

K8



SUPAPANEL®



FIRE CERTIFICATE & PERFORMANCE SUMMARY DATA



the next generation of aerated panels





TEST CERTIFICATE

No. 0001

This is to certify that the specimen described below was tested by the Passive Fire Inspection and Test Services Ltd - PFITS Laboratory in accordance with AS 1530.4-2014 - Method for fire tests on building materials, components and structure - Part 4: Fire-resistance tests for elements of construction, Walls - Vertical separating elements, on behalf of:

Wall Technologies P/L, 2 Sunset drive, Kilsyth South, Victoria, Australia, 3137

The tested product:

Supapanel 0.3mm metal clad panels filled with a 320kg/m³ lightweight cementitious core. Panels are 3m long x 350mm cover (420mm wide including tongue) with a custom-made tongue and groove vertical joint.

The tested specimen:

3000mm high x 3000mm wide x 62mm thick prefabricated non-loadbearing wall system made of vertical Supapanel panels with special top sealing section.

The test results:

Actual Integrity	Actual Insulation	FRL
188 NF	62	-/180/60

NF - no failure during the test

THIS CERTIFICATE IS PROVIDED FOR GENERAL INFORMATION ONLY AND DOES NOT COMPLY WITH THE REGULATORY REQUIREMENTS FOR EVIDENCE OF COMPLIANCE.

A full description of the test specimen and the complete test results are detailed in the Tests Report PF19066.

Issued by

Alexey Kokorin
Technical Manager

Date: 5th of February 2020



TEST CERTIFICATE

No. C23046

This is to certify that the specimens described below were tested by the FireTS Laboratory - Passive Fire Inspection and Test Services Ltd – Accreditation No 1335 - in accordance with AS 1530.4-2014 – Method for fire tests on building materials, components and structure – Section 3 – Walls. Vertical separating elements, on behalf of:

Wall Technologies Pty Ltd

Kilsyth South, Victoria, 3137, Australia

Separating element description:

Nominal 3m high x 3m wide x 72mm thick prefabricated non-loadbearing wall system made of vertical Supapanel panels with special joints, head and side track details.

Product description:

Steel Shell 0.35mm BMT Supapanel Panel with lightweight aerated concrete core of 425kg/m³ nominal density with custom-made tongue and groove vertical joint. Width of the panel - 410mm (insert fitted coverage - 350mm).

Test results

Structural adequacy	Not Applicable
Integrity	127 minutes
Insulation	127 minutes
Fire resistance level (FRL)	-/120/120

This certificate is provided for general information only and does not comply with the regulatory requirements for evidence of compliance.

A full description of the test specimen, proposed installation and the complete test results are detailed in the Tests Report PF23046.

