door. 	<p>Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10</p>

	<ul style="list-style-type: none"> ii) Wall options that have a continuous cavity (open between one level of the building and the next) between the external face of the Rediwall and the outer leaf or cladding (types e., f. and g.) must have a fire stopping system installed horizontally at each slab level to prevent vertical spread of fire through the cavity to the level above. c) Spandrels – all wall options that have a continuous cavity (open between one level of the building and the next) between the external face of the Rediwall and the outer leaf or cladding (types e., f. and g.) must have a fire stopping system installed horizontally at each slab level to prevent vertical fire spread through the cavity to the level above. d) Painted metal cladding complying with BCA Clause C2D10(6) is an acceptable over-cladding. As for the listed finishing types that have a continuous cavity (open between one level of the building and the next), there must be a fire stopping system installed horizontally at each slab level to prevent vertical fire spread through the cavity to the level above. e) AFS REDIWALL® boundary walls (unfinished with PVC lining left in place) located directly adjacent an existing neighbouring boundary wall must: <ul style="list-style-type: none"> i) be flashed with a non-combustible material; and, ii) have a maximum 50 mm width cavity between Rediwall and the adjacent wall, which must be a non-combustible fire-resisting wall; and, iii) not have an opening (in either wall), unless it is a fire window as specified in the BCA. f) For ground level applications of AFS REDIWALL® to a height not exceeding 2 m, if the over-cladding has a cavity (types e., f. and g.) that continues beyond the extent of Rediwall, and is continuous (open between one level of the building and the next), installation of a fire-stopping system in the cavity at the top of the Rediwall is necessary. g) For AFS REDIWALL® retaining walls where a waterproofing membrane is attached to the external face of Rediwall (type j), the membrane must be buried below ground. h) Service penetration treatment options specified and detailed in accordance with the referenced documents in Appendix A5 comply with Specification 13. Fire-stopping systems are required to have been tested to AS 1530.4:2014 in a concrete wall. Fire dampers require the addition of 6mm fiber cement board to be fitted between the wall face and the retaining angles on both sides of the wall, completely around the perimeter and extending 20mm beyond the retaining angles. Service penetrations through unclad Rediwall do not require local removal of the PVC formwork from the face area. i) Openings in fire-resisting walls that have a continuous cavity (open between one level of the building and the next - types e., f. and g.) require installation of non-combustible fire-resisting cavity barriers. j) Where AFS REDIWALL® is used for non-loadbearing internal walls (fire resisting and non- fire resisting), no additional safety measures are required. 	
<p>9) Volume 1 – Schedule 1 and Volume 2 (+ Housing Provisions) – Schedule 1</p> <p>The PVC formwork of AFS REDIWALL® is deemed combustible as per the NCC Schedule 1 definition. For external wall applications where the PVC formwork remains in place, compliance with the Performance Requirements is met when the safety measures specified in limitation note 8) as relevant are followed. When the PVC facings of the wall are removed (with only the PVC webs remaining embedded within the concrete wall), the result is a wall that behaves equivalent to a bare concrete wall that is deemed non-combustible.</p>		<p>Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10</p>
<p>10) Volume 1 – G5D3 and Volume 2 (+ Housing Provisions) – H7D4</p>		<p>Class 1, 2, 3 and 10a or deck immediately adjacent or connected to building class 1, 2 or 3</p>

