

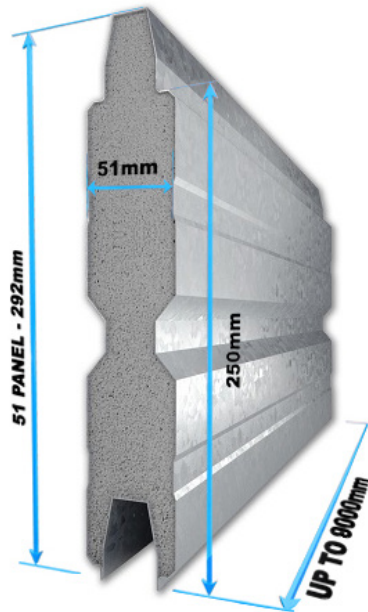
Speedpanel Technical Data Sheet



Speedpanel is an innovative, time saving fire and acoustic rated wall system. The cutting edge pre-fab panel system is comprised of a roll-formed steel outer shell filled with an aerated cement core.

The 51mm thick Speedpanel will achieve an FRL of -/60/60. A highly versatile system, it can be used throughout a variety of applications across multiple building sectors. The lightweight, easy to handle system adds significant value to a building project by improving program speed, and removing unnecessary headaches of noise between tenancies. In addition to providing a small footprint to your floor plan, the wall system remains incredibly strong and secure.

Common applications within high-rise buildings include intertenancy and corridor walls, and shaft and risers. Multi-residential applications such as party walls and boundary walls are also achievable with the 51mm panel.



PANEL PROPERTIES						
Series [^]	435	550	650	750	850	950
Weight per 1m (kg) ^{w1}	7.7	9.0	10.2	11.3	11.9	13.6
Weight per m ² (kg) ^{w2}	30.8	36.2	40.8	45.4	47.7	54.6
Shell material	0.4 BMT galvanised steel					
Core material	Lightweight aerated cement					

WALL SYSTEMS		
Profile		
Fire rating	-/60/60	
Direction of fire rating	Both ways	
Panel orientation	Vertical	Horizontal
Max. span between structural connections	5.0m	3.0m
Max. wall length (single span)	Unlimited	3.0m
Max. wall height (single span)	5.0m	5.0m
Max. wall length (multiple structural connections)*	N/A	Unlimited
Max. wall height (multiple structural connections)**	14.0m	N/A

DESIGN CONSIDERATIONS

Fire	All Speedpanel Systems have been tested to AS1530.4 to determine their fire resistance performance and tested to AS1530.1 to confirm their non-combustible product properties. Speedpanel utilises assessments issued by 3rd party NATA certified test laboratories to extend the scope of application of its tested systems.
Acoustics	Speedpanel Systems have been tested by NATA certified laboratories in accordance with AS 1191 for acoustic ratings of the panels, and by Speedpanel proprietary acoustic systems. Furthermore, all acoustic data has been modelled by qualified acoustic engineers to produce bespoke higher acoustic rating systems.
Wind loading / Deflection	All wind loading deflection testing has been undertaken by NATA registered laboratories in accordance with AS 4040.2-1992 (non-cyclone regions).
Seismic	Speedpanel panels are tested and assessed by accredited laboratories to AS/NZS 1170.0, AS 1170.4 (Australia Earthquake Actions) and AS 1170.5 (New Zealand Earthquake Actions).
Cyclonic	Cyclonic wind load debris testing has been undertaken by James Cook University (Townsville, Australia) in accordance with the guidance of AS/NZS 1170.2 for impact testing of horizontal trajectories. Testing was undertaken for regions, as defined in AS 1170.2, up to region D for a 10,000 year event.
Structural	Speedpanel panels have been subjected to individual structural tests in Column, Flat Beam, Local Loading and Two-Panel Compression modes by accredited 3 rd party structural laboratories based in Australia.
Air Infiltration	Speedpanel can be used as a fire rated pressurised plenum or shaft that needs to be air tight. Panels have been tested in accordance with AS/NZS 4284:2008 using NATA accredited laboratory equipment.

[^] Series label based on 435, 550, 650, 750, 850 & 950 kg/m³ Speedpanel densities, +/- manufacturing tolerances.

