



Sonic System Acoustic Modular Panel V225

The Science of Silence

PRODUCT OVERVIEW

The Sonic System acoustic modular panel V225 is engineered to provide **simultaneous sound attenuation and sound absorption within a single panel system**, making it suitable for infrastructure noise walls, plant screening, and industrial acoustic enclosures.

The panel incorporates a central solid steel barrier sheet, separated by dual Rockwool absorptive layers and perforated steel faces, enabling the system to reduce transmitted noise while controlling reflected sound energy within enclosed or semi-enclosed environments. Tested in accordance with AS/NZS 1191, with Rw determined in accordance with AS/NZS ISO 717.1, the V225 achieves Rw 24, with transmission loss exceeding 45dB at higher frequencies.

The V225 is suited to external noise barriers and acoustic wall systems where combined absorption and barrier performance are required within a single construction.

KEY FEATURES

- Dual 25mm Rockwool absorptive layers contributing to sound absorption across mid- to high-frequency ranges
- Interlocking modular panel system for rapid installation
- **Customisable panel dimensions** to eliminate on-site cutting
- Fire Performance: Tested in accordance with AS/NZS 1530.3 and AS 1530.4
- Lightweight design at 20.1 kg/m² for easier handling

APPLICATIONS

- Sonic Acoustic Walls for perimeter noise control
- Acoustic Enclosures for machinery and equipment
- Industrial wall linings for manufacturing facilities
- External acoustic noise walls for environmental compliance
- Sound control in resource and utilities infrastructure

TECHNICAL SPECIFICATIONS

Panel construction	Perforated steel faces both sides (38% open area) with central solid steel barrier sheet and dual 25mm Rockwool absorptive layers (total 50 mm)
Standard sizes	Width: 450mm standard Overlap connection: 25mm Thickness: 50mm
Weight	20.1 kg/m ²
Surface finish	Anti-corrosive treatment with epoxy primer, painted finish, available in pre-finished off-white
Customisation	Custom lengths and colours available to meet project requirements
Thermal transmittance	0.77 W/m ² K
Installation	Modular system with steel interlocking joints for quick assembly
Acoustic rating	Rw 24dB determined in accordance with AS/NZS ISO 717.1, NRC 0.80
Fire rating	FRL -/120/- in accordance with AS/NZS 1530.3 and AS 1530.4



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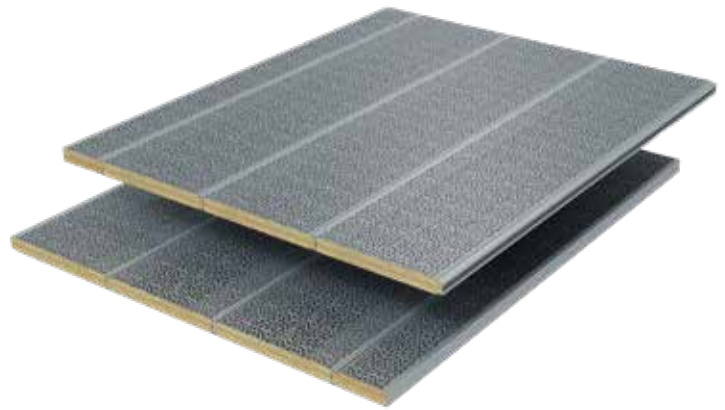
ACOUSTIC PERFORMANCE – SOUND TRANSMISSION LOSS

The V225 panel delivers reliable airborne sound insulation, achieving a Weighted Sound Reduction Index (Rw) of 24dB, tested in accordance with AS 1191-2002, with Rw determined to AS/NZS ISO 717.1.

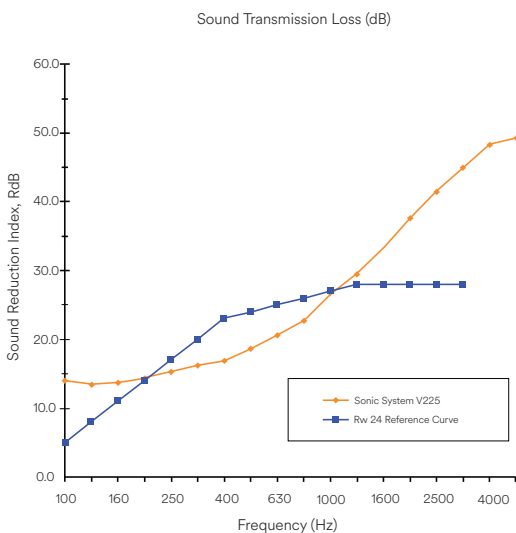
Sound attenuation is achieved through an integrated solid steel barrier core, decoupled by absorptive Rockwool layers on either side. This construction provides effective noise containment while enabling sound absorption on both sides of the panel.

HIGHLIGHTS

- Rw 24dB airborne sound insulation performance
- Integrated solid steel barrier core for effective noise containment
- Perforated steel faces for reverberation control for reverberation control on both sides
- Engineered for dual-function acoustic performance absorption and insulation



TRANSMISSION LOSS CURVE DEMONSTRATING BARRIER PERFORMANCE RISING STEADILY TO MORE THAN 45dB AT HIGH FREQUENCIES.



