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THIS TO CERTIFY THAT

**Low Rise Multi Residential
 Hebel PowerPanel⁵⁰ Intertency Wall System**

Type and/or use of product:

Low Rise Multi Residential Intertency Walls.

Description of product:

Hebel PowerPanel⁵⁰ Intertency Wall System for load bearing and non-load bearing intertenancy / party walls in low rise multi-residential projects. This wall configuration consists of Hebel (non-load bearing) PowerPanel⁵⁰ panels installed vertically and secured to the structural load bearing frame. The system utilises an aluminium bracket system which provides the wall with a discontinuous construction for acoustic performance.

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

BCA 2016

	Volume One	Volume Two	
Performance Requirement(s)	BP1.1(a)&(b)(i) (ii)(iii)	Structural reliability	P2.1.1(a)&(b)(i) (ii)(ii) Structural reliability and resistance to actions
	FP5.2	Sound insulation rating of walls (can be used in conjunction with other building elements to achieve minimum sound insulation ratings)	P2.4.6 Sound Insulation - (can be used in conjunction with other building elements to achieve minimum sound insulation ratings)
	FP5.5		
Deemed-to-Satisfy Provision(s):	Spec C1.1	Fire Resistance - (Maximum of up to 90/90/90 between each occupancy)	3.7.1.8 Fire Separation - Fire Resistance (Maximum of up to 90/90/90 between each occupancy)
State or territory variation(s):	Not Applicable		NT P2.4.6 Sound Insulation - (can be used in conjunction with other building elements to achieve minimum sound insulation ratings)


John Thorpe - CMI


Don Grehan – Unrestricted Building Certifier

Date of issue: 24/09/2018

Date of expiry: 2/03/2021



Certificate of Conformity

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. This system is suitable for use for the horizontal fire separation between fire compartments in sole-occupancy units only and must not be used for the support of fire rated floors, ceilings or roofs.
2. An FRL of 60/60/60 applies to installations using horizontal joints in the panel in accordance with Figure 3.3.4.3 – 3.3.4.4 and vertical joints in accordance with 3.3.4.5 detailed in the Low Rise Multi-Residential PowerPanel⁵⁰ Intertenancy and Dual Zero Boundary Walls - Design and Installation Guide Version: [HELIT152FEB18](#).
3. Penetrations for service installations must comply with Clause C3.15 in Volume 1 of the BCA for Class 2 to 9 buildings.
4. Penetrations for service installations for Class 1 buildings must be confirmed by a qualified Fire Engineer.
5. Structural adequacy of the framing must be confirmed by a professional Structural Engineer.
6. The overall wall height limit is a maximum of 7.2m.
7. Only to be installed in accordance with the Low Rise Multi-Residential PowerPanel⁵⁰ Intertenancy and Dual Zero Boundary Walls - Design and Installation Guide Version: [HELIT152FEB18](#).
8. The Hebel PowerPanel⁵⁰ Intertenancy Wall System is structurally adequate to support minimum Ultimate Limit State pressure of 0.5 kPa and imposed wind loads of wind categories N1, N2 and N3 only.
9. This Certificate is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate is outside of this document's scope and the installation of the certified product/system will not be covered by this CodeMark certification. This may result in the product being classified as a non-conforming building product/system.

Building classification/s:

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. 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.

