

NWAA Labs

90 Tower Blvd, Elma, WA 98451, Phone: (253) 973-1018
Email address...Audio_Ron@msn.com

SOUND ABSORPTION TEST REPORT #: NWAB150507-07

Client: Poly-Sorb
4813 8th Ave NW
Seattle, WA 98107

Test Date: 07 May 2015
Report Date: 10 June 2015
Test Specimen: Poly-Sorb Baffles, 5.12 cm (2 inch) thick, Charcoal, Mod J 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

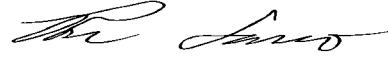
The test specimen consisted of fifteen Poly-Sorb Acoustic Baffles. Each baffle was 121.90 cm (48.0 in) long by 60.95 cm (24.0 in) wide by 5.12 cm (2.0 in) thick. The baffles consist of two exterior layers of 3 mm (0.12 inch), 12 lb density polyester and an interior layer of 44 mm (1.74 inch), 6 lb density polyester, resulting in a 5.12 cm (2 inch) thick panel. Each baffle weighed 3.63kg (8.0lbs). The baffles were mounted using a modified Type J mounting. Units were hung from horizontal cables strung across the room at a height of 5 ft. The cables were not parallel or perpendicular to any side wall surface. The units were hung in an alternating parallel pattern as per the photo. There were three baffles mounted on each cable and were spaced 12 inches between baffles. Five cables were mounted and each cable was separated from the next by a distance of 30 inches. All baffles were hung so that the lower edge was a distance of 3ft above the floor of the chamber. This formed a sample that was roughly a suspended square in space and had total surface area of 27.9 sq meters (300 sq ft). Absorption per unit is reported as per C-423 but client wished an absorption

coefficient to be reported as well. Two coefficients were calculated based on actual surface area and ½ of the surface area to closely duplicate the standard coefficient.

Total weight of the test sample is 29.04 kg (120.0 lbs).

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 #	NWAB150507-07
Test Date:	7-May-15
Mounting per ASTM E795-00:	Mod J Mount
Area Tested: M ²	11.15
Temperature: °C	24
Barometer: pa	101100
Humidity: %	68

NRC	1.20
SAA	1.19

Poly-Sorb 2inch Charcoal, J-Mount

Frequency (Hz)	Absorption Coefficient	Absorption (m ²)	Absorption (sabins)	Absorption Coefficient for EASE (2 coat faces)
40Hz	0.00	0.00	0.00	0.00
50Hz	0.16	1.74	18.70	0.08
63Hz	0.22	2.43	26.20	0.11
80Hz	0.19	2.11	22.70	0.10
100Hz	0.25	2.76	29.70	0.13
125Hz	0.31	3.44	37.10	0.16
160Hz	0.37	4.14	44.60	0.19
200Hz	0.50	5.56	59.90	0.25
250Hz	0.62	6.87	73.90	0.31
315Hz	0.76	8.52	91.70	0.38
400Hz	0.83	9.20	99.10	0.42
500Hz	1.10	12.27	132.00	0.55
630Hz	1.18	13.18	141.80	0.59
800Hz	1.35	15.00	161.50	0.68
1000Hz	1.45	16.22	174.60	0.73
1250Hz	1.61	17.99	193.70	0.81
1600Hz	1.66	18.50	199.10	0.83
2000Hz	1.59	17.73	190.80	0.80
2500Hz	1.60	17.87	192.40	0.80
3150Hz	1.59	17.73	190.90	0.80
4000Hz	1.56	17.41	187.40	0.78
5000Hz	1.49	16.66	179.30	0.75
6300Hz	1.60	17.85	192.20	0.80
8000Hz	1.56	17.41	187.40	0.78
10000Hz	1.46	16.28	175.30	0.73

NWAA Labs, Inc.

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

Test #	NWAB150507-07
Test Date:	7-May-15
Mounting per ASTM E795-00:	Mod J Mount
Number of Units	15
Temperature: °C	24
Barometer: pa	101100
Humidity: %	68

NRC	1.20
SAA	1.21

Poly-Sorb 2inch Charcoal, J-Mount				
Frequency (Hz)		Absorption (m ²) unit	Absorption (sabins) unit	
40Hz		0.00	0.00	
50Hz		0.12	1.25	
63Hz		0.16	1.75	
80Hz		0.14	1.51	
100Hz		0.18	1.98	
125Hz		0.23	2.47	
160Hz		0.28	2.97	
200Hz		0.37	3.99	
250Hz		0.46	4.93	
315Hz		0.57	6.11	
400Hz		0.61	6.60	
500Hz		0.82	8.80	
630Hz		0.88	9.46	
800Hz		1.00	10.77	
1000Hz		1.08	11.64	
1250Hz		1.20	12.91	
1600Hz		1.23	13.27	
2000Hz		1.18	12.72	
2500Hz		1.19	12.82	
3150Hz		1.18	12.72	
4000Hz		1.16	12.50	
5000Hz		1.11	11.96	
6300Hz		1.19	12.81	
8000Hz		1.16	12.50	
10000Hz		1.09	11.69	