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	<p>In designated bushfire prone areas subject to Bushfire Attack up to and including BAL FZ, when the building is constructed in accordance with AS3959: 2018 including Amendment 1 & 2 for the bushfire level attack level considered, AFS REDIWALL® is permitted for use</p>	
<p>11) Volume 1 – G5D4</p>	<p>In Bushfire prone areas, when the building is constructed in accordance with Specification 43 AFS REDIWALL® is permitted for use only in buildings subject to Bushfire Attack Level BAL-Low and BAL-12.5. Construction in BAL-29, BAL-40 and BAL-FZ, are outside the scope of application of the clause</p>	<p>Class 9a, 9b, 9c and 10a or deck immediately connected or adjacent to a Class 9a, 9b or 9c building</p>
	<p>12) Volume 1 – NSW G5D3 and Volume 2 (+ Housing Provisions) – NSW H7D4</p> <p>In designated bushfire prone areas subject to all Bushfire Attack Level BAL-Low, BAL-12.5, BAL-19 and BAL-29, determined in accordance with the Planning for Bush Fire Protection 2019 including addendum November 2022, when the building is constructed in accordance with AS3959: 2018 including Amendments 1 & 2 except as modified by Planning for Bush Fire Protection 2019 including addendum November 2022, AFS REDIWALL® is permitted for use.</p> <p>The compliance assessment of the certified system is limited to sections 7.5 and 8.3.2 of the Planning for Bush Fire Protection 2019 including addendum November 2022.</p> <p>Site specific conditions arising from:</p> <ul style="list-style-type: none"> - the development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required, or - the development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development <p>have not been considered for the compliance assessment.</p>	<p>Class 2, Class 3, Class 4 part of a building & Class 10a building or deck immediately adjacent or connected to building Class 2, Class 3 or Class 4 part of a building</p> <p>Class 1 & 10a building or deck associated with a building Class 1</p>
	<p>13) Volume 1 – NSW G5D4</p> <p>In designated bushfire prone areas subject to a Bushfire Attack Level (BAL) not exceeding BAL—12.5, determined in accordance with Planning for Bush Fire Protection 2019 including addendum November 2022, when the building is constructed in accordance with</p> <ol style="list-style-type: none"> 1) For class 9 building, Specification 43, except as modified by Planning for Bush Fire Protection 2019 including addendum November 2022, or 2) For class 10a building or deck AS3959: 2018 including Amendment 1 & 2 except as modified by Planning for Bush Fire Protection 2019 including addendum November 2022, and S43C13 <p>AFS REDIWALL® is permitted for use.</p> <p>The compliance assessment of the certified system is limited to sections 7.5 and 8.3.2 of the Planning for Bush Fire Protection 2019 including addendum November 2022. Site specific conditions arising from the development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development have not been considered for the compliance assessment.</p>	<p>Class 9 building that is a special fire protection purpose; and a Class 10a building or deck immediately adjacent or connected to such building</p>

