

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE**TEST REPORT**FOR: Golterman & Sabo, Inc.
St. Louis, MOSound Absorption Test
RAL™-A05-107

ON: Fabric-Wall 1 Inch System Covered with Guilford 2100 Fabric

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CONDUCTED: 10 June 2005

TEST METHOD

The test method conformed explicitly with the requirements of the ASTM Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method: ASTM C423-02a and E795-00. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure (NVLAP Lab Code: 100227-0). A description of the measuring procedure and room qualifications is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Fabric-Wall 1 inch system covered with Guilford 2100 fabric. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.76 m (108.5 in.) long and 54 mm (2.125 in.) thick. The specimen consisted of two (2) pieces. Each piece was 1.22 m (48 in.) wide by nominally 2.76 m (108.5 in.) long. The 29 mm (1.125 in.) thick Fabric Walls were installed over nominal 13 mm (0.5 in.) thick gypsum board and 12 mm (0.469 in.) thick 15/32" plywood, both provided in a total of four (4) pieces which were measured 1.22 m (48 in.) wide by 2.76 m (108.5 in.) long and 24.6 mm (0.969 in.) thick. Rigid plastic track was mounted on the perimeter of ½ inch thick gypsum board fabric and was stretched over fiberglass infill. The specimen was tested in the laboratory's 292 m³ (10,311 ft³) test chamber.

The weight of the entire specimen as measured was 120.9 kg (266.5 lbs), an average of 17.9 kg/m² (3.7 lbs/ft²). The area used in the calculations was 6.7 m² (72.3 ft²). The room temperature at the time of the test was 21°C (70°F) and 62% relative humidity.

MOUNTING A

The test specimen was laid directly against the test surface. Perimeter edges were unsealed.

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TEST RESULTS

| 1/3 Octave Center Frequency (Hz) | Absorption Coefficient | Total Absorption In Sabins |
|--|---------------------------|-------------------------------|
| 100 | 0.12 | 8.63 |
| ** 125 | 0.14 | 10.45 |
| 160 | 0.17 | 11.98 |
| 200 | 0.24 | 17.14 |
| ** 250 | 0.35 | 25.09 |
| 315 | 0.56 | 40.14 |
| 400 | 0.69 | 49.55 |
| ** 500 | 0.82 | 59.34 |
| 630 | 0.89 | 64.23 |
| 800 | 0.93 | 67.28 |
| ** 1000 | 0.99 | 71.63 |
| 1250 | 1.06 | 76.38 |
| 1600 | 1.02 | 74.03 |
| ** 2000 | 1.04 | 75.16 |
| 2500 | 1.03 | 74.68 |
| 3150 | 1.00 | 72.22 |
| ** 4000 | 1.01 | 73.29 |
| 5000 | 0.99 | 71.81 |

SAA = 0.80

NRC = 0.80

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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 Marc Sciaky
Marc Sciaky
Senior Technician

Approved by David L. Moyer
David L. Moyer
Laboratory Manager

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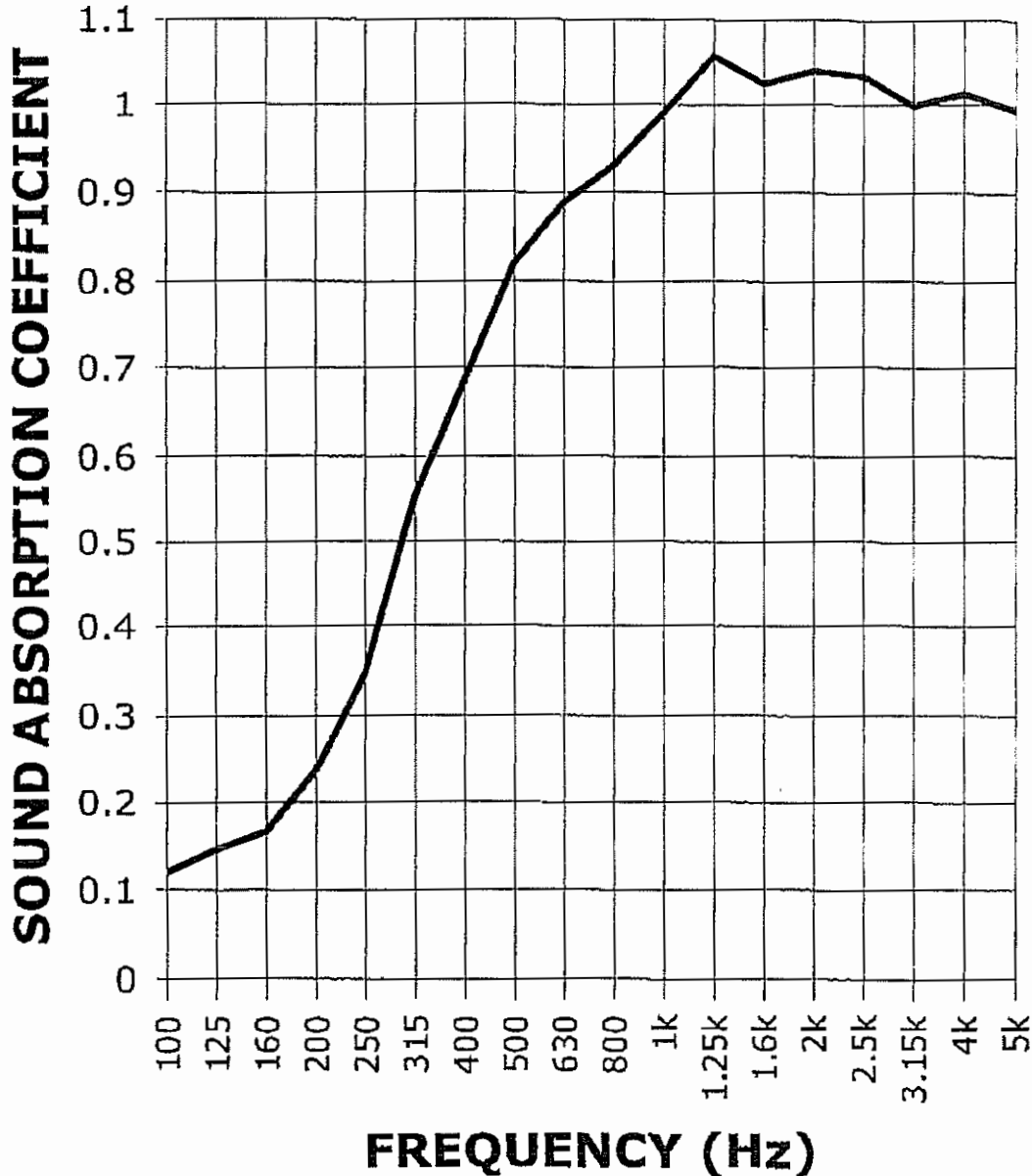
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TEST REPORT

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SAA = 0.80

NRC = 0.80

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