^{w1} & ^{w2} Published weight per lineal metre and per square metre values are strictly indicative only. Panel weight subject to change based on, residual moisture, exposure to environmental factors and storage. Speedpanel strongly recommends seeking advice from a suitably qualified professional such as an engineer and/or other design consultant(s) when considering Speedpanel in project design.

* Intermediate fire rated structure between "Max. wall length" panel dimensions.

** Based on 600 kg/m³ density panel core. Reduced density may result in reduced height. For more information please contact our office on +61 3 9115 6666.

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51mm SPEEDPANEL ACOUSTIC SOLUTIONS

System No.	Rw Rating	Net Rw	System Composition	Footprint	Application
SPFT023	DnTw	37	51mm Speedpanel 600kg/m ³ density	51mm	-
SPFT031	DnTw	50	13mm std plasterboard, 16mm furring channel, 51mm Speedpanel 435kg/m ³ density, 30mm air gap, 100mm 14kg/m ³ glasswool insulation, 64mm steel stud, 13mm std plasterboard	187mm	Intertenancy
SP51019	59	50	13mm std plasterboard, 10mm steel batten, 51mm Speedpanel 900kg/m ³ density, 20mm air gap, 51mm steel stud, 75mmx24kg/m ³ glasswool insulation, 13mm std plasterboard	158mm	Intertenancy
SPFT018	DnTw	53	13mm std plasterboard, 16mm furring channel, 51mm Speedpanel 435kg/m ³ density, 50mmx14kg/m ³ polyester insulation, 28mm furring channel on clips to create 40mm cavity, 13mm std plasterboard	133mm	Corridors
SP51005	54	44	51mm Speedpanel 450kg/m ³ density, 20mm air gap, 51mm steel stud, 75mm 24kg/m ³ glasswool insulation, 13mm std plasterboard	135mm	Shafts & Risers
SPFT028	DnTw	48	51mm Speedpanel 600kg/m ³ density, 16mm furring channel, 30mmx14kg/m ³ polyester insulation, 13mm std plasterboard	80mm	Shafts & Risers
SP51014	65	50	10mm std plasterboard, 90mm timber frame, 100mm 32kg/m ³ glasswool infill, 20mm gap, 51mm Speedpanel 450kg/m ³ density, 5mm gap, 90mm timber frame, 10mm std plasterboard	276mm	Party Wall
SP2P019	57	50	51mm Speedpanel 550kg/m ³ density, 45mm air gap, 50mmx24kg/m ³ glasswool insulation, 51mm Speedpanel 450kg/m ³ density	147mm	Plant Room Car Parks

Please visit our website or contact our office for alternative Speedpanel Acoustic Systems: www.speedpanel.com.au

WIND LOADING DATA

Span (m)	ULS	L/150 (Kpa)	L/200 (Kpa)	L/250 (Kpa)	L/300 (Kpa)
2.0	7.66	7.66	6.20	4.96	4.13
2.5	4.90	4.12	3.18	2.54	2.12
3.0	3.40	2.41	1.84	1.47	1.22
3.5	2.49	1.53	1.16	0.92	0.77
4.0	1.91	1.03	0.77	0.62	0.51
4.5	1.50	0.73	0.54	0.43	0.36
5.0	1.22	0.53	0.39	0.31	0.26

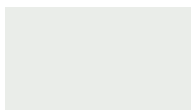
AIR INFILTRATION DATA

Pressure (Pa)	Unsealed (L/m ² .s)	Sealed (L/m ² .s)
+300	0.81	<0.1
-300	-0.85	<-0.1
+750	N/A	+0.1
-750	N/A	-0.1
+1000	N/A	+0.1
-1000	N/A	-0.2
+1500	N/A	+0.2
-1500	N/A	-0.3

SPEEDPANEL COLOUR OPTIONS



EBONY



OFF WHITE



SLATE GREY



GULL GREY



MERINO



A wide variety of colours are available for products within the Speedpanel range. Colour options may incur minimum order quantity requirements, upfront deposit and additional fees. Colours shown above are to be used as a guide only. For exact matching, an official colour swatch from steel manufacturer should be used. Contact Speedpanel for further information.