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	Construction in BAL-29, BAL-40 and BAL-FZ, are outside the scope of application of the clause	
<p>14) Volume 1 – VIC G5D4</p> <p>In Bushfire prone areas, when the building is constructed in accordance with Specification 43 AFS REDIWALL® is permitted for use as external wall cladding only in buildings subject to Bushfire Attack Level BAL-Low, BAL-12.5</p> <p>For construction in BAL-29, BAL-40 and BAL-FZ, fall outside the scope of this certification</p>		Class 9a, 9b, 9c and 10a or deck immediately connected or adjacent to a Class 9a, 9b or 9c building and Class 4 associated with Class 9a, 9b or 9c
<p>15) Volume 1 – C1P1, C1P2, C1P3, C1P4, C1P7, CP8, G5D3, G5D4 and Volume 2 (+ Housing Provisions) – H3P1, H7D4</p> <p>Over-cladding of AFS REDIWALL® has the following limitations:</p> <p>a) Brick veneer shall be structurally supported independently to Rediwall, ie. not suspended off Rediwall or built off shelf angles fixed to Rediwall.</p> <p>b) Brick veneer ties shall comply with the requirements of AS 3700:2018.</p> <p>c) Mechanical fixings shall not penetrate all the way through Rediwall.</p> <p>d) Direct-stick and mechanically fixed cladding systems that are suspended off Rediwall shall not exceed 32 kg/m².</p>		Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
<p>16) Volume 1 – F3P1 and Volume 2 (+ Housing Provisions) – H2P2</p> <p>Compliance with NCC Volume One F3P1 and NCC Volume Two H2P2 for weathertightness is limited to:</p> <p>a) Serviceability pressure limit of +0.68kPa / -1.27kPa or Wind Class not exceeding N3 in accordance with AS 4055:2021;</p> <p>b) Structural design of the supporting structure must be carried out to the appropriate design loads; and,</p> <p>c) Appropriate joints (vertical and horizontal joints) must be provided to address building movements.</p>		Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
<p>17) Volume 1 – F7P2 and F7P4 and Volume 2 (+ Housing Provisions) – H4P6</p> <p>AFS REDIWALL® provides insulation against sound transmission specified in NCC Volume One F7P2 and F7P4, and Volume Two H4P6, having the following airborne sound transmission properties:</p> <p>a) RW110C: R_w50, R_w + C_{tr} 45</p> <p>b) RW156C: R_w54, R_w + C_{tr} 50</p> <p>c) RW200C: R_w58, R_w + C_{tr} 53</p> <p>d) RW256S: R_w60, R_w + C_{tr} 55</p> <p>e) RW275S: R_w61, R_w + C_{tr} 56</p> <p>f) RW300S: R_w61, R_w + C_{tr} 56</p>		Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
<p>18) Volume 1 – F8D3 and Volume 2 (+ Housing Provisions) – 10.8.1</p> <p>Compliance with NCC Volume One F8D3(1) (limited to Class 2 buildings and Class 4 parts of a building) and ABCB Housing Provisions 10.8.1(1) for condensation management requires a pliable building membrane in an external wall in accordance with NCC Volume One F8D3(1) or ABCB Housing Provisions 10.8.1(1)) as applicable.</p>		Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10
<p>19) Volume 1 – J4D6 and Volume 2 (+ Housing Provisions) – 13.2.5</p> <p>AFS REDIWALL® contributes to the thermal resistance of the building fabric, thereby contributing to the requirements of NCC Volume One J4D6, NSW J4D6 and ABCB Housing Provisions 13.2.5, NSW 13.2.5, NT 13.2.5 as follows:</p> <p>a) R-Values for the AFS REDIWALL® wall element (left) and the R-Values for the AFS REDIWALL® wall including external and internal air films, determined in accordance with AS/NZS 4859.1:2018 are as follows:</p>		Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10

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	<p>i) RW110C – element R 0.091 m².K/W with air films R 0.26 m².K/W ii) RW156C – element R 0.123 m².K/W with air films R 0.29 m².K/W iii) RW200C – element R 0.153 m².K/W with air films R 0.32 m².K/W iv) RW256S – element R 0.192 m².K/W with air films R 0.36 m².K/W v) RW275S – element R 0.205 m².K/W with air films R 0.38 m².K/W vi) RW300S – element R 0.223 m².K/W with air films R 0.39 m².K/W</p> <p>b) All wall types have a surface density greater than 220kg/m².</p> <p>In NSW, applicable to class 1, 2, 4 and 10 where the development consent requires a BASIX Single Dwelling or Multi Dwelling Certificate 4.0 or later.</p>	
	<p>20) Volume 1 – NSW Section J (NSW NCC2019 A1 NSW J(A)1.2), TAS Section J (NCC2019 A1 Section J) and Volume 2 (+ Housing Provisions) – NSW Part H6 (NSW NCC2019 A1 3.12.1.4), TAS Part 13.2 (NCC2019 A1 P2.6.1)</p> <p>AFS REDIWALL[®] contributes to the thermal resistance of the building fabric, thereby contributing to the requirements of Volume One NSW Section J (NCC2019 NSW J(A)1.2 and Volume Two NSW Part H6 (NCC2019 +A1 3.12.1.4) as follows:</p> <p>a) R-Values for the AFS REDIWALL[®] wall element (left) and the R-Values for the AFS REDIWALL[®] wall including external and internal air films, determined in accordance with AS/NZS 4859.1:2002 (incorporating Amendment No.1) are as follows:</p> <p>i) RW110C – element R 0.091 m².K/W with air films R 0.26 m².K/W ii) RW156C – element R 0.123 m².K/W with air films R 0.29 m².K/W iii) RW200C – element R 0.153 m².K/W with air films R 0.32 m².K/W iv) RW256S – element R 0.192 m².K/W with air films R 0.36 m².K/W v) RW275S – element R 0.205 m².K/W with air films R 0.38 m².K/W vi) RW300S – element R 0.223 m².K/W with air films R 0.39 m².K/W</p> <p>b) All wall types have a surface density greater than 220kg/m².</p> <p>In NSW, applicable to class 1, 2, 4 and 10 where the development consent requires either:</p> <ul style="list-style-type: none"> • a BASIX Single Dwelling or Multi Dwelling Certificate 3.0 or earlier or • a BASIX Alteration and additions Certificated 	Class 1, 2, 4 and 10
	<p>21) General</p> <p>Rediwall PVC formwork will remain serviceable against deterioration for at least 100 years against the following exposure environments:</p> <p>a) Acid sulphate soils. b) Carbonation. c) Salt attack.</p>	Class 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

