



Title: Sound Absorption Test Results

Product: 1" Microperf

Application: Ceiling or Wall

Testing Standard: ASTM C423-17 (Type F6 Mount)

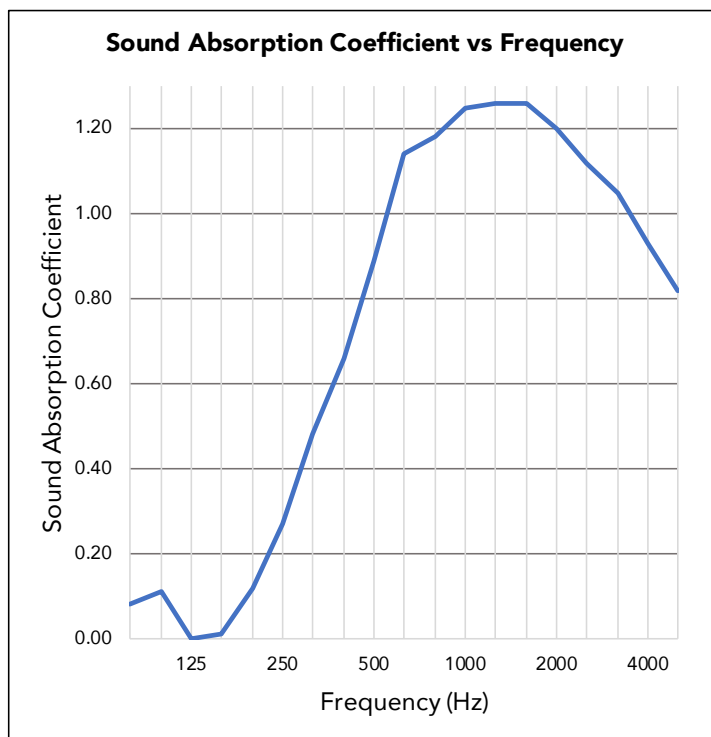
Test Date: 5/19/2014

Why this test: This test evaluates a products efficiency of absorbing sound at multiple frequencies. The test simulates the product's acoustical performance with a ceiling or wall installation using a mechanical z-clip (6mm airspace).

Test Result Summary: NRC - 0.90; SAA - 0.90

NRC	SAA
0.90	0.90

Frequency (Hz)	Absorption Coefficient
80	0.08
100	0.11
125	0.00
160	0.01
200	0.12
250	0.27
315	0.48
400	0.66
500	0.89
630	1.14
800	1.18
1000	1.25
1250	1.26
1600	1.26
2000	1.20
2500	1.12
3150	1.05
4000	0.93
5000	0.82



Test ID: ESP016812P-1

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Element Materials Technology
662 Cromwell Avenue
St Paul, MN
55114-1720 USA

P 651 645 3601
F 651 659 7348
T 888 786 7555
info.stpaul@element.com
element.com

SOUND ABSORPTION TESTING CONDUCTED ON a Micro-perforated Wood Veneer Acoustic Panel

Rendered by Manufacturer and Released to:
ASI
123 Columbia Court N.
Chaska, MN 55318

Date: May 27, 2014
Author: John Wegscheider
Report Number: ESP016812P-1



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Ear Controlled Data

Noise Reduction Coefficient (ASTM C423-09a)

INTRODUCTION:

This report presents the results of acoustical testing of a Micro-perforated Wood Veneer Acoustic Panel. This testing was requested by Mr. Darrell VonBergen and was conducted on May 19th, 2014.

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The results stated in this report represent only the specific construction and acoustical conditions present at the time of the test. Measurements performed in accordance with this standard on nominally identical constructions and acoustical conditions may produce different results.

TEST RESULTS SUMMARY:

<i>Noise Reduction Coefficient (NRC) Test Type F-6 Mount</i>				Test Results		
Test #	Sample Identification	Total Weight (lbs)	Weight (psf)	NRC	SAA	--
1	1" Micro-perforated Wood Veneer Acoustic Panel	112.4	1.7	0.90	0.90	--

Tabular and graphical presentations of the data are presented under "TEST RESULTS" below.

SPECIMEN DESCRIPTION: (Also see "Test Results")

The material was identified as 1" Micro-perforated Wood Veneer Acoustic Panel. A total of 2 panels were used measuring 48 5/8" x 96 3/4" x 1" thick. Total sample area was 65.34 ft² with a total weight of approximately 112.4 lbs. The Panel Edges were taped and placed on the test surface floor with a 6mm furring strip. A 1" space was used between panel edges.

