

TEST REPORT

for

JACKSON ACOUSTICS

Sound Absorption Testing

ISO 354:2003

On

**Binary Amplitude Diffuser (2D-A)
Type A Mounting**

Report Number: NGC 4024035

Assignment Number: G-1933

Test Date: 11/14/2024

Report Approval Date: 12/13/2024

Submitted by: _____

Anthony J. Rivers
Acoustical Test Engineer

Reviewed by: _____

Michael J. Rizzo
General Manager

The results reported above apply to specific samples submitted for measurement. No responsibility is assumed for performance of any other specimen. The laboratory's accreditation or any of its test reports in no way constitute or imply product certification, approval, or endorsement by NVLAP or any agent of the U.S. Government. This report may not be reproduced except in full, without written approval of the laboratory.

Revision Summary:

Date	SUMMARY
Approval Date: 12/13/2024	Original issue date: 12/13/2024 Original NGCTS report: NGC 4024035

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Report Number:	NGC 4024035
Test Method:	This test method conforms explicitly with the American Society for Testing and Materials Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method - Designation: ISO 354:2003. For the test, a Linear Averaging Mode is used as the Averaging Algorithm when measuring the Decay Times.
Specimen Description:	Designated by client as: Binary Amplitude Diffuser (2D-A). This panel is a fabric acoustic panel with a binary diffuser affixed to the front. The diffuser features a distinct design of circular and oval holes, providing both sound absorption and diffusion. The test specimen was observed to have the following characteristics: Panel Identification: Binary Amplitude Diffuser (2D-A). This panel is a fabric acoustic panel with a binary diffuser affixed to the front. The diffuser features a distinct design of circular and oval holes, providing both sound absorption and diffusion. All weights and dimension are averaged: Measured dimensions: Weight: 10.54 kg/m ² (2.16 PSF) Thickness: 59.18 mm (2.33 in.)
Mounting:	Type A as per ISO 354:2003
Total Sample Size:	109.88 Sq. Ft. (10.21 m ²)
Preconditioning:	Minimum 24 hours at 70°F, 55% R.H
Test Results:	The results of the tests are given on pages 4 and 5 of the report.

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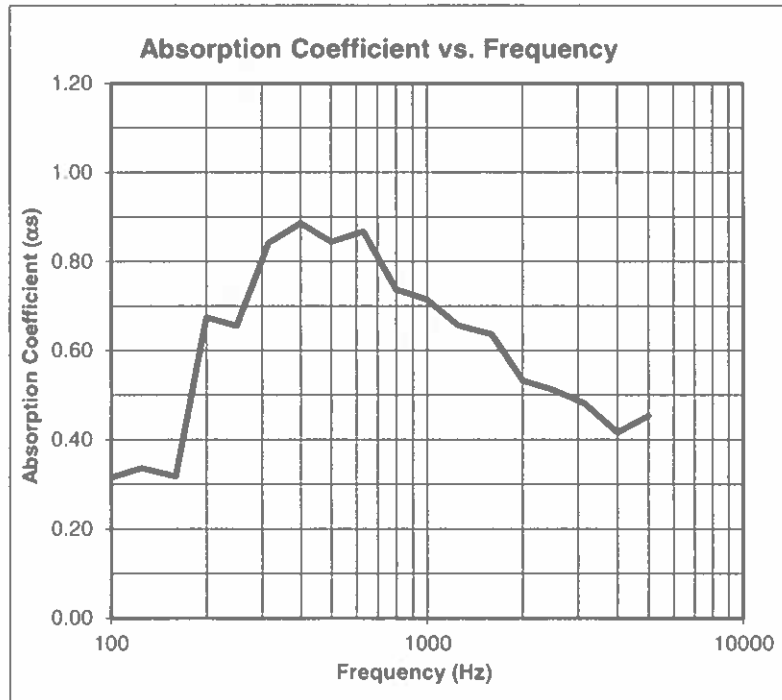
Sound Absorption Test Data per ISO 354:2003					Page 4 of 5
No. of test report:		NGC4024035		Date of test: 11/14/2024	
Temp. [°C]: 25.0		Humidity [%]: 50		Spec. Size [m ²]: 10.210	
Frequency [Hz]	Absorption Coefficients a _s	Avg. Decay Rate			
		Empty d (empty) [dB/s]	Specimen d (specimen) [dB/s]		
100	0.32	8.54	12.83		
125	0.34	9.81	14.38		
160	0.32	8.33	12.64		
200	0.67	7.69	16.86		
250	0.65	7.90	16.81		
315	0.84	7.35	18.79		
400	0.89	6.91	18.96		
500	0.84	6.74	18.22		
630	0.87	6.75	18.54		
800	0.74	6.56	16.57		
1000	0.71	6.75	16.47		
1250	0.66	7.39	16.32		
1600	0.64	7.71	16.36		
2000	0.53	8.83	16.08		
2500	0.51	9.14	16.10		
3150	0.48	9.62	16.16		
4000	0.42	9.53	15.18		
5000	0.45	9.40	15.56		
Reverberation Room Volume:		282.1	m ³		

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Sound Absorption Test Data per ISO 354:2003

Test report: **NGC4024035**
 Date of test: 11/14/2024
 Spec. Size [r 10.21
 Room Vol.[m 282.1
 Temp. [°C]: 25.0
 Humidity [%]: 50

Frequency [Hz]	Absorption Coefficients α_s
100	0.32
125	0.34
160	0.32
200	0.67
250	0.65
315	0.84
400	0.89
500	0.84
630	0.87
800	0.74
1000	0.71
1250	0.66
1600	0.64
2000	0.53
2500	0.51
3150	0.48
4000	0.42
5000	0.45



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