Internal wall applications within the scope of this certificate are as follows:

- Non-loadbearing fire-resisting internal walls
- Loadbearing fire-resisting internal walls
- Non-loadbearing non-fire-resisting internal walls
- Loadbearing non-fire-resisting internal walls
- Separating walls in Class 1 buildings
- Non-loadbearing fire walls
- Loadbearing fire walls
- Internal service shaft wall (inner face of the shaft wall)
- Internal lift shaft wall (inner face of the shaft wall)
- Internal walls in fire isolated exits
- Internal walls in fire-control rooms

External wall applications within the scope of this certificate are as follows:

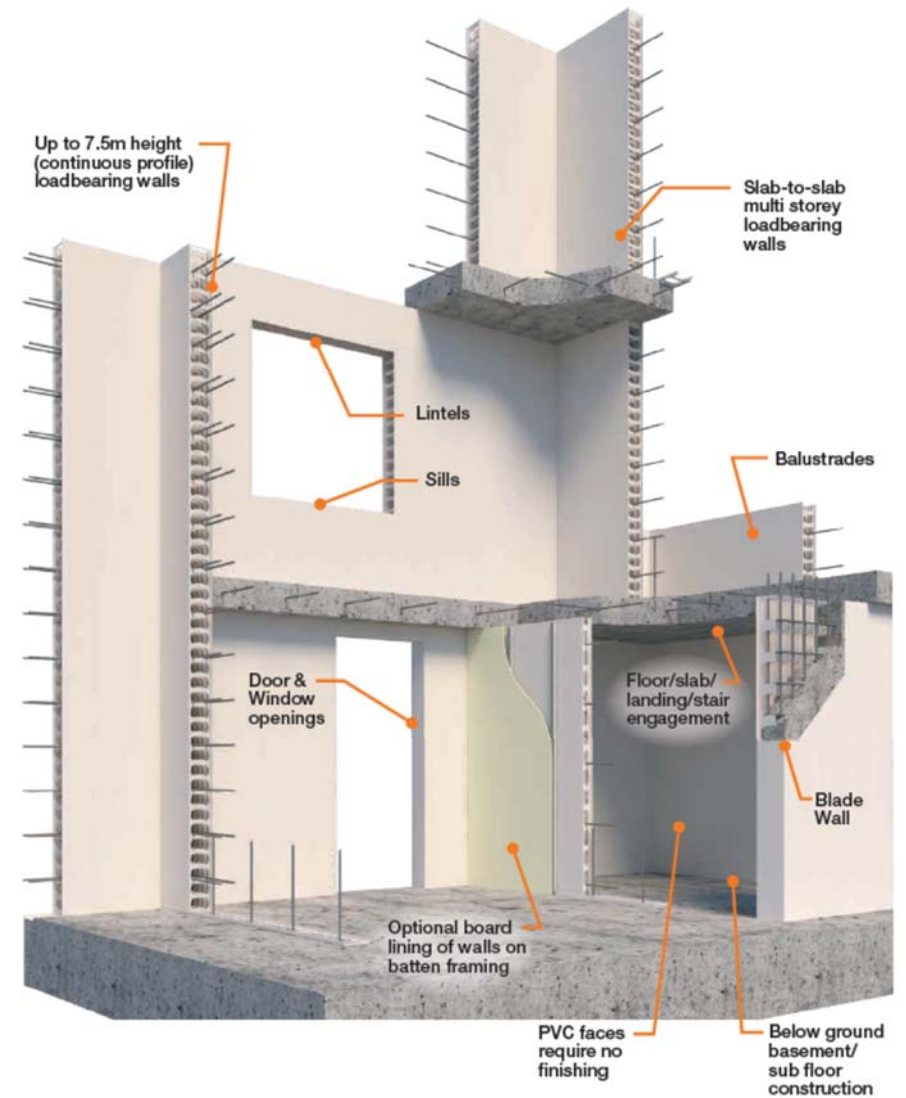
- Non-loadbearing fire-resisting external walls
- Loadbearing fire-resisting external walls/spandrels
- Non-loadbearing non-fire-resisting external walls
- Loadbearing non-fire-resisting external walls/spandrels
- External walls above fire exits
- Retaining walls (external face of panel)
- External walls less than 2m above ground level
- Boundary wall

