RIVERBANK ACOUSTICAL LABORATORIES

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, MO

Sound Absorption Test
RAL™-A05-058

ON: Fabric-Walls, 2 Inch



CONDUCTED: 18 March 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-Walls, 2 inch. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.74 m (108 in.) long and 76 mm (3 in.) thick. The specimen consisted of two (2) pieces. Each piece was 1.22 m (48 in.) wide by 2.74 m (108 in.) long. The 2 inch Fabric Walls were installed over nominal ½ inch thick gypsum board and ½ inch thick plywood, both provided in a total of four (4) pieces which were measured 1.22 m (48 in.) wide by 2.44 m (108 in.) long and 13 mm (0.5 in.) thick. The specimen was tested in the laboratory's 292 $m^3$ (10,311 $ft^3$) test chamber.

The manufacturer's description of the specimen was as follows: Fabric-Walls, 2 Inch: Fabric-Walls, 2", square edged track with Guilford 2100 fabric stretched over 2", 6-7 pcf fiberglass core. A visual inspection verified the manufacturer's description of the specimen.

The weight of the entire specimen as measured was 137.3 kg (302.75 lbs), an average of 20.5 $kg/m^2$ (4.2 $lbs/ft^2$). The area used in the calculations was 6.7 $m^2$ (72 $ft^2$). The room temperature at the time of the test was 21°C (70°F) and 59±1% 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 | 0.37 | 26.63 |
| ** 125 | 0.40 | 28.82 |
| 160 | 0.44 | 31.77 |
| 200 | 0.63 | 45.23 |
| ** 250 | 0.78 | 56.24 |
| 315 | 0.99 | 71.62 |
| 400 | 1.10 | 79.23 |
| ** 500 | 1.17 | 84.24 |
| 630 | 1.15 | 83.06 |
| 800 | 1.13 | 81.48 |
| ** 1000 | 1.09 | 78.61 |
| 1250 | 1.12 | 80.34 |
| 1600 | 1.12 | 80.91 |
| ** 2000 | 1.11 | 80.08 |
| 2500 | 1.10 | 79.39 |
| 3150 | 1.08 | 77.86 |
| ** 4000 | 1.10 | 78.97 |
| 5000 | 1.07 | 77.09 |

SAA = 1.04
NRC = 1.05

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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 _____ Approved by _____

Marc Sciaky
Senior Technician

David L. Moyer
Laboratory Manager

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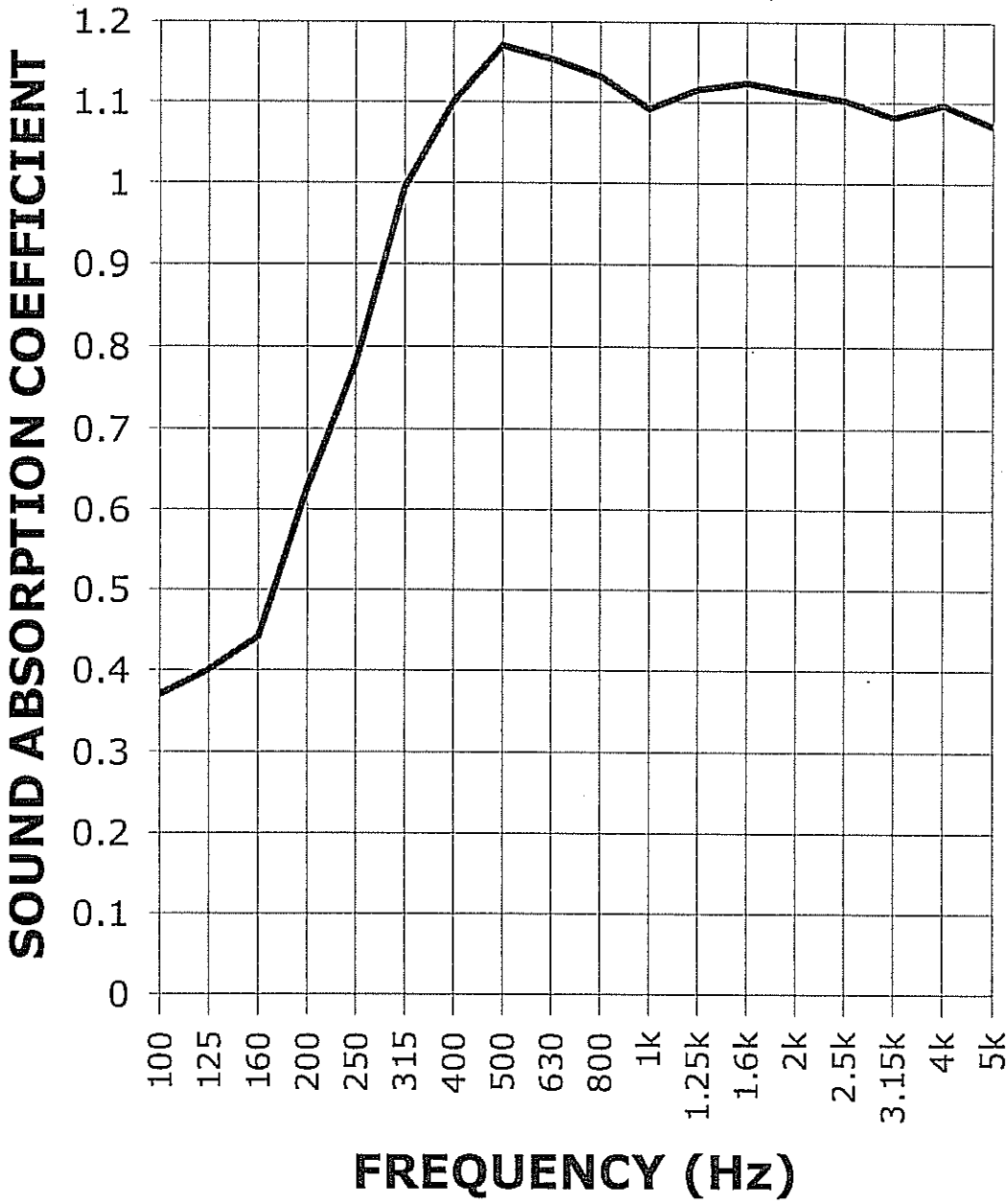
RAL - A05-058



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