TEST PROCEDURE AND EQUIPMENT:**Sound Absorption Test**

ASTM C 423-09a," Sound Absorption and Sound Absorption Coefficient by the Reverberation Room Method", was followed in every respect. The samples were placed on the floor in a Type A mounting method.

NRC was calculated by rounding the sound absorption coefficients for 250, 500, 1000 and 2000 Hz to the nearest 0.05. SAA was calculated by rounding the sound absorption coefficients for the twelve frequencies from 200 Hz to 2500 Hz to the nearest 0.01.

TEST EQUIPMENT:

Item Description	ID #	Manufacturer/Model	Serial #	Calibration Due
1/2" Pressure Condenser Microphone	PT-162-095	BSWA/MP253	450007	9/6/14
Microphone Calibrator	MM440-003	Brueel & Kjaer/4230	282266	9/6/14
Data Acquisition Module	PT-162-107	National Instruments/NI9234	195551B-01L	8/27/14
Temp and Humidity Transmitter	PT-162-077	Dwyer Instruments/Series RH	M90714-E4SV-Y	5/22/14

Test Data:

SOUND ABSORPTION ASTM C423

General Information

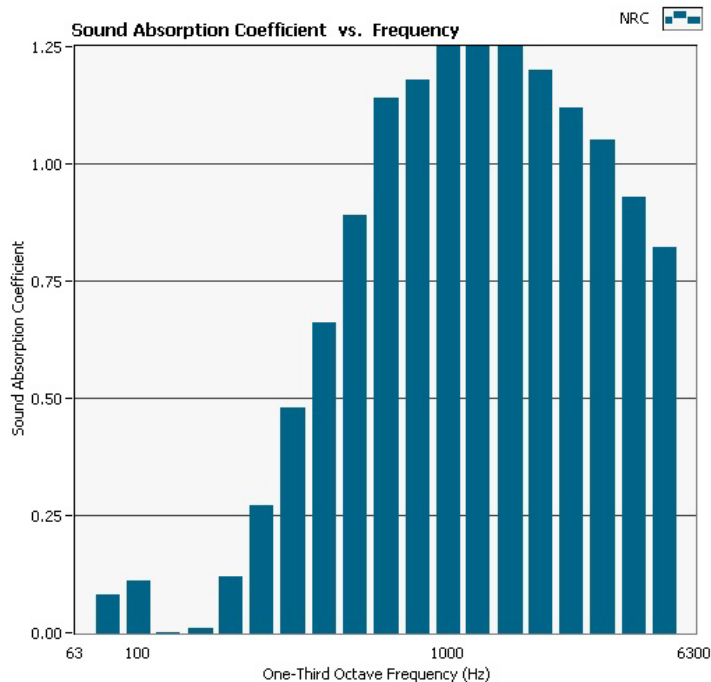
Project No:	ESP016812P-1
Customer:	ASI
Test Date:	05-19-2014
Specimen ID:	1" Micro-perforated Acoustic Panel
Specimen Description:	Acoustic Panel
Specimen Dimensions - Area:	96.75" W x 97.25" H - 65.34 ft ²
Operator:	JMW

Data Table

	absorption empty (m ²)	absorption * sample (m ²)	Absorption Coefficient
80	5.17	0.51	0.08
100	6.32	0.64	0.11
125	3.52	0.02	0.00
160	3.75	0.04	0.01
200	4.48	0.71	0.12
250	4.29	1.64	0.27
315	4.18	2.92	0.48
400	4.30	4.03	0.66
500	4.77	5.40	0.89
630	5.08	6.92	1.14
800	5.59	7.18	1.18
1000	5.98	7.60	1.25
1250	6.58	7.64	1.26
1600	7.18	7.67	1.26
2000	8.09	7.30	1.20
2500	8.82	6.80	1.12
3150	9.77	6.36	1.05
4000	11.41	5.64	0.93
5000	13.45	4.95	0.82

Room Conditions

Temperature	22.0 °C
R.H.	65 %
ATM	977 hPa



NRC

0.90

SAA

0.90

* based on an extended plane area of 65.34 ft²



John Wegscheider
Project Manager
Building Products and Acoustics
651-659-7353



Shaun Montgomery
Engineering Technician
Product Evaluation Department
651-65-7313