A2 Description of product

Figure to right provides example applications of the AFS REDIWALL® system.

The basic wall configuration is left unclad, but a range of finishing options as described below are available:

- Unclad and PVC left in place.
- Cement render or similar non-combustible render finish over unclad Rediwall.
- Plasterboard lining directly affixed to surface of unclad Rediwall.
- Plasterboard lining affixed to unclad Rediwall using cold-formed steel furring channels.
- Face brick with inner Rediwall skin forming a cavity wall.
- Mechanically fixed tile systems (<math><32 \text{ kg/m}^2</math>) to unclad Rediwall.



- g. Mechanically fixed non-combustible cladding plus adhesive to unclad Rediwall.
- h. Direct-stick non-combustible cladding plus adhesive to unclad Rediwall
- i. Glue-fixed tile systems (<32 kg/m²) plus adhesive to unclad Rediwall.
- j. Waterproof membrane attached to external face of Rediwall.

A3 Product specification

Product selection, and incorporation into the building design, shall be made by a professional Architect or Engineer or other appropriate person who:

- Has qualifications and experience acceptable to the relevant approval authorities; and,
- Has ready access to:
 1. AFS Rediwall Volume 1 – Design, Performance & Compliance Guide, May 2023 Edition;
 2. AFS Rediwall Volume 2 – Wall Construction Detailing & Finishing Treatment Guide, May 2023 Edition; and,
 3. AS 3600:2018 (incorporating Amendment 1 and 2).

A4 Manufacturer and manufacturing plant(s)

AFS Systems – 110 Airds Road, Minto, NSW, 2566

Tel: 1300 727 237

Email: afssales@csr.com.au

A5 Installation requirements

Only to be installed under the supervision of a suitably qualified tradesperson (such as, but not limited to a Certificate III in Concreting, Certificate III in Formwork/Falsework, or equivalent) in accordance with:

- Relevant project specific Engineering & Architectural plans, detailing & specification documentation, and
- AFS Rediwall Volume 1 – Design, Performance & Compliance Guide, May 2023 Edition, and
- AFS Rediwall Volume 2 – Wall Construction Detailing & Finishing Treatments Guide, May 2023 Edition, and
- AFS Rediwall Volume 3 – Installation Guide, May 2023 Edition.

