

NWAA Labs

90 Tower Blvd, Elma, WA 98541, Phone: (253) 973-1018

Email address: audio_ron@msn.com

SOUND ABSORPTION TEST REPORT #: NWAB150818-01

Client: Acoustic Geometry
123 Columbia Court, Suite 201
Chaska, MN 55318

Test Date: 18 August, 2015
Report Date: 29 September, 2015
Test Specimen: Curve Diffusor, Type A Mount

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. 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 m³ (26041.0 ft³). 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.

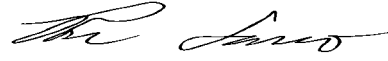
DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of twenty-one acoustic panels. Fifteen of them were large curved units with dimensions of 106.68 cm (42.0 inches) long by 53.34 cm (21.0 inches) long by 17.78 cm (7.0 inches) deep, and 6 of them were small curved units with dimensions of 106.68 cm (42 inches) long by 36.83 cm (14.5 inches) wide by 12.7 cm (5.0 inches) deep. The large unit weighed 9.07 kg (20.0 lbs.) and the small unit weighed 4.99 kg (11.0 lbs.). The overall weight of the sample was 165.99 kg (366.0 lb). According to the manufacturer each unit was a phase-coherent, constant-radius, cylindrical sound diffusor, with a built in MLV membrane low bass absorber. The panels were placed side by side and end to end on a prebuilt plywood mounting panel that was mounted on the fill wall of the transmission loss window that had an overall size of 3.05 m (10.0 ft) by 3.66 m (12.0 ft). (See pictures)

TEST REPORT #: NWAB150818-01 (Cont)

Test results are on the following pages.

Submitted by,
NWAA Labs Inc



Ron Sauro
NWAA Labs Inc

NWAA Labs, Inc.

90 Tower Blvd,
Elma, WA 98541
(253)-973-1018

Test #	NWAB150818-01
Test Date:	18-Aug-15
Mounting per ASTM E795-00:	A Mount
Area Tested: M ²	11.15
Temperature: °C	24
Barometer: pa	101300
Humidity: %	68

NRC	0.25
SAA	0.25

Acoustic Geometry Curve Diffusor			
Frequency (Hz)	Absorption Coefficient	Absorption (m ²)	Absorption (sabins)
40Hz	0.11	1.22	13.20
50Hz	0.49	5.47	58.80
63Hz	0.57	6.36	68.40
80Hz	0.41	4.56	49.10
100Hz	0.13	1.49	16.00
125Hz	0.32	3.55	38.20
160Hz	0.39	4.33	46.60
200Hz	0.45	5.05	54.30
250Hz	0.34	3.77	40.60
315Hz	0.36	4.00	43.10
400Hz	0.43	4.76	51.20
500Hz	0.38	4.28	46.00
630Hz	0.23	2.56	27.60
800Hz	0.20	2.27	24.40
1000Hz	0.15	1.72	18.50
1250Hz	0.15	1.62	17.40
1600Hz	0.10	1.09	11.70
2000Hz	0.08	0.91	9.80
2500Hz	0.09	0.98	10.50
3150Hz	0.05	0.55	5.90
4000Hz	0.06	0.72	7.80
5000Hz	0.04	0.45	4.80
6300Hz	0.08	0.93	10.00
8000Hz	0.10	1.13	12.20
10000Hz	0.23	2.54	27.40