Issued by

Alexey Kokorin
Technical Manager

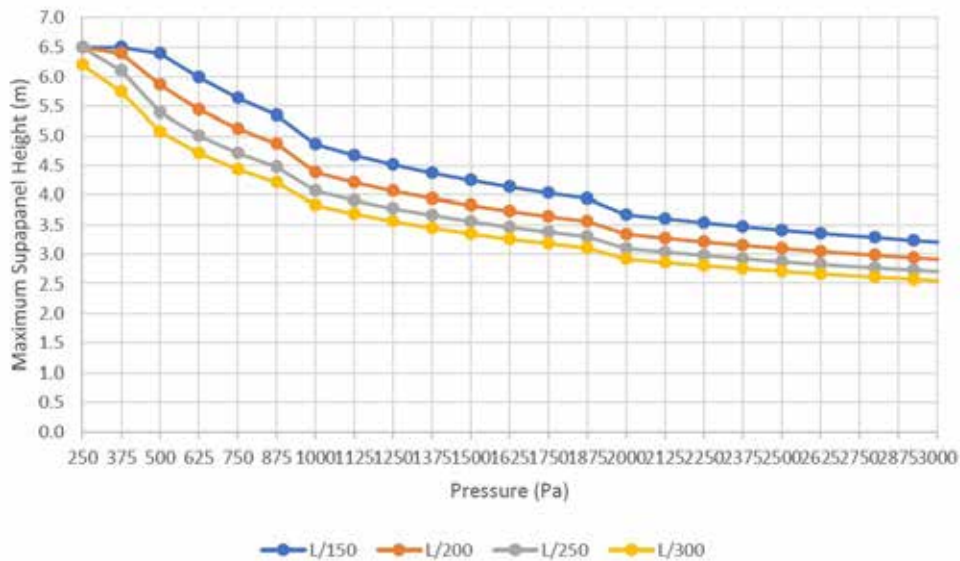
Date: 13th of September 2023

Technical Data Wind Loads

72mm wind load span charts as per Robert Bird Engineering

Note: Full report requires verification before of project application

Pressure (Pa)	Maximum Supapanel Height (m)			
	L/150	L/200	L/250	L/300
250	6.5	6.5	6.5	6.2
375	6.5	6.4	6.1	5.7
500	6.4	5.9	5.4	5.1
625	6.0	5.4	5.0	4.7
750	5.6	5.1	4.7	4.4
875	5.4	4.9	4.5	4.2
1000	4.9	4.4	4.1	3.8
1125	4.7	4.2	3.9	3.7
1250	4.5	4.1	3.8	3.6
1375	4.4	3.9	3.7	3.4
1500	4.2	3.8	3.6	3.3
1625	4.1	3.7	3.5	3.3
1750	4.0	3.6	3.4	3.2
1875	3.9	3.6	3.3	3.1
2000	3.7	3.3	3.1	2.9
2125	3.6	3.3	3.0	2.9
2250	3.5	3.2	3.0	2.8
2375	3.5	3.2	2.9	2.8
2500	3.4	3.1	2.9	2.7
2625	3.4	3.0	2.8	2.7
2800	3.3	3.0	2.8	2.6
2925	3.2	2.9	2.7	2.6
3050	3.2	2.9	2.7	2.5



TEST RESULTS

Air Infiltration Test - Panel Joints Unsealed

Positive Pressure Tests			
Pressure (Pa)	Leakage (L/m ² .s)		
	Chamber & Sample	Chamber	Sample
100	6.70	5.55	1.15
200	10.57	8.61	1.96
300	13.73	10.96	2.77
400	16.54	13.00	3.57
500	18.90	15.05	3.85
600	21.48	16.88	4.60
700	23.72	18.68	5.04
800	25.83	20.46	5.37
900	28.11	22.39	5.73
1000	30.34	23.92	6.42

Negative Pressure Tests			
Pressure (Pa)	Leakage (L/m ² .s)		
	Chamber & Sample	Chamber	Sample
-100	-6.82	-5.72	-1.10
-200	-10.85	-8.71	-2.14
-300	-13.87	-11.01	-2.86
-400	-16.61	-13.03	-3.58
-500	-18.85	-14.89	-4.06
-600	-21.01	-16.46	-4.55
-700	-23.38	-17.89	-5.49
-800	-25.33	-19.39	-5.94
-900	-27.30	-20.85	-6.45
-1000	-29.29	-22.27	-7.02

Air Infiltration Test - Panel Joints Sealed

Positive Pressure Tests			
Pressure (Pa)	Leakage (L/m ² .s)		
	Chamber & Sample	Chamber	Sample
100	5.57	5.55	0.02
200	8.64	8.61	0.03
300	11.01	10.96	0.05
400	13.06	13.00	0.06
500	15.13	15.05	0.08
600	16.99	16.88	0.11
700	18.80	18.68	0.12
800	20.60	20.46	0.14
900	22.56	22.39	0.17
1000	24.10	23.92	0.18

Negative Pressure Tests			
Pressure (Pa)	Leakage (L/m ² .s)		
	Chamber & Sample	Chamber	Sample
-100	-5.74	-5.72	-0.02
-200	-8.75	-8.71	-0.04
-300	-11.08	-11.01	-0.07
-400	-13.11	-13.03	-0.08
-500	-15.01	-14.89	-0.12
-600	-16.61	-16.46	-0.15
-700	-18.05	-17.89	0.16
-800	-19.58	-19.39	-0.19
-900	-21.06	-20.85	-0.21
-1000	-22.50	-22.27	-0.23

