

Test Report

FOR: **Decorative Ceiling Tiles**
Margate, FL.

Sound Absorption
RAL™-A15-240

CONDUCTED: 2015-08-27

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ON: Laurel Wreath -Faux Tin Ceiling Tile - Antique Copper

TEST METHOD

Riverbank Acoustical Laboratories™ is accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) as an ISO 17025:2005 Laboratory (NVLAP Lab Code: 100227-0) and for this test procedure. The test reported in this document conformed explicitly with ASTM C423-09a: "Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method." The specimen mounting was performed according to ASTM E795-05(2012): "Standard Practices for Mounting Test Specimens During Sound Absorption Tests." A description of the measuring procedure and room qualifications is available upon request.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Laurel Wreath -Faux Tin Ceiling Tile - Antique Copper. A full internal inspection was performed on the test specimen by Riverbank personnel, verifying the manufacturer's description.

Detail of Ceiling Tile

Material: Polyvinyl chloride (PVC)
Dimensions: Sixteen at 603.25 mm (23.75 in.) wide by 603.25 mm (23.75 in.) long
Four at 330.20 mm (13.0 in.) wide by 603.25 mm (23.75 in.) long
Material Thickness: 0.47 mm (0.02 in.)
Note: A decorative design was formed into the face of each ceiling tile.

Physical Measures

Size: 2.41 m (95.00 in.) wide by 2.74 m (108.00 in.) long
Thickness: 14.27 mm (0.56 in.)
Weight: 4.08 kg (9.00 lbs.)
Mass per Unit Area: 0.63 kg/m² (0.13 lbs/ft²)
Area: 6.61 m² (71.20 ft²)

Test Environment

Volume: 292.0 m³ (10,311.0 ft³)
Temperature: 22.4±0.0°C (72.2±0.0°F)
Humidity: 59.3±0.3%
Barometric Pressure: 99.2 kPa.



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Figure 1 – Specimen mounted in the test chamber.



Figure 2 – Detail of the test specimen.



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Page 3 of 7**MOUNTING METHOD**

Type E-400 Mounting: The test specimen was mounted with an airspace behind it. The number designates the distance in millimeters from the exposed face of the test specimen to the test surface. The perimeter was sealed using metal framing.

TEST RESULTS

1/3 Octave Center Frequency (Hz)	Total Absorption (SI) (m ²)	Total Absorption (IP) (Sabins)	Absorption Coefficient (Sabins / ft ²)
100	4.67	50.28	0.71
** 125	4.23	45.51	0.64
160	2.04	22.00	0.31
200	1.80	19.39	0.27
** 250	1.39	14.91	0.21
315	0.74	8.01	0.11
400	0.59	6.37	0.09
** 500	0.86	9.30	0.13
630	0.89	9.60	0.13
800	0.67	7.20	0.10
** 1000	0.73	7.86	0.11
1250	0.78	8.44	0.12
1600	0.83	8.94	0.13
** 2000	0.77	8.28	0.12
2500	0.74	7.95	0.11
3150	0.87	9.40	0.13
** 4000	0.81	8.76	0.12
5000	0.81	8.75	0.12

SAA = 0.14
NRC = 0.15

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TEST RESULTS (Continued)

The sound absorption average (SAA) is defined as a single number rating, the average, rounded to the nearest 0.01, of the sound absorption coefficient of a material for the twelve one-third octave bands from 200 through 2500 Hz, inclusive.

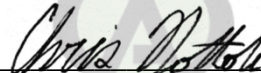
The noise reduction coefficient (NRC) is defined from previous versions of this same test method as the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

