

Test ReportFOR: **CarpetCycle, LLC**
Newark, NJ**Sound Absorption**
RAL-A16-098

CONDUCTED: 2016-05-23

Page 1 of 7

ON: Quiet-Tech Acoustic Insulation Batts

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 Quiet-Tech Acoustic Insulation Batts. A full internal inspection performed on the test specimen by Riverbank personnel verified the manufacturer's description.

Detail of Materials

Material: 50/50 recycled carpet/recycled clothing acoustic insulation
Dimensions: 5 sheets at 72 in. (1.828 m) x 24 in. (609.6 mm)
1 sheet at 24 in. (609.6 mm) x 24 in. (609.6 mm)
Thickness: 48.1 mm (1.89 in.)*

* = Approximate measurement; thickness varied.

Physical Measures

Overall Dimensions: 2.44 m (96.00 in.) wide by 2.44 m (96.00 in.) long
Overall Thickness: 48.1 mm (1.89 in.)
Overall Weight: 17.69 kg (39.00 lbs.)
Area: 5.95 m² (64.00 ft²)
Mass per Unit Area: 2.98 kg/m² (0.61 lbs./ft²)

Test Environment

Volume: 292.0 m³ (10,311.0 ft³)
Temperature: 23.0±0.0°C (73.4±0.0°F)
Humidity: 57.7±0.1%
Barometric Pressure: 98.7 kPa.



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Test Report

CarpetCycle, LLC
2016-05-23

RAL-A16-098

Page 2 of 7



Figure 1 - Specimen mounted in the test chamber.



Figure 2 - Detail of the test specimen.



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Test Report**CarpetCycle, LLC**
2016-05-23**RAL-A16-098**
Page 3 of 7**MOUNTING METHOD**

Type A Mounting: The test specimen was laid directly against 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	1.13	12.19	0.19
** 125	1.38	14.84	0.23
160	1.81	19.46	0.30
200	2.50	26.91	0.42
** 250	3.50	37.71	0.59
315	5.39	57.99	0.91
400	6.17	66.43	1.04
** 500	6.64	71.43	1.12
630	6.73	72.50	1.13
800	6.77	72.88	1.14
** 1000	6.57	70.72	1.10
1250	6.49	69.90	1.09
1600	6.31	67.91	1.06
** 2000	6.29	67.75	1.06
2500	6.33	68.11	1.06
3150	5.98	64.39	1.01
** 4000	6.30	67.82	1.06
5000	6.29	67.73	1.06

SAA = 0.98**NRC = 0.95**

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Test Report

CarpetCycle, LLC
2016-05-23


RAL-A16-098
Page 4 of 7

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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Report by


Miles Passing
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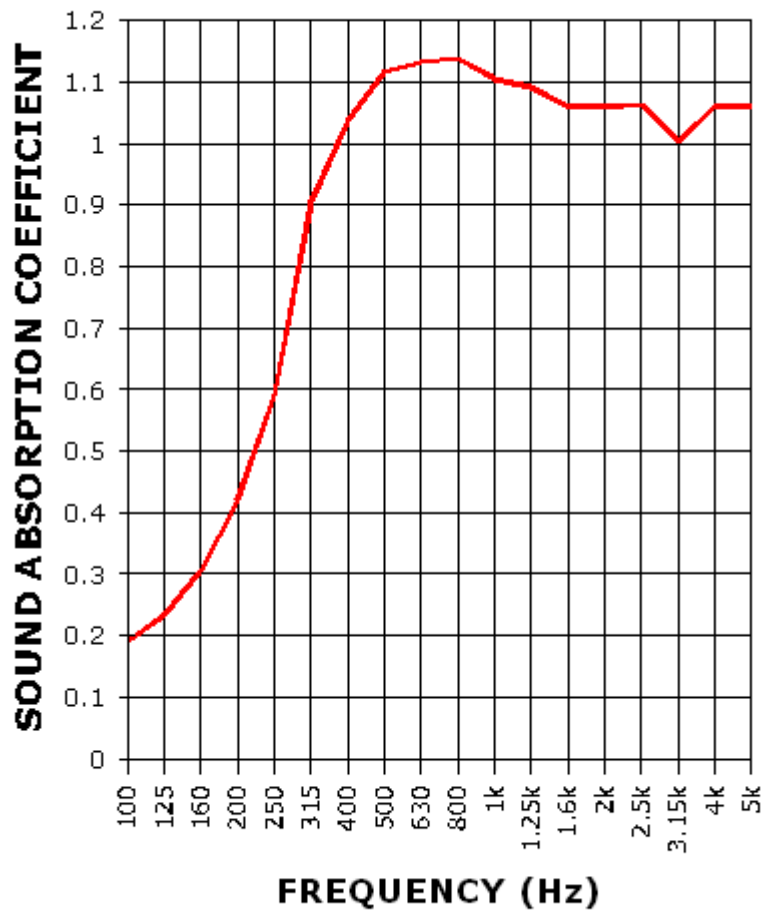
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2016-05-23

RAL-A16-098
Page 5 of 7

SOUND ABSORPTION REPORT Quiet-Tech Acoustic Insulation Batts



SAA = 0.98

NRC = 0.95



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Test Report

CarpetCycle, LLC
2016-05-23

RAL-A16-098
Page 6 of 7

APPENDIX A: Extended Frequency Range Data

Specimen: Quiet-Tech Acoustic Insulation Batts (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	2.29	0.04
40	-1.73	-0.03
50	-0.28	0.00
63	-11.36	-0.18
80	2.94	0.05
100	12.19	0.19
125	14.84	0.23
160	19.46	0.30
200	26.91	0.42
250	37.71	0.59
315	57.99	0.91
400	66.43	1.04
500	71.43	1.12
630	72.50	1.13
800	72.88	1.14
1000	70.72	1.10
1250	69.90	1.09
1600	67.91	1.06
2000	67.75	1.06
2500	68.11	1.06
3150	64.39	1.01
4000	67.82	1.06
5000	67.73	1.06
6300	66.55	1.04
8000	65.96	1.03
10000	64.25	1.00
12500	54.13	0.85



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RAL-A16-098
Page 7 of 7

APPENDIX B: Instruments of Traceability

Specimen: Quiet-Tech Acoustic Insulation Batts (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 - System3	Type 3560-C	2647140	2016-04-12	2017-04-12
Bruel & Kjaer Mic And Preamp B	Type 4943-B-001	2311427	2015-07-27	2016-07-27
G.R.A.S Pistonphone	Type42AF-1	80001	2015-08-14	2016-08-14
Omega Digital Temp., Humid. And Pressure Recorder	OM-CP-PRHTemp2000	N11105	2015-09-30	2016-09-30

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