MEASURED TRANSMISSION LOSS BY 1/3 OCTAVE BAND

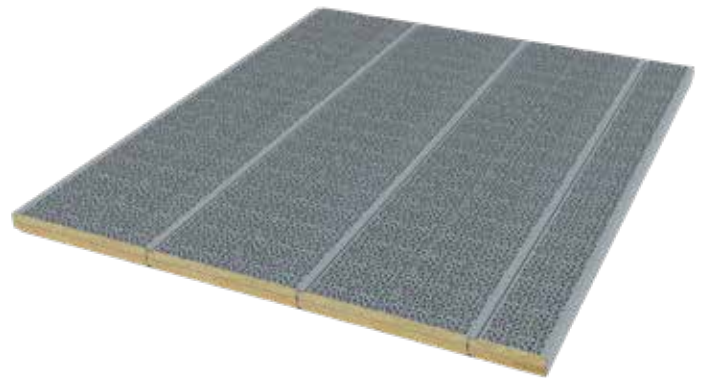
1/3 Octave Centre Frequency Hz	Sound Transmission Loss: R dB	Rw 24 Reference Curve	95% Confidence levels, dB
100	14.0	5	2.8
125	13.4	8	2.6
160	13.7	11	1.6
200	14.4	14	2.2
250	15.3	17	0.9
315	16.3	20	1.5
400	16.9	23	0.7
500	18.7	24	0.9
630	20.6	25	0.6
800	22.8	26	0.9
1000	26.6	27	0.7
1250	29.6	28	0.7
1600	33.3	28	0.6
2000	37.6	28	0.7
2500	41.5	28	0.5
3150	45.0	28	0.6
4000	48.2	-	0.7
5000	49.3	-	0.8

ACOUSTIC PERFORMANCE – SOUND ABSORPTION

The V225 panel achieves effective sound absorption through its 38% perforated internal steel face and two layers of 25mm high-density Rockwool core. Tested in accordance with AS ISO 354, the V225 delivers a sound absorption coefficient (α_s) of 0.80, making it an effective product for controlling reverberation in large industrial spaces while maintaining structural integrity for external wall applications.

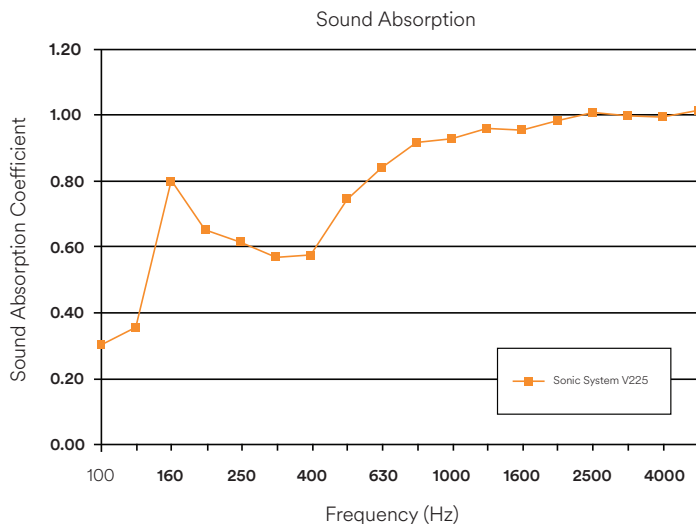
HIGHLIGHTS

- α_s of 0.80
- 50mm core thickness for enhanced low-frequency absorption
- Perforated internal face (38% open area) optimised for sound energy dissipation
- Suitable for industrial environments requiring both sound absorption and environmental durability



Sound absorption performance is achieved through perforated steel faces to both sides of the panel, each backed by a Rockwool absorptive layer.

ABSORPTION CURVE SHOWING STRONG PERFORMANCE ACROSS CRITICAL MID - TO HIGH-FREQUENCY RANGES.



ABSORPTION COEFFICIENTS ACROSS FREQUENCY RANGE

Octave Centre Frequency Bands, Hz	Average RTs for empty room. T60 _s	Average RTs f or room with sample T60 _{est}	Sound Absorption Coefficient α_s	95% Confidence Interval for α_s
100	7.145	5.653	0.30	0.14
125	6.508	5.074	0.35	0.10
160	8.395	4.602	0.80	0.12
200	9.319	5.338	0.65	0.08
250	9.351	5.470	0.62	0.06
315	7.830	5.066	0.56	0.06
400	7.055	4.705	0.57	0.05
500	6.682	4.149	0.74	0.06
630	6.299	3.818	0.84	0.06
800	6.210	3.652	0.92	0.05
1000	5.589	3.415	0.93	0.06
1250	5.122	3.194	0.96	0.04
1600	4.550	2.962	0.96	0.03
2000	4.085	2.729	0.98	0.05
2500	3.622	2.493	1.00	0.04
3150	3.121	2.244	1.00	0.05
4000	2.576	1.942	0.99	0.06
5000	2.193	1.700	1.01	0.12



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STRUCTURAL PERFORMANCE – WIND LOAD RESISTANCE

Panel Support Centres (m)	Maximum Ultimate Wind Load Pressure (kPa)
4.0m	6.0 kPa*
4.5m	4.8 kPa*
5.0m	3.8 kPa*
5.5m	3.1 kPa*
6.0m+	2.5 kPa*

*Certified loading pressure test reports available upon request

COMPLIANCE AND TESTING

- Sound absorption tested in accordance with ISO 354
 - Sound transmission loss tested in accordance with ISO 140-3
 - Fire Performance: Tested to AS/NZS 1530.3 and AS 1530.4
 - All testing conducted by NATA-accredited laboratories.
- Full test certificates available upon request.

