

TEST REPORT

No. : GZIN2304000717CM

Date : Apr 19, 2023

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scan to see the report



GZIN2304000717CM

CUSTOMER NAME: ART3D LLC
ADDRESS: 36 SOUTH 18TH AVENUE, SUITE A BRIGHTON, BRIGHTON, CO,
80601, US

Sample Name : wood slat acoustic panel

Product Specification : 600*2400*21mm

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

Date of Receipt : Apr 06, 2023

Testing Start Date : Apr 06, 2023

Testing End Date : Apr 19, 2023

Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical
Services Co., Ltd. GZ Branch Testing
Center

Tobby Yang
Authorized signatory



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I、 Condition

- 1) The test was carried out in the reverberation room of the Architectural Acoustics Laboratory of South China University of technology. The volume of the reverberation room is 200m³
- 2) Temperature:22°C, Relative humidity:72%

II、 Accordance

Measurement according to“Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method (ASTM C423—07a)”.The sound absorption of the specimen are calculated by the following equation:

$$A = 0.9210 \frac{Vd}{c} \quad (1)$$

A—sound absorption, m²; V—volume of reverberation room, m³; c—speed of sound ($c = 20.047\sqrt{273.15 + T}$, where T is the temperature in degrees Celsius), m/s; d —decay rate, dB/s.

And the sound absorption coefficient of the test specimen are calculated by the following equation:

$$\alpha = (A_2 - A_1) / S \quad (2)$$

α —absorption coefficient of test specimen, no units; A_1 —absorption of the empty reverberation room, m²; A_2 —absorption of the room after the specimen has been installed, m²; S —area of test specimen, m².

III、 Instruments

B&K 2270 Investigation, B&K power amplifier 2716, B&K omni directional speaker 4292, B&K microphone 4189 and accessories.



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IV、 Test Results:

Specifications	<p>Specifications: 600mm×1200mm×21mm; Surface with slat, back with polyester acoustic panel.</p> <p>Test Specimen mounting type: Wood slat acoustic panels (area:5.76m²) were laid on 50mm thick fiberglass wool (density:48kg/m³), which was placed in the middle of the floor of the reverberation room and wrapped with 1mm steel</p>
Frequency (Hz)	1/3 Octave band Sound Absorption Coefficient, α_s
100	0.26
125	0.29
160	0.37
200	0.82
250	0.65
315	0.78
400	0.98
500	0.91
630	0.96
800	0.97
1000	0.90
1250	0.86
1600	0.88
2000	0.83
2500	0.78
3150	0.74
4000	0.70
5000	0.65
NRC	0.80
SAA	0.86



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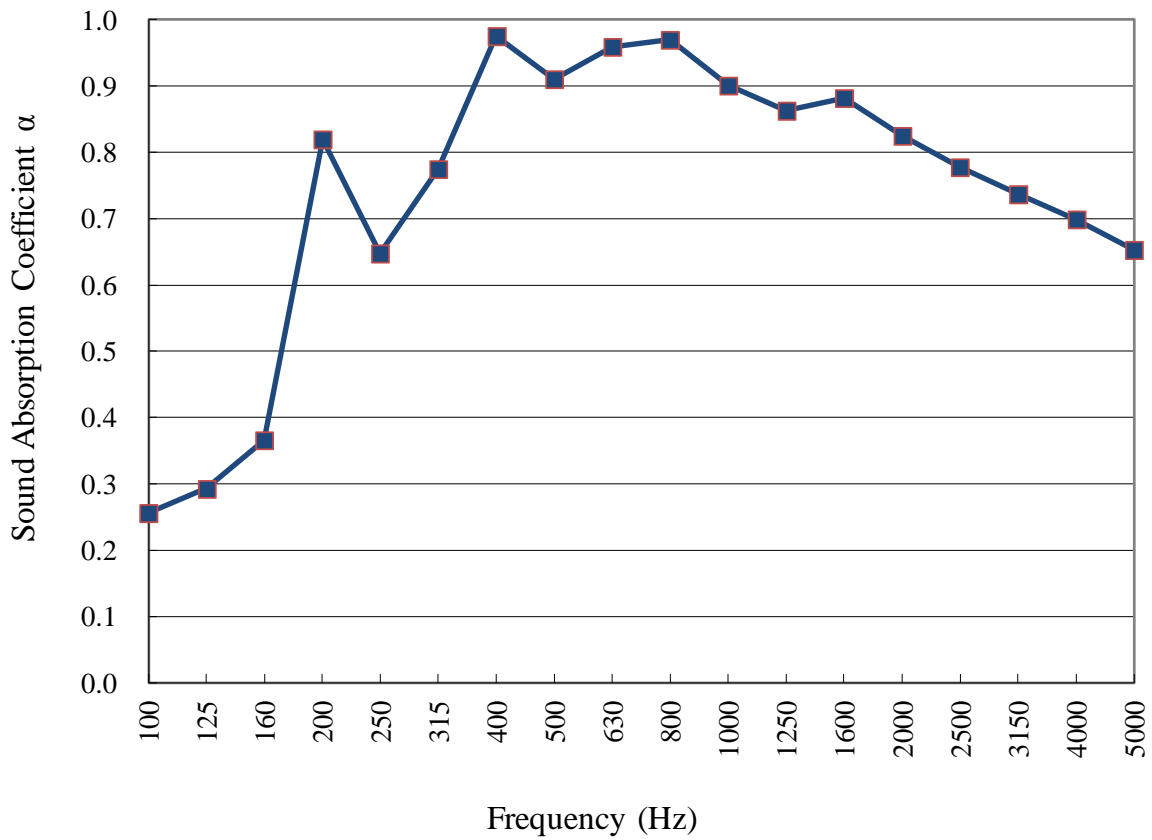
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And the Sound Absorption Coefficients of the tested specimen are plotted as follows.

Sound Absorption Coefficient



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V、 Photographic Records



Appendix information: The above test was carried out by Subtropical Architecture Institute South China University of Technology.

***** End of report*****



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