It is the sole responsibility of the installer of the AFS REDIWALL® system to ensure that its installation carried out complies with the above requirements, and to provide written confirmation to the Certificate Holder that the installation works carried out have complied to the above requirements.

The construction shall include the following:

- Temporary bracing of the formwork systems as specified by the project structural engineer.
- Coating or linings in accordance with the AFS Rediwall Volume 2 – Wall Construction Detailing and Finishing Guide, March 2021 Edition, including adherence with the specified inspection and maintenance program for the site location.

A6 Other relevant technical data

Referenced documents within the technical literature identified in Appendix A, A3 and Appendix A, A5.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

The following assessment methods have been used to determine compliance with NCC 2022

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
NCC Volume One			
C1P1	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 2, 3, 4, 5, 6, 7, 24, 25 and 27
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
C1P2	Volume One A2G2(2)(a)	Volume One A5G3(1) (d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6, 7, 24, 25, 26 and 27
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
C1P3	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6, 7, 24, 25 and 27
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
C1P4	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 4 and 27
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 9
C1P7	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6, 7, 24, 25 and 27
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
F3P1	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Item 12
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 13
F7P2	Volume One A2G2(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 14 to 19
	Volume One A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions	Item 22
F7P4	Volume One A2G2(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 14 to 19
	Volume One A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions	Item 21
B1D2	Volume One A2G3(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
B1D3	Volume One A2G3(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
B1D4(b)(i) and (i)	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 23
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
B1D6	Volume One A2G3(2)(a)	Volume One A5G3(1) (f) – Another form of documentary evidence	Item 21

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
Specification 1	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 4, 24, and 25
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
C2D2 / Specification 5	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 2, 3, 4, 5, 6, 7, 24, 25 and 27
C2D11(1)(b)/Specification 7 S7C4	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 4, 24, 25 and 27
C4D15(2)(a)	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 10, 11 and 27
C4D16(1)&(2)	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Item 27
F8D3(1)	Volume One A2G3(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
G5D3	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6 and 7
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
G5D4	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6 and 7
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
J4D6	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
NT F7P2	Volume One A2G2(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 14 to 19
NT F7P4	Volume One A2G2(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 14 to 19
	Volume One A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions	Item 21
WA B1D3	Volume One A2G3(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
NT B1D4(b)(i) & (i)	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 23
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
QLD B1D4(b)(i) & (i)	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 23
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
WA B1D4(b)(i) & (i)	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 23
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
Qld B1D6	Volume One A2G3(2)(a)	Volume One A5G3(1) (f) – Another form of documentary evidence	Item 21
Vic B1D6	Volume One A2G3(2)(a)	Volume One A5G3(1) (f) – Another form of documentary evidence	Item 21
SA C2D2(1),(3)&(4)	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 2, 3, 4, 5, 6, 7, 24, 25 and 27
NSW C2D11(1)(b)	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 4, 24, 25 and 27
NSW G5D3	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6 and 7

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
NSW G5D4	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6 and 7
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
VIC G5D4	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6 and 7
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
TAS Section J (NCC2019 A1 Section J)	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
NSW J4D6	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
NSW Section J (NSW NCC2019 A1 NSW J(A)1.2)	Volume One A2G3(2)(a)	Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
NCC Volume Two and ABCB Housing Provisions			
H2P2	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Item 12
		Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 13
H3P1	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6, 7, 24, 25 and 27
		Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
H4P6	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 14 to 19
		Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
H1D10	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
H7D4	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6 and 7
Specification 1	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 4, 24 and 25
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
2.2.2	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
2.2.3	Volume Two A2G3(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
2.2.4 (c) & (d)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
3.4.1(2)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Item 22
9.3.1(1)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 4, 24, 25 and 27

