

Certification Body:					Cert	ificate numb	er: CM40398		
	THIS IS TO CERTIFY THAT								
	Liminal Wall Systems for Internal Walls for Multi Residential use								
ABN: 81 663 250 815 JAS-ANZ Accreditation	Type and/or use of product: Description of product:								
No. Z4450210AK PO Box 273, Palmwoods Qld 4555	Internal Walls in Class 2 – 9 buildings a	nd Separating Wall		all System incorporating 35 and thermal performance		s and proprietary com	ponents providing Str	uctural, fire,	
Australia P: +61 7 5445 2199 COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VAR						ATION(S) BCA 2022			
<u>www.cmicert.com.au</u> office@cmicert.com.au		Volume One		Volume Tw	0				
Countificantes II a Islana	Performance Requirement(s):	B1P1(1),(2)(a), (b),(c),(k) & (l)	Structural reliability	H1P1(1),(2)(a (b),(c),(k) & (stability and resista	nce		
Certificate Holder:	Deemed-to-Satisfy Provision(s):	C2D2(2)	Fire Resistance and Stability – FRL varies, dependant of the configuration of the wall. Refer <i>Limitation and Condition</i>		•		valls - FRL varies, dep r <i>Limitation and Con</i>		
Liminal Wall Systems Pty Ltd		C2D10	Non-combustible building elements – Limited to Liminal only	panel H4D8	Sound insi	ulation requirement	5		
ABN: 22 646 545 137		F7D6	Sound insulation rating of walls						
7/56 Boundary Rd Rocklea QLD 4106	State or territory variation(s):								
Australia	SUBJECT TO THE FOLLO	WING LIMITATI	ONS AND CONDITIONS AND THE PRODUCT TECHN	ICAL DATA IN APPEND	DIX A AND EV	ALUATION STATE	MENTS IN APPEND	DIX B	
Ph: 07 3155 2267	Limitations and conditions:					В	uilding classificatio	on/s:	
<u></u>	 Construction shall be in strict accordance with the Liminal Multi Residential Design Guide Version 3. Compliance with FRL is dependent on the system components being as specified in A2. Any deviation from the tested specimen does not form part of this certificate of conformity. Service penetrations may penetrate the Liminal panel in accordance with the penetrations tested to AS 1530.4, See A3 for a list of tested specimens. Any other penetrations through the Liminal panel are outside of the scope of this certification and a fire engineer must be consulted. The structural claims on this certification are limited to the design specifications, and installation guidelines outlined within the Documents, and design and installation is to be reviewed on a case-by-case basis on every individual project and its site parameters by an appropriately qualified engineer. 								
M			t to these Limitations and Conditions and must be read in			tion below.			
Honor	<i>.</i>	Ę	H-	Date of	f issue:	20/06/2024	۷	JAS-ANZ	
			n Grehan – Unrestricted Building Certifier		f expiry:	20/06/2027	•		



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.

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.

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

Liminal Wall panels are available in two thickness of 35mm and 50mm depending on application and incorporate the following:

1. 35mm or 50mm Liminal recessed panel

2. Liminal gal tracks:

a. Top track 54mm x 36mm x 50mm .55BMT

b. Bottom track 40mm x 36mm x 16mm .55BMT

c. Gas pins 20mm long

3. Selleys:

a. Fireblock PB (red in colour) all rigid joints

b. Fireblock (grey in colour) for all control joints

4. Ecowool Insulation, 90mm x 18kgm³

5. Insulation 25mm x 11kg/m³

6. Insulation pins

7. Joint setting compound, Wunderfixx rapid set

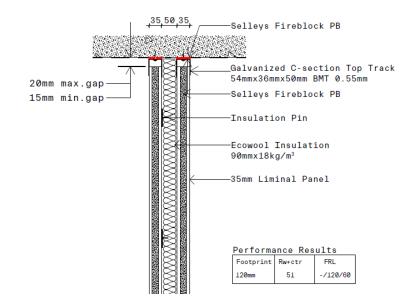
8. Howhua door frame and door (Fire tested approved) See A3.