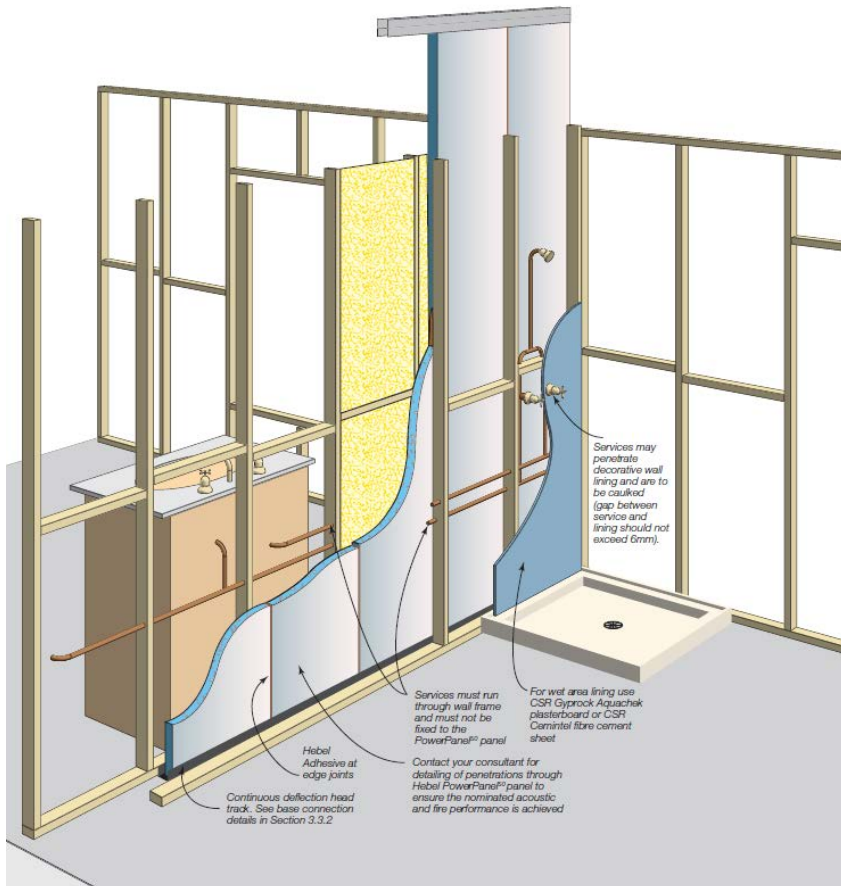
APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

As per page one.

A2 Description of product

Figure 3.3.1.1 Typical layout of PowerPanel[®] Intertency Walls



A3 Product specification

Inter-tenancy Wall System

Product	Description												
Hebel PowerPanel ⁵⁰ panel	<p>The core component of PowerPanel⁵⁰ Intertency Wall Systems comprise a 50mm thick, steel mesh reinforced Hebel PowerPanel⁵⁰ panel. The panel is manufactured in a range of stock sizes as detailed below:</p> <table border="1"> <thead> <tr> <th>Length (mm)</th> <th>Width (mm)</th> <th>Weight (kg) at 35% M.C.</th> </tr> </thead> <tbody> <tr> <td>2400</td> <td>600</td> <td>50</td> </tr> <tr> <td>2700</td> <td>600</td> <td>56</td> </tr> <tr> <td>3000</td> <td>600</td> <td>62</td> </tr> </tbody> </table> <p>Note: Average panel weight calculated at 35% moisture content.</p>	Length (mm)	Width (mm)	Weight (kg) at 35% M.C.	2400	600	50	2700	600	56	3000	600	62
Length (mm)	Width (mm)	Weight (kg) at 35% M.C.											
2400	600	50											
2700	600	56											
3000	600	62											
Hebel Deflection Head Track	For positioning and restraining the base connection of the panels at ground level.												
Hebel Wall Brackets	The brackets are proprietary components which enable the Hebel PowerPanel ⁵⁰ to be fixed to the wall frame. This provides a cavity space, which can result in increased acoustic insulation performance. The bracket is nominally 75mm x 40mm x 1.6mm x 50mm wide aluminium angle. Used in 50mm Hebel Intertency Discontinuous Wall Systems.												
Hebel Adhesive	Hebel Adhesive (supplied in 20kg bags) is used for bonding the panels together at vertical joints.												
Hebel Mortar	Hebel Mortar (supplied in 20kg bags) is used to provide a level base for panel installation as well as providing acoustic and fire protection at the base of the panels. Used in some PowerPanel ⁵⁰ Intertency Discontinuous Wall base arrangements.												
Hebel Patch	Minor chips or damage to PowerPanel ⁵⁰ panels are to be repaired using Hebel Patch (supplied in 10kg bags).												
Hebel anti-corrosion protection paint	To coat exposed reinforcement during cutting.												
Bradford Insulation	The PowerPanel ⁵⁰ Intertency Discontinuous Wall System incorporates Bradford Insulation materials.												
Gyprock™ Plasterboard	The PowerPanel ⁵⁰ Intertency Discontinuous Wall System incorporates Gyprock™ plasterboard on both sides. The type, thickness and densities of plasterboard will be as per the specified wall requirements. Additional information is available from CSR Gyprock.												