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
		Volume One A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
9.3.2	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 10, 11 and 27
10.8.1(1)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
13.2.5	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
SA H3P1	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6, 7, 24, 25 and 27
		Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 8 and 9
NT H4P6	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Items 14 to 19
		Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
WA 2.2.3	Volume Two A2G3(2)(a)	Volume One A5G3(1)(f) – Another form of documentary evidence	Item 21
WA 2.2.4 (c) & (d)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
NT 3.4.1(2)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Item 22
Qld H1D10	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
Vic H1D10	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
NSW H7D4	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(d) – Report issued by an Accredited Testing Laboratory	Items 1, 2, 3, 4, 5, 6 and 7
NSW 13.2.5	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
NT 13.2.5	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
TAS Part 13.2 (NCC2019 A1 P2.6.1)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
NSW Part H6 (NSW NCC2019 A1 3.12.1.4)	Volume Two A2G3(2)(a)	Volume Two A5G3(1)(e) – Certificate or report from a professional engineer or other appropriately qualified person	Item 20
		Volume Two A5G3(1)(f) – Another form of documentary evidence	Item 21
Note: The following assessment methods have been used within the professional engineer's report, Item 9:			
	Volume One A2G2(2)(c)	Expert judgement	
	Volume One A2G2(2)(d)	Comparison with the Deemed-to-Satisfy Provisions	

B2 Reports

The following reports have been used as evidence to determine compliance with NCC 2022

Ref	Author	Reference	Date	Description	NATA Registration
1	Warringtonfire	RTF190226 R2.0	31/01/2020	Wall and ceiling lining tested in accordance with AS ISO 9705:2003 (R2016) and AS 5637.1:2015. Test Results: Group number 1; SMOGRA _{RC} = 28.3 m ² /s ² x 1000.	Accreditation No. 3277 Site No. 3270
2	CSIRO – Infrastructure Technologies	Certificate No. 2580 For Test No. FSV 1654	5/09/2014	Certificate of Test – AS 1530, Methods for fire tests on building materials, components and structures, Part 4-2005 – 200mm thick load-bearing Rediwall.	Accreditation No. 165 Corporate Site No.3625
3	CSIRO – Infrastructure Technologies	Assessment Report No. FCO 3399	16/10/2020	The fire resistance of AFS Rediwall load bearing vertical separating element in accordance with AS 1530.4:2014.	Accreditation No. 165 Corporate Site No. 3625
4	AWTA Product Testing	17-003237	21/06/2017	AS/NZS 1530.3:1999 Methods for Fire Tests on Building Materials, Components and Structures – Part 3: Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release – “Rediwall walling system with PVC facing”.	Accreditation No. 1356
5	Exova Warringtonfire	51713900.1	3/11/2017	External Wall reaction to fire testing of a 110mm thick external wall system in accordance with AS5113:2016.	Accreditation No. 3277 Site No. 3270
6	Warringtonfire Tanmay Bhat	51713600 R2.0	17/05/2019	Fire resistance of AFS Rediwall loadbearing wall systems. Assessment of walls for likely FRL in accordance with AS 1530.4-2014.	Accreditation No. 3277 Site No. 3270
7	Warringtonfire	SFC 51713600.2	17/05/2019	The fire resistance performance of AFS Rediwall loadbearing wall systems if tested in accordance with AS1530.4-2014.	Accreditation No. 3277 Site No. 3270
8	Stephen Grubits & Associates Carlos Quaglia	2013/277.65 R2.4	5/11/2020	Assessment Summary for SGA Report Number 2013/277.65 R1.4 – CSR Rediwall compliance with CP1 and CP2.	N/A
9	Stephen Grubits & Associates Carlos Quaglia	2013/277.78 R1.6	12/02/2021	Rediwall CodeMark Certification – For CodeMark Evaluation.	N/A
10	CSIRO – Infrastructure Technologies Chris Wojcik	FSV 2094	21/05/2020	Fire-resistance test on services penetrating vertical separating elements	Accreditation No. 165 Corporate Site No.3625
11	CSIRO – Infrastructure Technologies Keith Nichols	FCO-3380 Rev E	19/10/2020	The fire resistance of AFS Rediwall and AFS Logicwall including various service penetrations in accordance with AS 1530.4-2014 and AS 4072.1-2005 Amdt 1.	Accreditation No. 165 Corporate Site No.3625
12	CSIRO – Infrastructure Technologies S J Smith	HHI 2817A	13/10/2015	Assessment of the CSR AFS REDIWALL polymer-based permanent formwork system for resistance to water penetration, tested to parts of ASTM E514/E514M-14a and AS/NZS 4347.1-1995.	N/A