9. Screws

10. Rondo P35

Panel Properties:

Panel Thickness	35mm			50mm				
Panel Width (mm)	592	592	592	592	592	592	592	
Panel Length (mm)	2600	2800	3000	2800	3200	3500	4000	
Panel m ²	1.54	1.66	1.78	1.66	1.89	2.07	2.37	
Nominal Panel Mass @ 10% MC in KG / m ²	39	39	39	51	51	51	51	
Weight of Panel (kg)	30.00	64.74	69.42	84.66	96.39	105.57	120.87	





A3 Product specification

Fire Resistance and Stability

The Liminal Wall system as well as a series of penetrations have been tested to AS 1530.4: 2014.

Туре	Result		
35mm Liminal Wall panels separated by a 50mm cavity.			
35mm Liminal Wall panels separated by a 50mm cavity with Howhua "Maxi" fire door.			
35mm Liminal Wall panels separated by a 50mm cavity with the following penetrations:			
- PROMASEAL FC40 with 40mm HDPE plumbing pipe	-/120/60		
- PROMASEAL CFC32 with 16mm PEX/AI/PE pipe	-/120/90		
- PROMASEAL CFC32 with 25mm PEX pipe	-/90/60		
- PROMASEAL CFC32 with 16mm PEX pipe	-/90/90		
- PROMASEAL FC80 protecting Aircon Bundle	-/120/60		
- PROMASEAL FC40 protecting a 40mm uPVC Pipe	-/120/90		
- PROMASEAL CFC32 protecting a 20mm uPVC Pipe	-120/60		
- PROMASEAL FC100 protecting a 100mm HDPE Pipe	-/120/90		
- PROMASEAL FC100 protecting a 100mm uPVC Pipe	-120/60		
- PROMASEAL FC50 protecting a 50mm uPVC Pipe	-/120/60		
- PROMASEAL FC65 protecting a 65mm uPVC Pipe	-/120/90		
- Metal Pipe 20 mm protected by PROMASEAL SupaWrap	-/120/90		
- PROMASEAL FC80 protecting a 80mm uPVC Pipe	-/120/90		
- Electrical Cables on 300 mm Wide Cable Tray with PROMASEAL Bulkhead Batt & PROMASEAL SupaWrap	-/90/30		
- PROMASEAL FC100 protecting an Aircon Bundle	-/120/90		
- PROMASEAL A Acrylic Sealant protecting 15 mm OD Fibre Optic Cable	-/120/90		
- PROMASEAL A Acrylic Sealant protecting Electrical Cables (3x Three Core + Earth flat plastic cable)	-/120/60		
- PROMASEAL CFC32 protecting a 32 mm PEX/AI/PE Pipe	-/120/30		
- Communication Cables on 150 mm Wide Cable Tray with PROMASEAL Bulkhead Batt & PROMASEAL SupaWrap	-/90/60		
- PROMASEAL A Acrylic Sealant protecting 50-55 mm bundle of Cat 6/7 Data Cables	-/120/30		
- Rockwool Batt was filled into cavity between the wall panels and plastic power point (socket)	-/120/90		

Source: SIRIM QAS International Sdn.Bhd.; SAMM Accreditation No. 085; Assessment Reports 2022FE0539, 2022FE0710, 2022FE0638, 2022FE0561 & 2022FE0639.



Discontinuous Construction

The Liminal Wall Systems for Internal Walls for Multi Residential system can be used wherever Discontinuous construction is required by the NCC.

Non-combustibility

The certificate holder has provided the Certificate of Test for Combustibility for Materials in accordance with AS 1530.1:1994 for Liminal 35mm Byucksan Autoclaved Cement Extrusion (BACE) panel.

The material is **NOT deemed combustible** - Limited to the panel only.

Source: Exova Warringtonfire, Test Report No. RTF220134 dated 31/05/2022.