Fire & Acoustic Sealant

To attain the specified FRL and / or R_w requirements, all perimeter gaps and penetrations must be carefully and completely sealed with a fire and acoustic rated sealant installed to manufacturer's specifications.

Backing Rod

Backing rod is used to enable correct filling of joints with sealant. It is recommended that backing rod be of open cell type to enable sealant to cure from behind. The diameter of backing rod must be appropriate for the width of the gap being filled.

A4 Manufacturer and manufacturing plant(s)

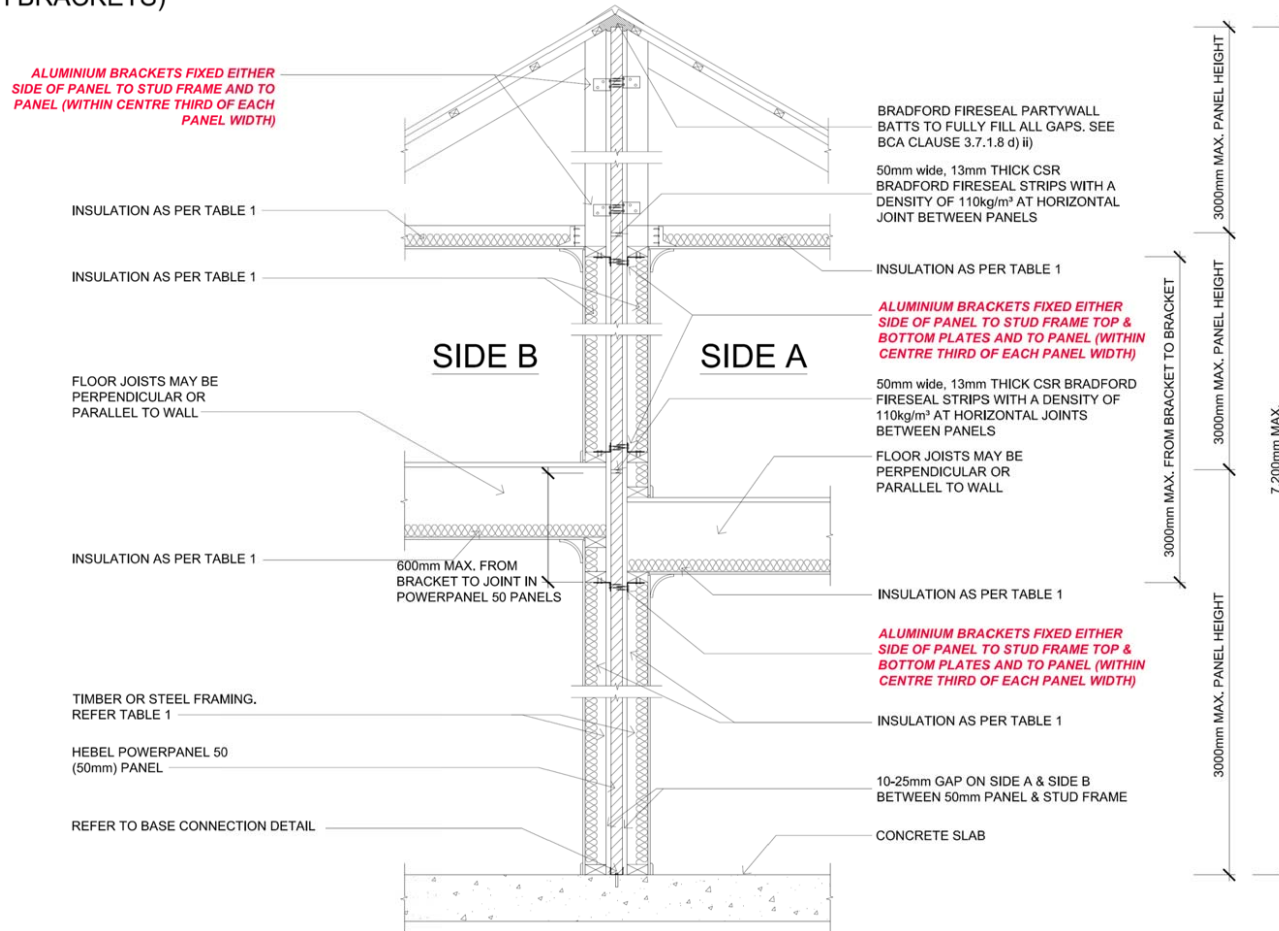
CSR HEBEL
112 Wisemans Ferry Road,
SOMERSBY NSW 2250.

