

TEST REPORT

FOR: Radial Engineering Ltd.
Port Coquitlam, BC, Canada

Sound Absorption Test
RAL™-A08-032

ON: Primacoustic MaxTrap

Page 1 of 4

CONDUCTED: 11 March 2008

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 C423-07a and E795-05. 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 Primacoustic MaxTrap. The specimen consisted of eight (8) units. Each unit as measured was nominally 610 mm (24 in.) wide by 1.22 m (48 in.) high and 305 mm (12 in.) thick. The specimen was tested in the laboratory's 292 m³ (10,311 ft³) test chamber.

The manufacturer's description of the specimen was as follows: Primacoustic MaxTrap is a combination broadband absorber and bass trap enclosure made from MDF wood composite with a melamine finish. The enclosure is composed of a 3" thick front absorptive panel made from 6 lbs. per cubic foot high-density encapsulated fiberglass. Behind the acoustic panel is a stretched diaphragmatic dense-mass membrane and behind the membrane, an air cavity is created by the wood enclosure. The material specifications were given as follows: Frame Material: Black melamine laminated MDF; Dimensions: 24" (610 mm) x 48" (1,219 mm) x 19"; Panel Material: Formed, semi-rigid inorganic glass fibers; Density 6.0 lbs. pcf. (96 kg/m³); Fabric Facing: Acoustically transparent polyester; Diaphragmatic Membrane: Loaded vinyl, 1 lbs per cubic foot. A visual inspection verified the manufacturer's description and detailed drawing of the specimen. The manufacturer's drawing is maintained on file.

The weight of the entire set of panels as measured was 334 kg (151.5 lbs), an average of 18.9 kg (41.75 lbs) per panel. The room temperature at the time of the test was 21°C (70°F) and 59±1% relative humidity.

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NVLAP Lab Code 100227-0

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TEST REPORT

Radial Engineering Ltd.

RAL™-A08-032

11 March 2008

Page 2 of 4

MOUNTING J

Six of the eight panels were distributed around the test chamber as follows: Two units on the south wall, three units on the north wall, and one unit on the west wall. Respective to each wall surface the panels were located at a 45° angle supported at both the wall and floor with the long dimension of the panel parallel to the wall-floor intersection. The panels were located 203 mm (8 in.) apart. Two of the eight panels were located at a nominal 45° angle in the southwest corner of the room. The panels stood vertically and were stacked one upon the other with the bottom panel resting on a 165 mm (6.5 in.) high ledge on the test room floor.

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TEST REPORT

Radial Engineering Ltd.

RAL™-A08-032

11 March 2008

Page 3 of 4

TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Sabins/Unit	Total Absorption In Sabins
100	19.85	158.81
** 125	14.14	113.12
160	9.47	75.74
200	9.27	74.18
** 250	10.15	81.22
315	11.27	90.14
400	11.89	95.16
** 500	10.67	85.39
630	10.06	80.48
800	9.92	79.33
** 1000	9.88	79.02
1250	9.74	77.89
1600	9.40	75.18
** 2000	9.51	76.08
2500	9.35	74.77
3150	9.29	74.34
** 4000	9.07	72.60
5000	9.06	72.46

Tested by Marc Sciaky Approved by David L. Moyer
Marc Sciaky David L. Moyer
Experimentalist Laboratory Manager

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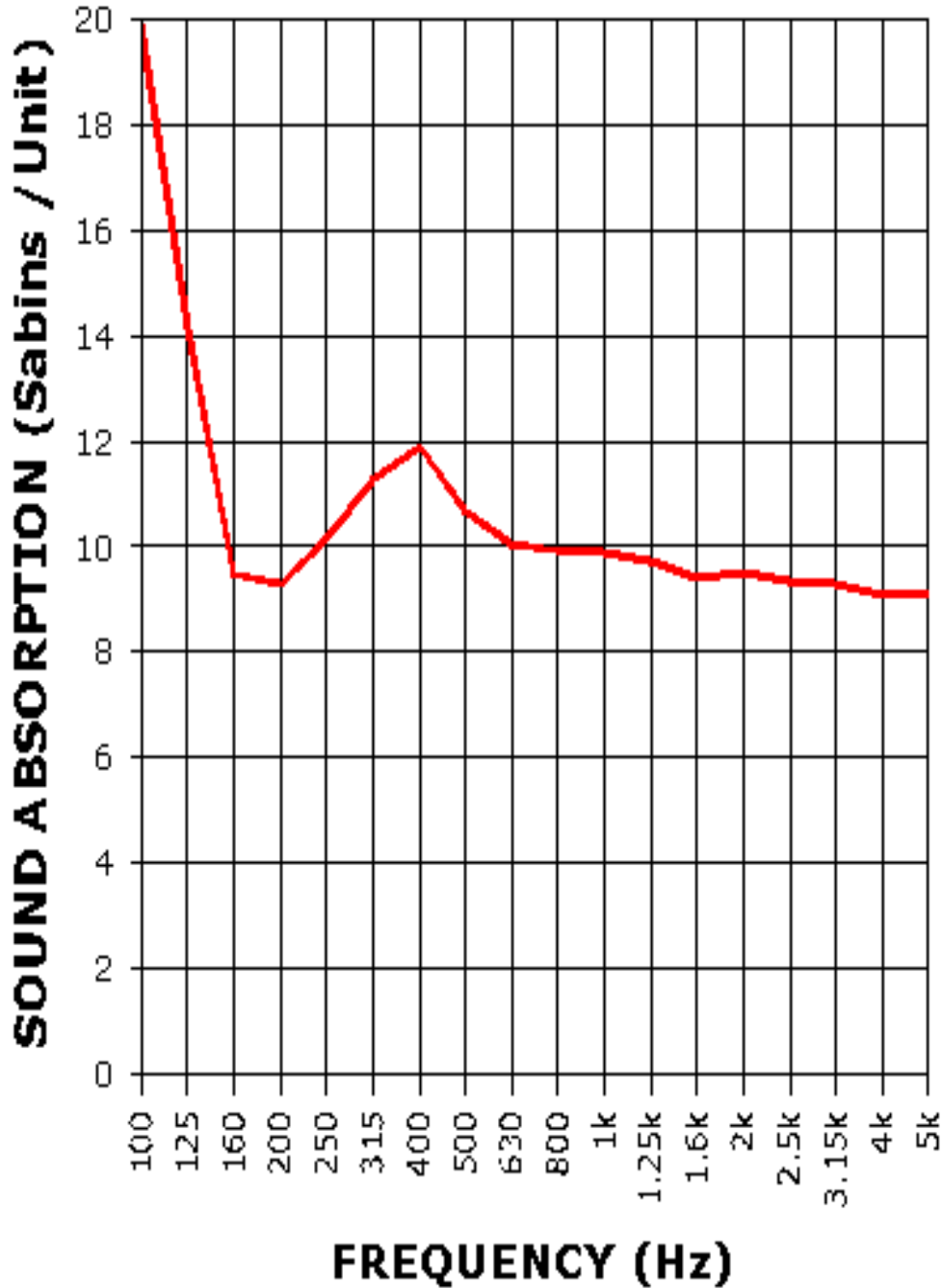


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