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Report Distribution:

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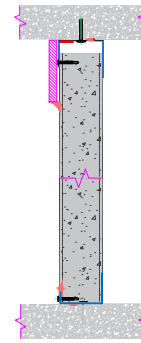
D. Dubout

Derek Dubout 22 June 2020
 Authorised Signatory

Figure 5: Test results

Sound Insulation Test Results:

Job Title: K8 Australia testing
Job No: 20200246
Client: K8 Australia
Test Date: 16/03/2020
System: Bare 64mm panel

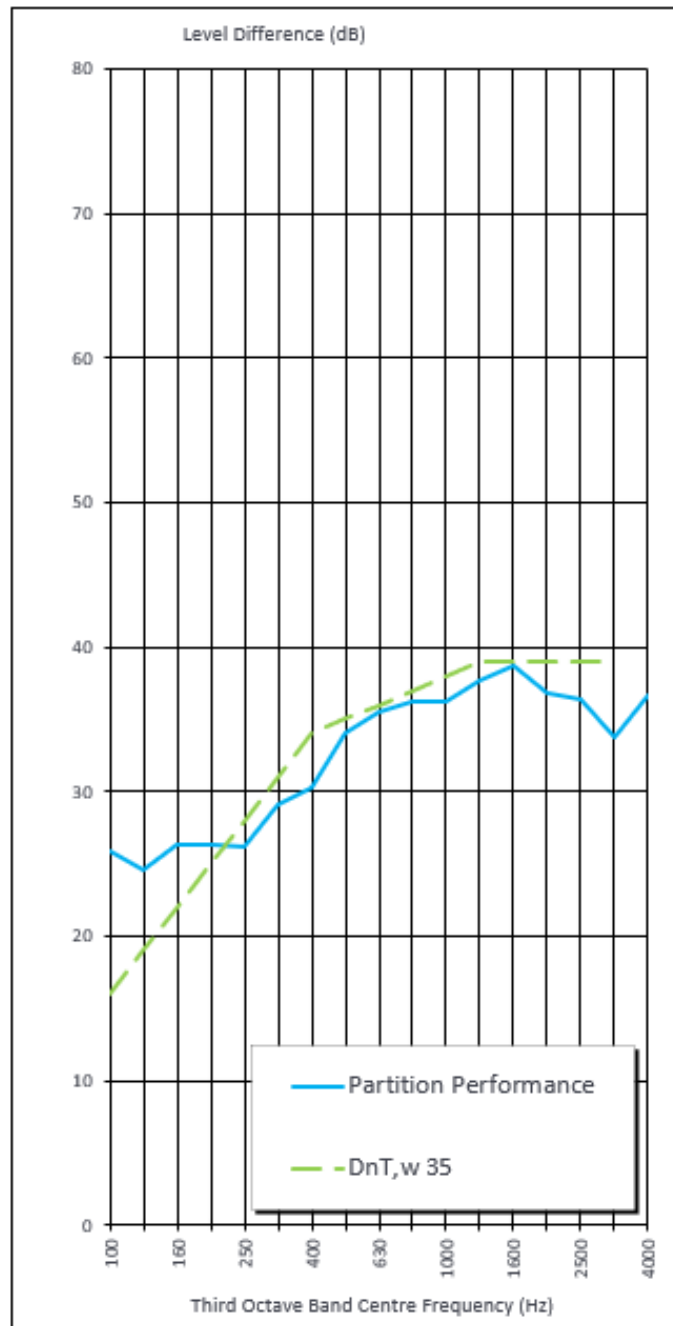


Frequency (Hz)	DnT* (dB)	Adverse Deviation (dB)	Receiving RT (s)
50			
63			
80			
100	25.9		0.8
125	24.5		0.9
160	26.4		0.7
200	26.4		0.6
250	26.1	1.9	0.7
315	29.1	1.9	0.6
400	30.2	3.8	0.6
500	34.1	0.9	0.5
630	35.5	0.5	0.5
800	36.2	0.8	0.5
1000	36.2	1.8	0.5
1250	37.7	1.3	0.6
1600	38.8	0.2	0.7
2000	36.8	2.2	0.7
2500	36.4	2.6	0.9
3150	33.8	5.2	0.8
4000	36.7	-	0.9
Sum of Adverse Deviations			23.0