A5 Installation requirements

1. Only to be installed in accordance with Low Rise Multi Residential PowerPanel⁵⁰ Intertency and Zero Boundary Walls Design and Installation Guide Version: [HELIT152FEB18](#).
2. The overall wall height limit is 7.2m for the PowerPanel⁵⁰ Intertency Discontinuous Wall System. The wall shall be constructed of Hebel PowerPanel⁵⁰ of 3000mm maximum length.
3. The wall framing presented in the Low Rise Multi Residential PowerPanel⁵⁰ Intertency and Zero Boundary Walls Design and Installation Guide Version: [HELIT152FEB18](#) for various wall systems are nominated for the acoustic and fire performance values. It is the designer's responsibility to determine an appropriate wall framing system to satisfy structural adequacy. Earthquake loading has not been considered in this design guide. It is the designer's responsibility to ensure the connection system has adequate capacity to resist any imposed earthquake loading.

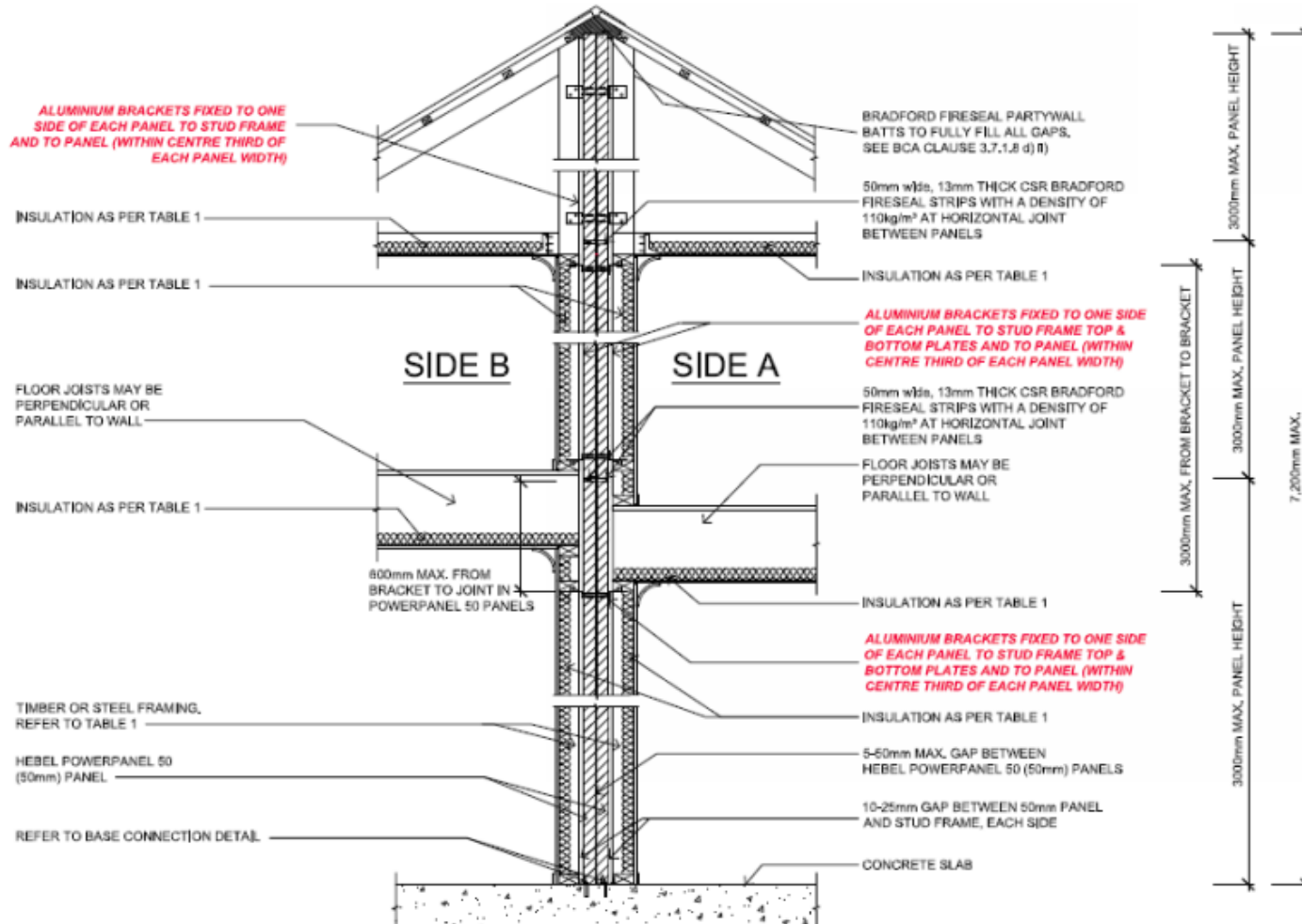
Single PowerPanel⁵⁰ Intertency Wall System

1 BRACKETS)



Source: CSIRO; NATA #165; Assessment Report FCO-3255 Revision D; Dated 17/10/2017.

Double PowerPanel⁵⁰ Intertency Wall System



Source: CSIRO; NATA #165; Assessment Report FCO-3255 Revision D; Dated 17/10/2017.

A6 Other relevant technical data

System	Application of FRL	Maximum Aluminium Clip Spacing Ground Floor/ Other	Maximum Height of Wall	FRL
Single Panel System	Between each occupancy	2.95m/3.0m	7.2m	60/60/60
Single Panel System	Between each occupancy	2.95m/3.0m	7.2m	90/90/90
Double Panel System	Where a property boundary exists between the panels of the double panel systems, each half of the wall on each side of the boundary will achieve the stated FRL from the direction of the boundary.	2.95m/3.0m	7.2m	90/90/90

Source: CSIRO; NATA #165; Assessment Report FCO-3255 Revision D; Dated 17/10/2017.