Sound transmission through walls including in residential care buildings

Tested acoustic ratings of internal (inter-tenancy) wall systems:

Party Wall System	Wall Structure • 35 mm Autoclaved cement extrusion panel (37.7kg/m²)		C _{tr}
Option 1			
Option 2	 35 mm Autoclaved cement extrusion panel (37.7kg/m²) 50 mm cavity filled with 90mm Ecowool insulation (18kg/m³) 35 mm Autoclaved cement extrusion panel (37.7kg/m²) 	55	-4
Option 3	 35 mm Autoclaved cement extrusion panel (37.7kg/m²) 70 mm cavity filled with 90mm Ecowool insulation (18kg/m³) 35 mm Autoclaved cement extrusion panel (37.7kg/m²) Includes 60 mm HardieFire rockwool insulation to corner (830 mm x 420 mm) for future GPOs. No penetrations. 	54	-4
Option 4	 35 mm Autoclaved cement extrusion panel (37.7kg/m2) 70 mm cavity filled with 90mm Ecowool insulation (18kg/m3) 35 mm Autoclaved cement extrusion panel (37.7kg/m2) Includes 60 mm HardieFire rockwool insulation to corner (830 mm x 420 mm) with one GPO penetration each side of wall (300 mm offset). 	54	-4

Source: Resolute Testing Laboratories, NATA Accreditation No. 20089, Report Nos. AC-PR162A-SA-01, AC-PR162B-SA-01 & AC-PR162C-SA-01.

A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact the Certificate Holder for details.

A5 Installation requirements

Only to be installed in accordance with Liminal Multi Residential Design Guide Version 3.



A6 Other relevant technical data

Calculated Thermal results

Calculated Thermal ratings of Liminal Low Rise External Wall system:

Panel Thickness	35 mm		
Thermal Conductivity	0.25 w/Km		
Calculated R Value	0.14 (m²K)/W		

Source: Residential Energy Assessments Pty Ltd, Report: 24367 Dated 05/06/2024.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

- 1. Structural Provisions A5G3(1)(e). Reports from a professional engineer.
- 2. Fire Safety Provisions A5G3(1)(d). Reports from Accredited Testing Laboratories.
- 3. Acoustic Provisions A5G3(1)(d). Reports from Accredited Testing Laboratories.

B2 Reports

- 1. Macstructure Pty Ltd, Report Number 200803 dated 24/05/2022. This document contributes compliance for B1P1(1),(2)(a), (b),(c),(k) & (I) & H1P1(1),(2)(a), (b),(c),(k) & (I)
- 2. SIRIM QAS International Sdn.Bhd., SAMM Accreditation No. 085, Report Number 2022FE0539 dated 4/07/2022. This document provide compliance for C2D2(2) & H3D4.
- 3. SIRIM QAS International Sdn.Bhd., SAMM Accreditation No. 085, Report Number 2022FE0539-S1 dated 8/12/2022. This document provide compliance for C2D2(2) & H3D4.
- 4. SIRIM QAS International Sdn.Bhd., SAMM Accreditation No. 085, Report Number 2022FE0710 dated 30/11/2022. This document provide compliance for C2D2(2) & H3D4.
- 5. SIRIM QAS International Sdn.Bhd., SAMM Accreditation No. 085, Report Number 2022FE0638 dated 10/11/2022. This document provide compliance for C2D2(2) & H3D4.
- 6. SIRIM QAS International Sdn.Bhd., SAMM Accreditation No. 085, Report Number 2022FE0561 dated 13/10/2022. This document provide compliance for C2D2(2) & H3D4.
- 7. SIRIM QAS International Sdn.Bhd., SAMM Accreditation No. 085, Report Number 2022FE0639 dated 7/11/2022. This document provide compliance for C2D2(2) & H3D4.
- 8. WarringtonFire Australia Pty Ltd, NATA Accreditation No. 3277, Report Number RTF220134 dated 31/05/2022. This document provide compliance for C2D10.
- 9. Resolute Testing Laboratories, NATA Accreditation No. 20089, Report Number AC-PR162A-SA-01 dated 20/6/2022. This document provides the acoustic value of the Liminal Wall panel.
- 10. Resolute Testing Laboratories, NATA Accreditation No. 20089, Report Number AC-PR162A-SA-01 dated 20/6/2022. This document provide compliance for F7D6 & H4D8.
- 11. Resolute Testing Laboratories, NATA Accreditation No. 20089, Report Number AC-PR162A-SA-01 dated 20/6/2022. This document provide compliance for F7D6 & H4D8.

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