* **Bold** results indicate limits of measurement due to background noise

DnT,w	35
C _{r,100-3150}	
C _{tr,100-3150}	-2

- 64mm thick
- 380kg/m³ density
- 0.35mm thick steel skins



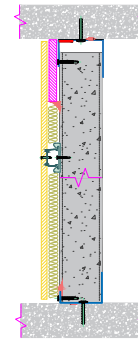


Figure 5: Sound Insulation Test Results:

Job Title: K8 Australia testing

Job No: 20200246

Client: K8 Australia

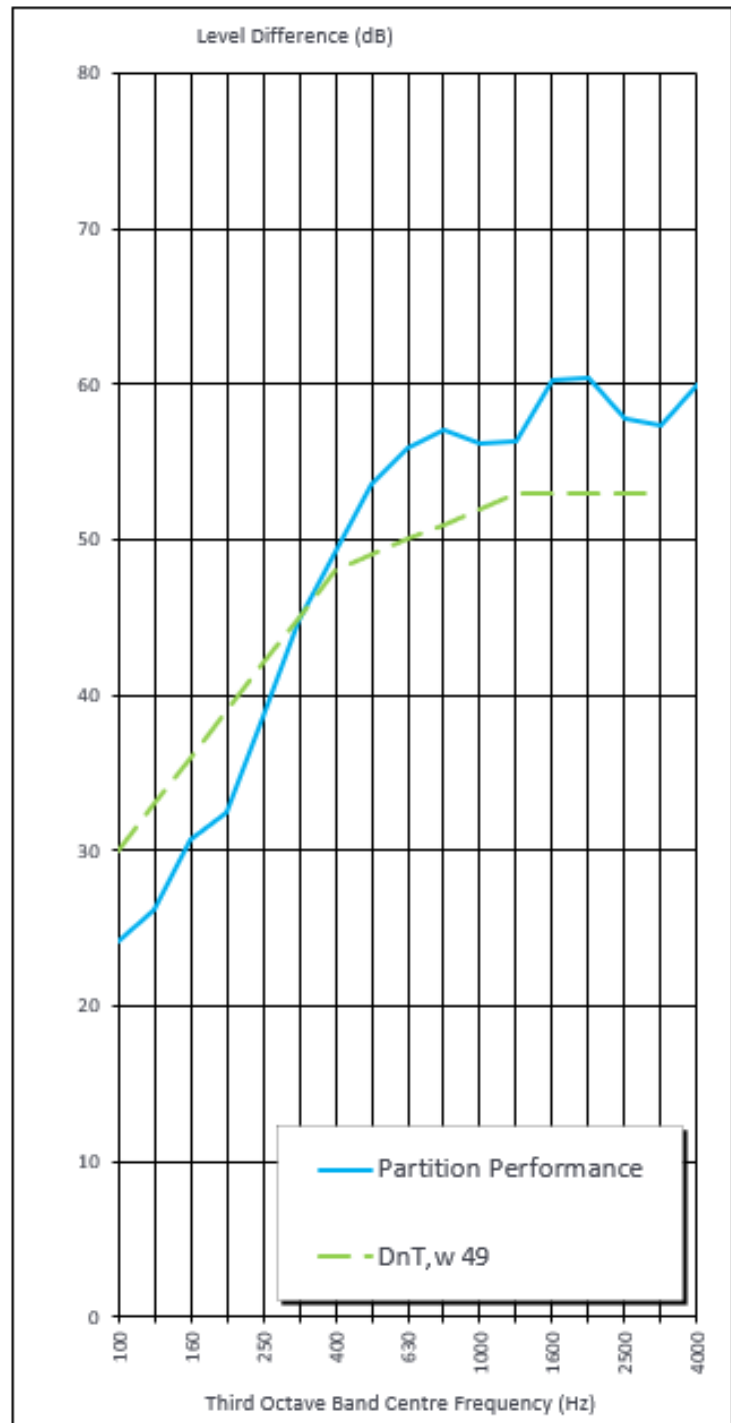
Test Date: 31/03/2020

System: SHAFT WALL SYSTEM 2A - 13mm Knauf Fireshield + 28mm gap + 25/18 Bradford ins + 64mm wall

Frequency (Hz)	DnT* (dB)	Adverse Deviation (dB)	Receiving RT (s)
50			
63			
80			
100	24.1	5.9	0.8
125	26.1	6.9	0.7
160	30.6	5.4	0.7
200	32.5	6.5	0.5
250	38.6	3.4	0.6
315	44.9	0.1	0.6
400	49.1		0.5
500	53.5		0.4
630	55.9		0.4
800	57.0		0.4
1000	56.1		0.4
1250	56.3		0.4
1600	60.3		0.5
2000	60.4		0.5
2500	57.7		0.4
3150	57.4		0.4
4000	59.9	-	0.4
Sum of Adverse Deviations			28.2

* **Bold** results indicate limits of measurement due to background noise

- 64 mm thick panel (380 kg/m3 density ; 0.35 mm thick steel skins)
- 16 mm batten & clip for 28 mm air-gap
- 25 mm thick 18 kg/m3 Bradford insulation (in 28 mm gap)
- 13 mm Knauf Fireshield (800 kg/m3 density) (source side)