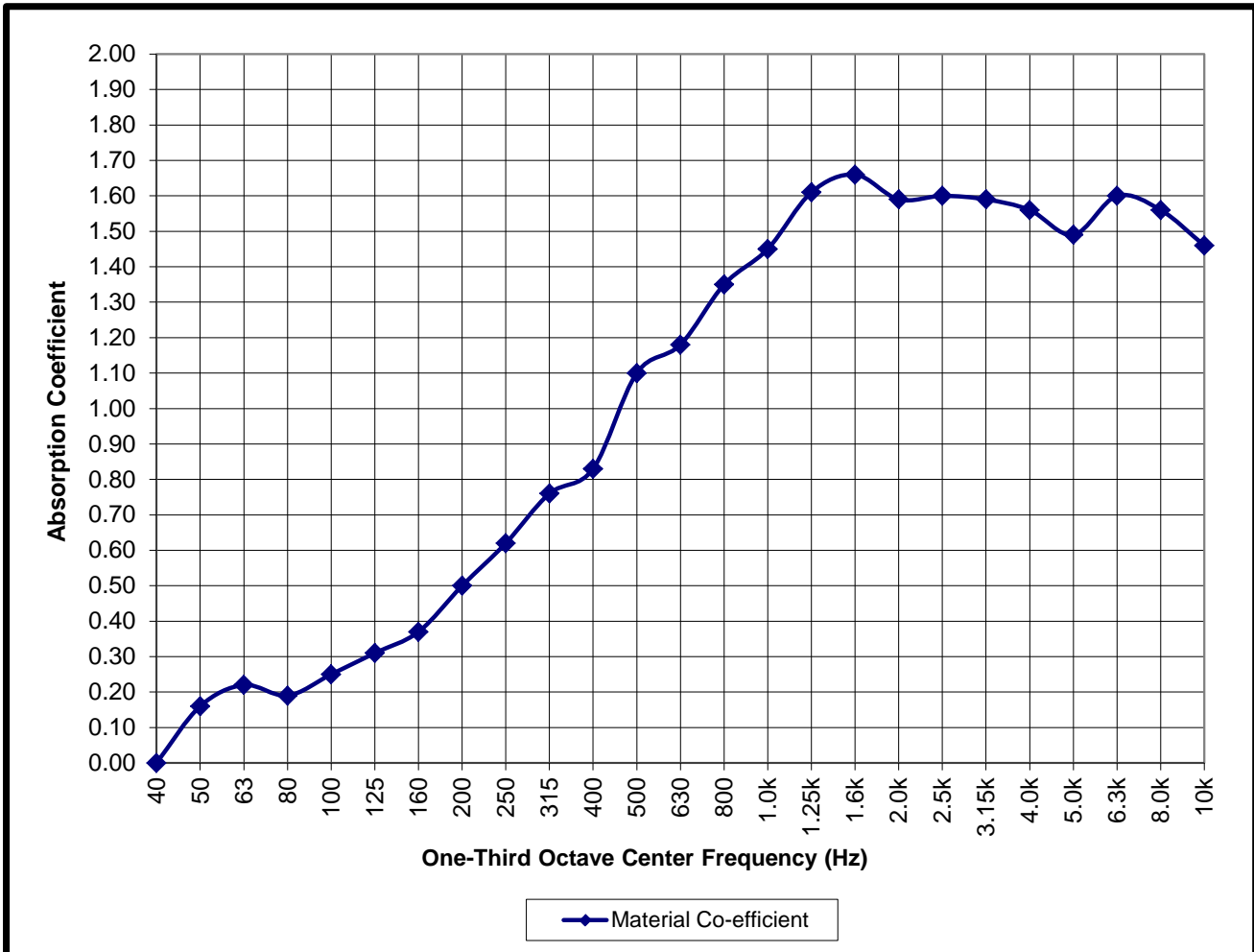
NWAA Labs, Inc.

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

Test #	NWAB150507-07
Test Date:	7-May-15
Mounting per ASTM E795-00:	Mod J Mount
Area Tested: M ²	11.15
Temperature: °C	24
Barometer: pa	101100
Humidity: %	68

NRC	1.20
SAA	1.19

Poly-Sorb 2inch Charcoal, J-Mount





This page by itself does not constitute a full test report. Page 6 of 7



This page by itself does not constitute a full test report. Page 7 of 7