Tested by



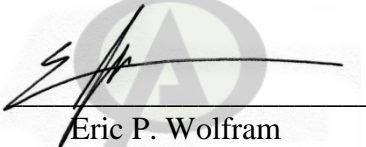
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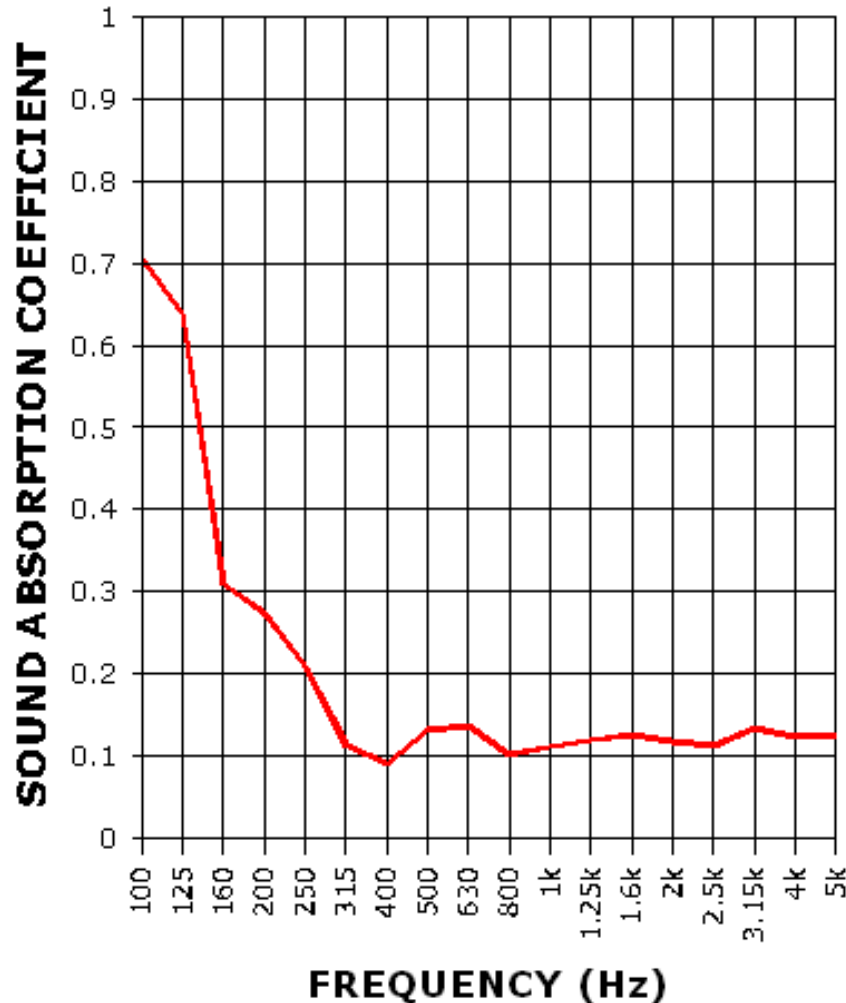
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SOUND ABSORPTION REPORT Laurel Wreath -Faux Tin Ceiling Tile - Antique Copper



SAA = 0.14

NRC = 0.15



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APPENDIX A: Extended Frequency Range Data

Specimen: Laurel Wreath -Faux Tin Ceiling Tile - Antique Copper (See Full Report)

The following non-accredited data were obtained in accordance with ASTM C423-09a, but extend beyond the defined frequency range of 100Hz to 5,000Hz. These unofficial results are representative of the RAL test environment only and intended for research & comparison purposes.

1/3 Octave Band Center Frequency (Hz)	Total Absorption (Sabins)	Absorption Coefficient (Sabins / ft ²)
31.5	23.59	0.33
40	26.66	0.37
50	49.99	0.70
63	48.91	0.69
80	11.16	0.16
100	50.28	0.71
125	45.51	0.64
160	22.00	0.31
200	19.39	0.27
250	14.91	0.21
315	8.01	0.11
400	6.37	0.09
500	9.30	0.13
630	9.60	0.13
800	7.20	0.10
1000	7.86	0.11
1250	8.44	0.12
1600	8.94	0.13
2000	8.28	0.12
2500	7.95	0.11
3150	9.40	0.13
4000	8.76	0.12
5000	8.75	0.12
6300	8.43	0.12
8000	6.79	0.10
10000	14.18	0.20
12500	84.25	1.18



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APPENDIX B: Instruments of Traceability

Specimen: Laurel Wreath -Faux Tin Ceiling Tile - Antique Copper (See Full Report)

<u>Description</u>	<u>Model</u>	<u>Serial Number</u>	<u>Date of Certification</u>	<u>Calibration Due</u>
Bruel & Kjaer Pulse Analyzer	Type 3560-C	2647140	2015-04-08	2016-04-08
Bruel & Kjaer Mic And Preamp	Type 4943-B-001	2311440	2014-09-03	2015-09-03
Bruel & Kjaer Sound Level Calibrator	Type 4230	861609	2015-03-17	2016-03-17
Omega Digital Temp., Humid. And Pressure Recorder	OM-CP- PRHTemp2000	N11105	2014-09-30	2015-09-30

END



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