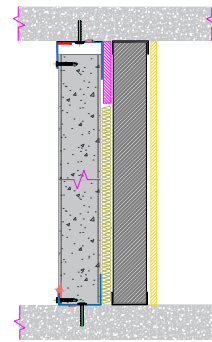


Figure 5: Sound Insulation Test Results

Job Title: K8 Australia testing

Job No: 20200246

Client: K8 Australia

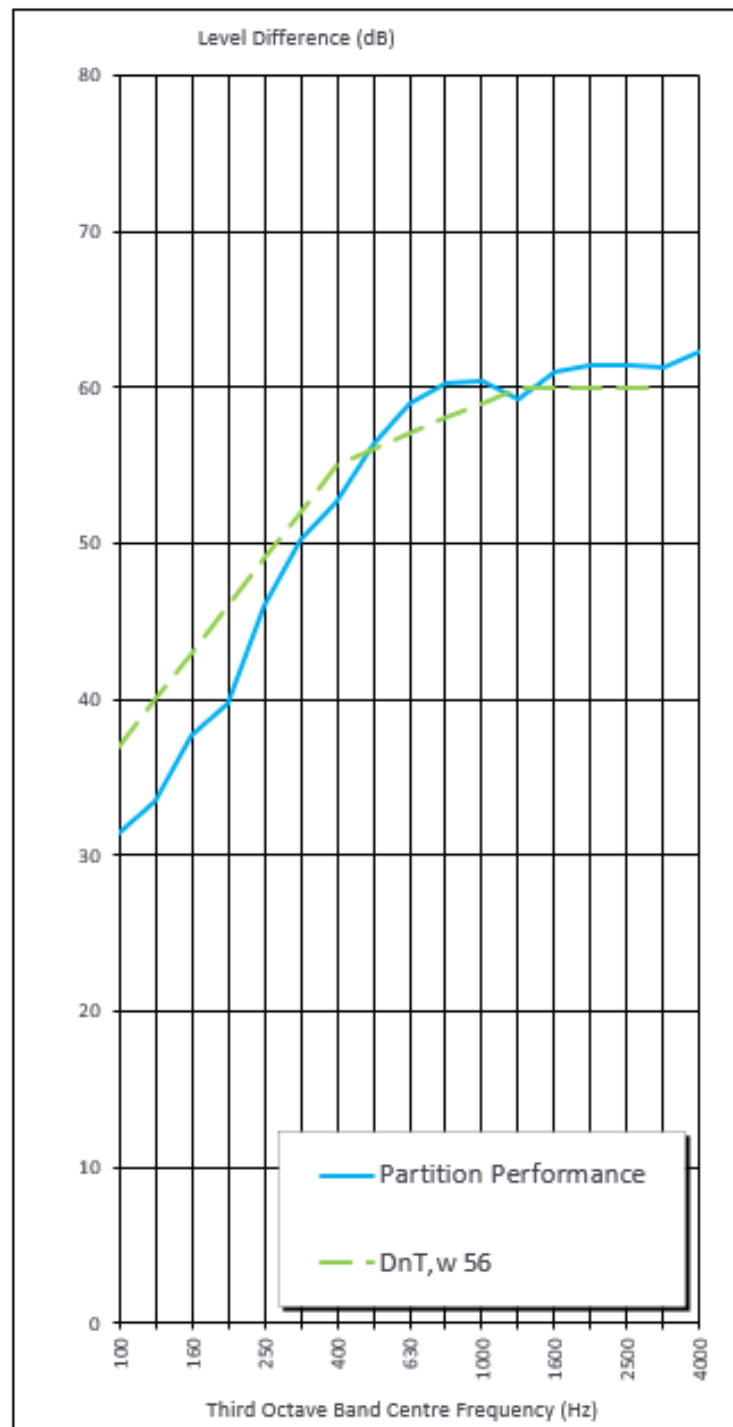
Test Date 26/03/2020

System: SHAFT WALL SYSTEM 3A: 64mm wall + 20mm gap + 51mm stud + 75/14 Bradford gw + 13mm Knauf Re board

Frequency (Hz)	DnT* (dB)	Adverse Deviation (dB)	Receiving RT (s)
50			
63			
80			
100	31.4	5.6	0.8
125	33.5	6.5	0.7
160	37.7	5.3	0.7
200	39.7	6.3	0.5
250	46.0	3.0	0.6
315	50.3	1.7	0.6
400	52.7	2.3	0.5
500	56.3		0.4
630	59.0		0.4
800	60.3		0.4
1000	60.3		0.4
1250	59.3	0.7	0.4
1600	60.9		0.5
2000	61.4		0.5
2500	61.4		0.4
3150	61.3		0.4
4000	62.2	-	0.4
Sum of Adverse Deviations			31.4

* **Bold** results indicate limits of measurement due to background noise

- 13 mm Knauf RE board (650 kg/m3 density) (receiver side)
- 51 mm steel stud
- 75 mm thick, 14 kg/m3 Bradford glasswool insulation
- 20 mm clear gap
- 64 mm thick panel (380 kg/m3 density ; 0.35 mm thick steel skins)



K8 Supapanel Green Sheet

This Document states the green initiatives of K8 Supapanel to achieve Green Star which is an internationally recognized sustainability rating system. As our company works toward Green Star Rating. Our green characteristics demonstrate Innovation, sustainability and recyclability due to:

- ✓ 40% less steel has been used for manufacturing compared to other equivalent system, with 25% of the steel being recyclable.
- ✓ Our panels have a life cycle of minimum 50 years for internal use.
- ✓ For any future renovations or change of planning, our panels can be 100% dismantled and reused.
- ✓ All materials used for production are 100% recyclable.
- ✓ All washing and processed water is recycled and re-purposed in the concrete core.
- ✓ With 425 Density 72mm Panel being the prime product for 2-hour fire-rating (-/120/120). Less materials are used compared to any most conventional systems for the same purpose.
- ✓ Timber used for packaging is encouraged to be sent back for re-purposing and re-using for packaging again.
- ✓ K8 Supapanel uses approximately 60% LESS quarry materials compared to traditional blockworks.



100% reusable



Speedy installation



50 years lifetime



Can be dismantled and re-used

For More Information, feel free to contact us!
K8 Supapanel is the next generation of Aerated panels.



K8  **SUPAPANEL®**

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