

Panawall Acoustic Panel System

Perforated wood veneer or HPL acoustic wall panels on pre-engineered aluminum rail and clip hardware.



Panawall® Acoustic HPL panels, Hoover Dam Visitor Center, Boulder City, Nevada. Project installation shown for reference; panel size, reveal width, and cavity build are as specified for that project. The acoustic and non-acoustic Panawall® systems share the same frame and read alike once installed, and the stated NRC 0.90 applies to the tested Type C-90 assembly rather than to this condition.

PRODUCT OVERVIEW

The Panawall Acoustic Panel System comprises factory-fabricated acoustical wall panels consisting of a perforated or grooved wood fiber substrate faced with wood veneer or high-pressure laminate, backed with an acoustically transparent fleece and acoustic infill, installed on pre-engineered aluminum rail and clip hardware directly to studs or a solid substrate. Reference specification: Section 09 8433 - Sound-Absorbing Wall Units. For the non-acoustic framed system, refer to Section 09 7710.

Face dimensions	Nominal 24" x 24" (610 x 610 mm), or as indicated
Panel thickness	3/4" (19 mm)
Open area	Approx. 5% (tested micro-perforated face; 0.5 mm holes at 1.9 mm pitch)
Sound absorption (NRC)	0.90 (NRC), tested assembly; SAA 0.88 (Riverbank RAL-A24-285)

TECHNICAL DATA

PANAWALL ACOUSTIC PANELS TECHNICAL DATA SHEET

Characteristic	Technical data
Substrate	Medium-density fiberboard (MDF) conforming to ANSI A208.2, industrial grade; available comprising not less than 75 percent recycled wood waste, or with No Added Formaldehyde
Perforation pattern	Micro-perforated 0.020" (0.5 mm) diameter holes; perforated 1/8" (3 mm) diameter holes; slotted with solid face reveal; or grooved with concealed perforation, machined through the panel face and substrate
Open area	Approximately 5 percent for the tested micro-perforated face (0.5 mm diameter holes at 1.9 mm pitch). Open area differs for the perforated 1/8 in., slotted, and grooved patterns and is established per pattern.
Acoustic backer	Acoustically transparent non-woven black fleece factory-laminated to the panel back, continuous across all perforations
Acoustic infill	Nominal 1" (25 mm) mineral wool or polyester (PET) batt factory-applied to the panel back; density to be specified
Air cavity	Nominal 1" (25 mm), 2" (51 mm), or 4" (102 mm) behind panels, with cavity insulation as indicated
Wood veneer facing	Real Wood Veneers "AA" architectural-grade veneer, 0.010" to 0.015" (0.25 to 0.38 mm), with furniture-grade catalyzed finish of approximately 0.003" (0.08 mm); balancing backer 0.015" to 0.025" (0.38 to 0.64 mm)
HPL facing	Vertical-grade high-pressure plastic laminate adhered to the perforated substrate, with kraft paper balancing backer
Adhesive	PVA adhesive as recommended by the manufacturer
Horizontal rail	H-HR10A horizontal rail for creating detailed reveals; furnished in full 10 ft (3.05 m) lengths
Panel clip	H-PC-1 panel clip
Reveal tape	H-RT reveal tape
Panel fixings	H-FS-1 panel secure fasteners
Surface burning characteristics	ASTM E84; Class A (Class 1), flame-spread index 25 or less and smoke-developed index 450 or less, or Class C, flame-spread index 76 to 200. Independent test reports to be submitted
Installation tolerance	Maximum 1/16" (1.6 mm) variation between adjacent panels; 1/8" in 8 ft (3 mm in 2.4 m) from level and plumb
Environmental limits	Maintain 60 to 80 °F (16 to 27 °C) and 35 to 55 percent relative humidity during storage, installation, and the product life cycle. Not for exterior, high-humidity, or wet locations. Acclimate 72 hours prior to installation.
Applications	Dry interior walls

Tested configuration. NRC 0.90 applies to the micro-perforated (~5% open) face in the Type C-90 mounting of report RAL-A24-285, which supersedes the earlier RAL-A24-129 (NRC 0.70). The tested specimen shares Panawall Acoustic's perforated wood-fiber substrate; the result applies to both wood veneer and HPL faces. Assemblies using the perforated 1/8 in., slotted, or grooved patterns, or other cavity depths, require their own test data. The superseding test specimen was characterized by the laboratory as press board; confirm the production substrate against this data sheet's stated MDF construction.

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Nominal dimensions: All dimensions shown are nominal. Final product selection and detailing should be confirmed against current production data, project conditions, applicable codes, and installation requirements.

Installation. This data sheet is issued for product selection and design coordination only. **It is not an installation instruction, and nothing on this document is to be used for installation.** Install in accordance with AAPG's current published installation instructions and the approved shop drawings. The dimensions, details, and data shown here describe the product; they do not describe the substrate preparation, sequence, fixings, or tolerances required to install it. Where this sheet and the installation instructions differ, the installation instructions govern.