Acoustic Performance:

CSR (HEB) Wall System Code	Stud Depth		Cavity Insulation	Wall Lining Both Sides	R _w /R _w + Ctr Stud Depth	
					70mm	90mm
PowerPanel ⁵⁰ Panel	70mm	90mm	NIL – Both sides		38/28	39/29
	70mm	90mm	90mm Bradford Gold Batt R2.0 – both sides	1 layer of 10mm Gyprock™ plasterboard (light weight 5.7Kg/m ²)	56/45	58/47
	70mm	90mm	Martini Prime ^ MSB3 (70mm) MSB5 (90mm)- both sides – both sides		55/44	57/46
			Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides			
	70mm	90mm	NIL – Both sides	1 layer of 13mm Gyprock™ plasterboard	38/29	40/31
	70mm	90mm	90mm Bradford Gold Batt R2.0 – both sides	(standard)	61/47	64/50
	70mm	90mm	Martini Prime ^ MSB3 (70mm) MSB5 (90mm)- both sides – both sides		60/46	63/49

			Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides			
PowerPanel ⁵⁰ Panel	70mm	90mm	NIL– Both sides	1 layer of 13mm Gyprock™ Soundcheck or 10mm Superchek	39/30	40/31
	70mm	90mm	90mm Bradford Gold Batt R2.0 – both sides		64/50	67/52
	70mm	90mm	Martini Prime ^ MSB3 (70mm) MSB5 (90mm)- both sides – both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		63/49	66/51
	70mm	90mm	NIL– Both sides	1 layer of 10mm Gyprock Aquachek	38/29	40/31
	70mm	90mm	90mm Bradford Gold Batt R2.0 – both sides		61/47	64/50
	70mm	90mm	Martini Prime ^ MSB3 (70mm) MSB5 (90mm)- both sides – both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		60/46	63/49
	70mm	90mm	NIL– Both sides	1 layer of 9mm Cemintel Fibre cement sheet	39/30	40/31
	70mm	90mm	90mm Bradford Gold Batt R2.0 – both sides		64/50	67/52
	70mm	90mm	Martini Prime ^ MSB3 (70mm) MSB5 (90mm)- both sides – both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		62/49	66/52

NOTE:

The acoustic performance opinions presented in the tables above are made on the following basis:

- 10mm separation between the frame and the Hebel Panel.
- Stud spacing of 450mm for 10mm Gyprock plasterboard and 600mm stud spacings for all other wall linings
- The caulking compound shall be Acrylic sealants i.e. CSR Fireseal or an approved equivalent, or polyurethane sealants.
- Good quality installation practices including the sealing of all junctions and joints and maintaining specified clearances.
- The systems are installed with all junctions acoustically sealed so that negligible sound transmission occurs at these points.
- All services penetrations and the like are acoustically sealed and treated so that negligible sound transmission occurs through these points.
- The opinions are only valid for the thicknesses and densities of insulation.
- Flanking paths are eliminated and the structures into which the systems are installed can allow the nominated rating to be achieved.
- It is also noted that steel stud structures with the same dimension shall provide higher R_w and $R_w + C_{tr}$ ratings.

Source: Acoustic logic report 20140366.35/2710A/R5/GW 27/10/2017

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Fire Assessment - A2.2 (a)(i) & and 1.2.2 (a)(i). Reports from accredited test laboratories.
2. Acoustic Performance - A2.2 (a)(iii) & and 1.2.2 (a)(iii). Reports from Professional Engineers.
3. Structural Provision - A2.2 (a)(iii) and 1.2.2 (a)(iii). Reports from accredited Professional Engineer.
4. Structural Provision - A2.2 (a)(i) and 1.2.2 (a)(i). Reports from accredited test laboratories.

B2 Reports

- a. CSIRO; NATA #165; Assessment report FCO-3255 Revision D; Dated 17/10/2017.
- b. Acoustic Logic report 20140366.35/2710A/R5/GW; Dated 27/10/2017.
- c. Pace Structural; File No. PS18022; Structural Design Certificate; Dated 28/02/2018.
- d. BEMAC Laboratories; NATA #1393; Full Panel Bending Test 2700x600x50mm panel report 10953 dated 06/03/2017.
- e. BEMAC Laboratories; NATA #1393; Full Panel Bending Test 3000x600x50mm panel report 10953 dated 04/05/2017.

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