

512 S. BATAVIA AVENUE
BATAVIA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

FOR: KM Fabrics, Inc.

620 SOUND

Sound Absorption Test
RAL™-A01-3

ON: Prestige Green IFR 100% Inherently Flame Retardant Polyester
Fabric

CONDUCTED: 5 January 2001

PRESTIGE

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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 C423-90a 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. A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Prestige Green IFR 100% inherently flame retardant polyester fabric. The overall dimensions of the specimen as measured were 2.74 m (108 in.) wide by 2.44 m (96 in.) high and nominal 127 mm (5 in.) thick. The specimen consisted of four (4) pieces. Each piece was 1.37 m (54 in.) wide by 2.44 m (96 in.) long and 1.5 mm (0.06 in.) thick. Each piece was suspended from the mounting rod with wire spaced 305 mm (12 in.) on center for 100% fullness. The overall width of each piece after folding was 686 mm (27 in.). The pieces were pinned together as necessary to form a continuous specimen. The specimen was tested in the laboratory's 292 m³ (10,311 ft³) test chamber.

The weight of the specimen as measured was 6.8 kg (15 lbs), an average of 1.0 kg/m² (0.21 lbs/ft²). The area used in the calculations was 6.7 m² (72 ft²). The room temperature at the time of the test was 21±1°C (69±1°F) and 59±1% relative humidity.

MOUNTING G-205

Test specimen hung parallel to the test surface. The number designates the distance in mm from the centerline of the hangers to the test surface.

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NVLAP

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RIVERBANK ACOUSTICAL LABORATORIES

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TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins	% Of Uncertainty With 95% Confidence Limit With Specimen
100	0.09	6.28	3.06
** 125	0.16	11.43	2.88
160	0.24	17.18	2.34
200	0.35	24.90	1.94
** 250	0.53	38.50	1.56
315	0.69	49.66	1.32
400	0.83	59.76	1.40
** 500	0.92	66.13	1.09
630	0.94	67.92	0.98
800	0.91	65.41	0.81
** 1000	0.93	66.72	0.80
1250	0.96	69.22	0.73
1600	1.00	71.69	0.71
** 2000	1.01	72.36	0.63
2500	0.98	70.62	0.53
3150	1.02	73.30	0.57
** 4000	1.00	72.10	0.50
5000	1.03	74.15	0.48

NRC= 0.85

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TEST RESULTS (Continued)


The percentage of uncertainty for the required 95% confidence limits indicated above must fall within the prescribed limits designated in par. 13.2 of ASTM C423-90a. It states that for the absorption of the reverberation room containing the specimen the testing laboratory shall obtain data with less than 4% uncertainty at 125 (hertz) and 2% uncertainty at 250, 500, 1000, 2000, and 4000 (hertz). The method of calculation is described in ASTM STP 15D and outlined in section 13 of the standard.

The noise reduction coefficient (NRC) is the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

Tested by


Dean Victor
Senior Experimentalist

Approved by


David L. Moyer
Laboratory Manager

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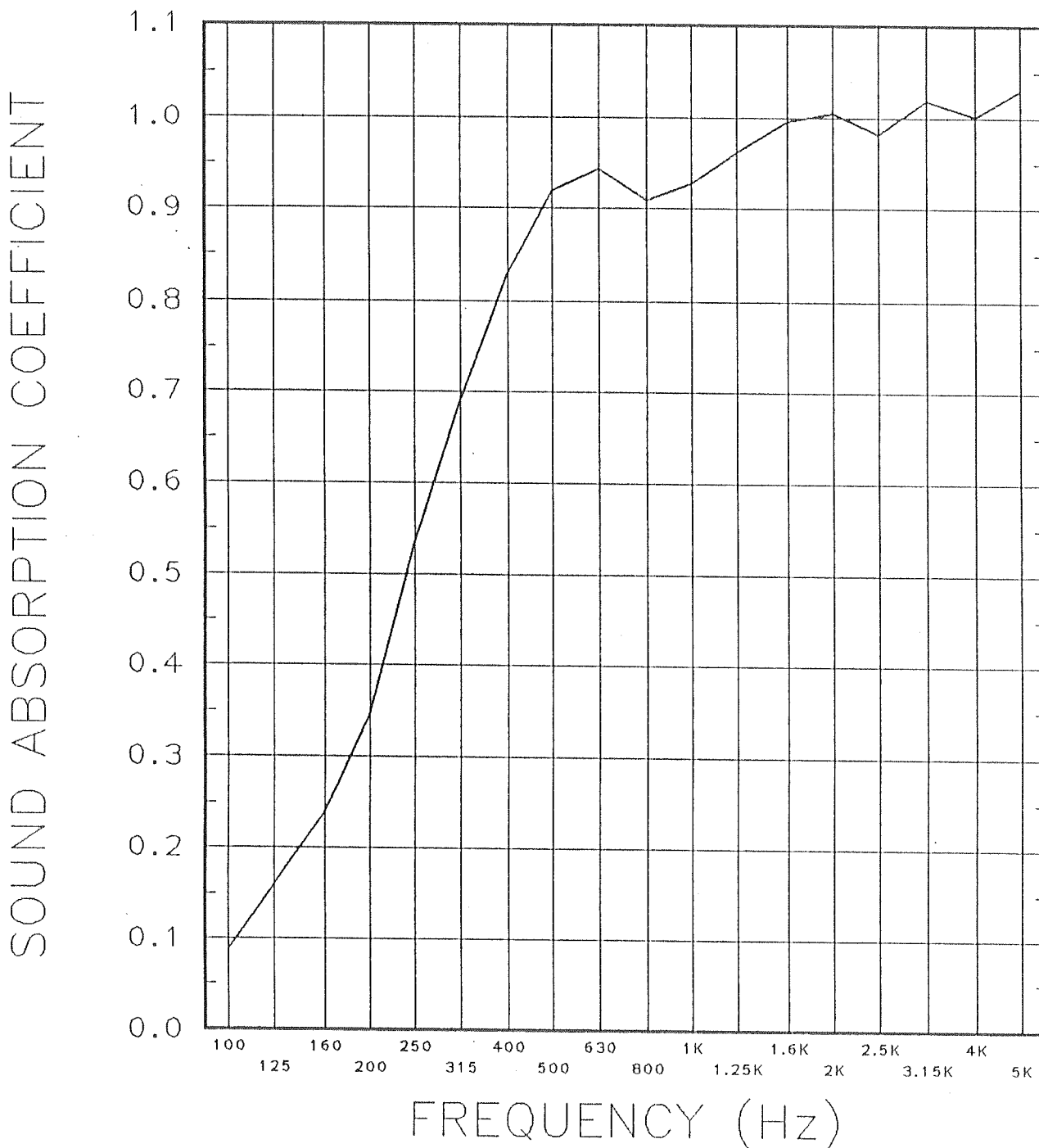


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TEST REPORT

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NRC = 0.85

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