Ref	Author	Reference	Date	Description	NATA Registration
13	Xavier Knight	220912 Revision 02	17/04/2023	Weatherproofing Assessment – AFS Logicwall and Rediwall	N/A
14	Acoustic Logic Justin Leong	20181292.1/1801A/R0/JL	18/01/2019	AFS Rediwall 156mm Base Wall – Acoustic Performance Opinion – AFS7001.	N/A
15	Acoustic Logic Justin Leong	20181292.1/1801A/R0/JL	18/01/2019	AFS Rediwall 200mm Base Wall – Acoustic Performance Opinion – AFS8001.	N/A
16	Acoustic Logic Justin Leong	20181292.1/1801A/R0/JL	18/01/2019	AFS Rediwall 256mm Base Wall – Acoustic Performance Opinion – AFS9001.	N/A
17	Acoustic Logic Justin Leong	20181292.1/1801A/R2/JL	18/01/2019	AFS Rediwall 110mm Base Wall – Acoustic Performance Opinion – AFS6001.	N/A
18	Acoustic Logic George Wei	20181292.5/2004A/R1/GW	20/04/2020	275mm thick AFS Rediwall – Acoustic assessment	N/A
19	Acoustic Logic George Wei	20181292.5/2004A/R2/GW	20/04/2020	300mm thick AFS Rediwall – Acoustic assessment	N/A
20	James M. Fricker Pty Ltd James Fricker	107wRW01_RediwallC&S_(bare)v3_JMF	21/04/2020	“Total R” Thermal Performance Calculations to AS/NZS 4859.1 2018 –RW110C, RW156C, RW200C, RW256S, RW275S and RW300S.	N/A
21	AFS Systems Pty Ltd	BMS1668 0419 – RED00038 AUG20	August 2020	AFS Rediwall Design, Performance & Compliance Guide	N/A
22	ExcelPlas Pty Ltd	8248	20/03/2019	Technical Report on the Durometer Hardness Measurement of Polymer Samples	Accreditation No. 17149 Site No. 18750
23	Mahaffey Associates Pty Ltd Ben Sabaa	BAS/20/L01/20050	16/03/2020	AFS Rediwall PVC Permanent Formwork Durability Assessment	N/A
24	Warringtonfire	RTF 190307	28/01/2020	Wall and ceiling lining tested in accordance with AS ISO 9705:2003 (R2016) and AS 5632.1:2015.	Accreditation No. 3277 Site No. 3270
25	CSIRO	FNE 12656	10/02/2021	Certificate of Test – AS/NZS 1530.3:1999 Methods for fire tests on building materials, components and structures – Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release.	Accreditation No. 165 Corporate Site No. 3625
26	Warringtonfire	RTF200140 ASCR1.0	16/07/2020	Classification of a non-loadbearing external wall system in accordance with AS 5113:2016 Amendment 1	Accreditation No. 3277 Site No. 3270
27	Warringtonfire	FAS190330 Rev3.3	7/10/2021	Fire assessment report – Joints between AFS Rediwalls and other walls to AS1530.4:2014 and AS4072.1:2005	Accreditation No. 3277 Site No. 3270