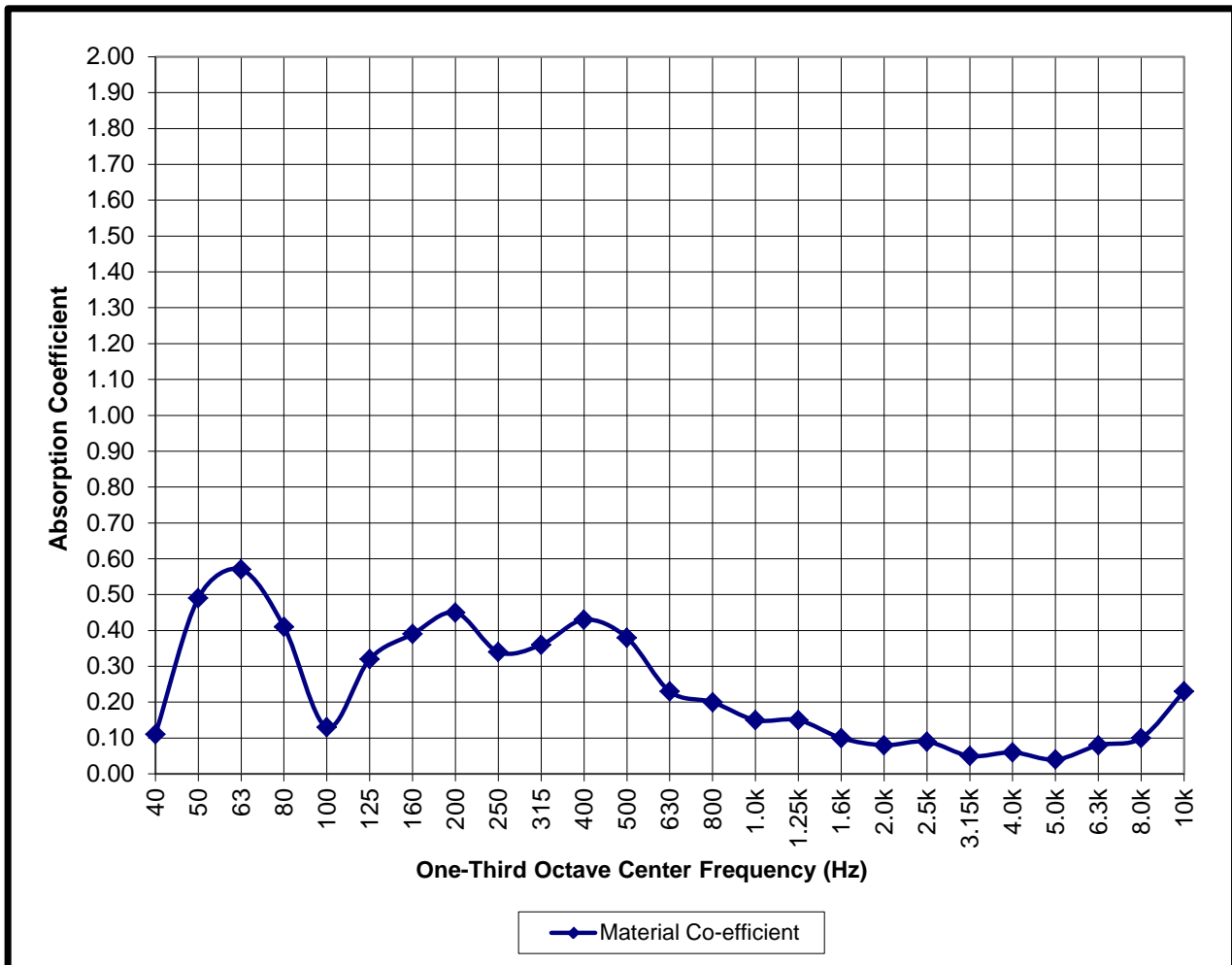
NWAA Labs, Inc.

90 Tower Blvd,
Elma, WA 98541
(253)-973-1018

Test #	NWAB150818-01
Test Date:	18-Aug-15
Mounting per ASTM E795-00:	A Mount
Area Tested: M ²	11.15
Temperature: °C	24
Barometer: pa	101300
Humidity: %	68

NRC	0.25
SAA	0.25

Acoustic Geometry Curve Diffusor





This page by itself does not constitute a full test report. Page 5 of 6



This page by itself does not constitute a full test report. Page 6 of 6