ORDERING AND SUPPORT

- Sonic System V225 panels are available in both standard and **fully custom configurations**. From tailored dimensions to project-specific colour finishes, our team will engineer the right fit for your site.
- To discuss your project, contact AcouSTECH and discover how the Science of Silence can work for you.

HOW TO SPECIFY TO FIT YOUR PROJECT

System	Sonic System acoustic modular panel V225
Construction	50mm acoustic panel with solid steel faces, perforated steel faces with central solid steel barrier sheet and Rockwool core
Finish	Corrosion-resistant perforated steel
Acoustic Performance	Rw: 24dB NRC: 0.80



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FIRE SAFETY STANDARDS

FIRE RATING & TESTING COMPLIANCE

Fire Safety Category	Standard/Test Method	Result/Rating	Details
Fire Resistance Level (FRL)	AS 1530.4-2014 (Sections 1, 2 & 3)	-/120/-	<ul style="list-style-type: none"> Structural Adequacy: - (N/A) Integrity: 120 minutes Insulation: - (Not rated)
Ignitability Index	AS/NZS 1530.3:1999 (R2016)	0	Scale: 0-20 (0 = best performance)
Spread of Flame Index	AS/NZS 1530.3:1999 (R2016)	0	Scale: 0-10 (0 = best performance)
Heat Evolved Index	AS/NZS 1530.3:1999 (R2016)	0	Scale: 0-10 (0 = best performance)
Smoke Developed Index	AS/NZS 1530.3:1999 (R2016)	1	Scale: 0-10 (lower = better)
Combustibility	AS 1530.1:1994 (R2016)	Non-Combustible	Rockwool core is inorganic and non-combustible

MATERIAL FIRE PROPERTIES

Component	Material	Thickness/Density	Fire Characteristics
Internal Face	Perforated Steel Sheet	0.50mm (38% FOA)	Non-combustible metal
Core	Rockwool	50mm / 70kg/m ³	<ul style="list-style-type: none"> Non-combustible Inorganic, amorphous Does not contribute significant toxic gases during fire exposure Maintains structural integrity at elevated temperatures
External Face	Solid Steel Sheet	0.70mm	Non-combustible metal
Surface Treatment	Epoxy Primer + Paint	Anti-corrosive coating	Protective coating system

COMPLIANCE & CERTIFICATION

Category	Details
Testing Laboratory	NATA-accredited facilities
Documentation Available	<ul style="list-style-type: none"> Full AS 1530.4-2014 fire resistance certificate AS/NZS 1530.3 test reports Material Safety Data Sheets (MSDS) Fire engineering reports
BCA/NCC Compliance	Suitable for fire-rated partitions and acoustic enclosures (subject to engineering assessment)
Certificate Availability	Full NATA fire test results available upon request



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QUICK REFERENCE SPECIFICATIONS

Category	Specification
Acoustic Absorption	α_s 0.80 (AS ISO 354) NRC: 0.80 - effective absorption across mid- to high-frequency ranges
Acoustic Transmission	Rw 24dB determined in accordance with AS/NZS ISO 717.1
Hydrophobic Rockwool core	Actively repels water on contact. Rain simply beads off and runs away; the core does not absorb or wick moisture.
Inorganic Rockwool	Will not support biological growth even if minor moisture is present (ASTM C1104). Remains clean and stable indefinitely.
Water absorption	0.5kg/m ² (partial immersion test, BS EN ISO 29767) if core is submerged, uptake is negligible and dries out immediately with no long-term retention.
Panel Construction	Perforated steel face: 0.50mm Central: solid steel barrier sheet Rockwool core: 2 × 25mm Perforated steel faces (38% open area)
Standard Sizes	Width: 450mm standard Overlap connection: 25mm Thickness: 50mm
Custom Options	Custom sizes and colours available
Weight	20.1 kg/m ²
Surface Finish	Anti-corrosive treatment with epoxy primer Painted finish Available in pre-finished off-white
Thermal Transmittance	0.77 W/m ² K
Installation	Interlocking modular panel system, screwless assembly
Compliance	AS ISO 354 – Sound absorption AS 1191-2002 – Airborne sound transmission loss AS/NZS ISO 717.1 – Rw determination AS 1170.2 – Wind actions (engineering assessment) AS 1530.1 / AS/NZS 1530.3 – Reaction to fire AS 1530.4-2014 – Fire resistance
Branding	AcousTech part of the Flexshield Group Pty Ltd (ABN 42 631 902 899 ACN 631 902 899)