

# NWAA Labs

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## SOUND ABSORPTION TEST REPORT #: NWAB180614-02

Client: Akustus Industries, Inc.  
518 East Kent Avenue South  
Vancouver, BC, Canada, V5X 4V6

Test Date: 14 June, 2018  
Report Date: 14 June, 2018  
Test Specimen: Sereno Panels, 24mm

### INTRODUCTION

The methods and procedures used in this test conform to the provisions and requirements of ASTM Procedure C 423-09a, *Standard Test Method for Sound Absorption Coefficients by the Reverberation Room Method*. Copies of the test standards are available at [www.astm.org](http://www.astm.org). The test chamber is a cuboid, 12.79 m (42.0 ft) long by 10.75 m (35.3 ft) wide by 5.31 m (17.4 ft) high, and volume is 737.4 m<sup>3</sup> (26041.0 ft<sup>3</sup>). There are six fixed surfaces in the reverberation chamber. There are three sources consisting of two dodecahedron loudspeakers mounted in the two upper corners and one sub-woofer located below one of the dodecahedrons. We utilize six Earthworks M-30 Omni directional microphones to gather the data. This test report relates only to the item(s) tested. Any advertisement that utilizes this test report or test data must not imply product certification or endorsement by NWAA Labs and has to include all pages of the report.

### DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of fifteen panel units that were 121.92 cm (48.0 inch) long by 60.96 cm (24.0 inch) wide by 24 mm (0.94 inches) thick. These Sereno Panels were then mounted edge to edge to create a test sample with the overall dimensions of 3.05 m (10.0 ft.) by 3.66 m (12.0 ft.), and an overall weight of 47.7 kg (105.0 lbs.). The sample was positioned on the chamber floor surface in an A mount configuration. (See pictures).

Test results are on the following pages.

Submitted by,  
NWAA Labs Inc



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Ron Sauro  
NWAA Labs Inc



This page by itself does not constitute a full test report Page 2 of 5



This page by itself does not constitute a full test report Page 3 of 5

# NWAA Labs, Inc.

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Test #	NWAB180614-02
Test Date:	14-Jun-18
Mounting per ASTM E795-00:	A Mount
Area Tested: M <sup>2</sup>	11.15
Temperature: °C	21
Barometer: pa	101500
Humidity: %	66

NRC	0.70
SAA	0.67

## AKUSTUS Sereno Panel 24mm

Frequency (Hz)	Absorption Coefficient	Absorption (m <sup>2</sup> )	Absorption (sabins)
40Hz	0.01	0.09	0.90
50Hz	0.00	0.00	0.00
63Hz	0.00	0.01	0.10
80Hz	0.02	0.19	2.10
100Hz	0.00	0.00	0.00
125Hz	0.08	0.88	9.50
160Hz	0.10	1.07	11.50
200Hz	0.14	1.59	17.10
250Hz	0.24	2.72	29.30
315Hz	0.29	3.25	35.00
400Hz	0.41	4.57	49.20
500Hz	0.69	7.69	82.70
630Hz	0.80	8.87	95.50
800Hz	0.87	9.70	104.40
1000Hz	0.94	10.43	112.30
1250Hz	0.96	10.65	114.60
1600Hz	0.94	10.46	112.60
2000Hz	0.88	9.78	105.30
2500Hz	0.86	9.60	103.30
3150Hz	0.85	9.47	101.90
4000Hz	0.79	8.77	94.40
5000Hz	0.80	8.90	95.80
6300Hz	0.89	9.94	107.00
8000Hz	0.90	10.04	108.00
10000Hz	0.93	10.32	111.10

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