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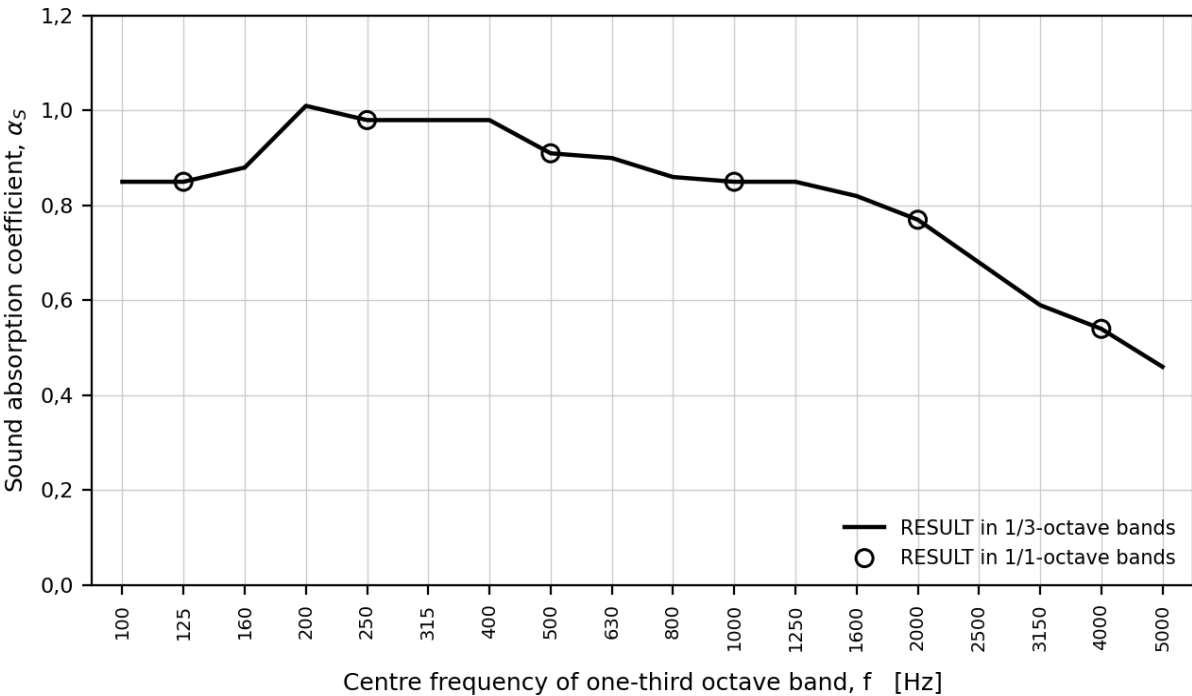
Acoustic Performance

Sound absorption was measured by Riverbank Acoustical Laboratories (Geneva, Illinois; NVLAP Lab Code 100227-0) in accordance with ASTM C423-23, with specimen mounting per ASTM E795-23. Test conducted July 15, 2024; report RAL-A24-285 (which supersedes RAL-A24-129). The tested specimen was a perforated-face acoustic panel on the same 3/4 in. (19 mm) perforated MDF wood-fiber substrate used by Panawall Acoustic (approximately 72 sq. ft. / 6.696 m² calculation area, 0.801 in. / 20.35 mm thick), in the Type C-90 mounting described below. The result applies to both wood veneer and HPL faces on that substrate.

Tested assembly	Mounting	NRC
Perforated MDF acoustic panel (veneer or HPL face) over 3.5 in. (89 mm) stud cavity fully filled with semi-rigid fiberglass insulation	ASTM E795 Type C-90	0.90

Sound Absorption Coefficients

One-third-octave sound absorption coefficients from report RAL-A24-285 (superseding RAL-A24-129). SAA = 0.88; NRC = 0.90. Non-accredited extended-range appendix bands are not shown here.



TEST BASIS

ASTM C423-23 reverberation-room method; ASTM E795-23 Type C-90 mounting. Riverbank Acoustical Laboratories, report RAL-A24-285, conducted July 15, 2024, issued July 22, 2024. Supersedes RAL-A24-129. Instruments in current calibration at test date.

IMPORTANT LIMITATION

Results apply only to the specific sample submitted and the tested Type C-90 mounting. The tested face was the micro-perforated pattern (~5% open); other perforation patterns and cavity depths will perform differently. Panel format and edge treatment do not change the measured absorption, but cavity depth, insulation, and perimeter conditions do. Do not extrapolate to untested assemblies.

Riverbank Acoustical Laboratories is NVLAP-accredited (Lab Code 100227-0). Per the report, it must not be used to claim product certification or endorsement by RAL, NVLAP, NIST, or any U.S. government agency, and must not be modified without RAL's written approval. This data sheet summarizes the report for

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product-selection purposes and does not replace it. SAA is the average of the 200-2500 Hz bands; NRC is the average of the 250, 500, 1000, and 2000 Hz coefficients.