TEST REPORT

for

Interlam
391 Hickory Street
Mount Airy, NC 27030
Bob Livengood / 336-786-6254

Sound Absorption Testing

ASTM C 423-17 / E795-16

On

Akupanel 3 X 1
Type A Mounting

Report Number: NGC 4020019

Assignment Number: G-1697

Test Date: 05/20/2020

Report Approval Date: 06/04/2020

Submitted by: _____
Anthony J. Rivers
Test Technician

Reviewed by: _____
Robert J Meschetti
Director

Revision Summary:

Date	SUMMARY
Approval Date: 06/04/2020	Original issue date: 06/04/2020 Original NGCTS report: NGC 4020019

Report Number: NGC 4020019

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: C 423-17 / E795-16.

For the test, a Linear Averaging Mode is used as the Averaging Algorithm when measuring the Decay Times.

Specimen Description: Designated by client as: Akupanel 3 X 1

The test specimens were observed to have the following characteristics:

All weights and dimension are averaged:

Panels are: Akupanel 3 X 1

Face Finish: Wooden strips

Back Finish: White felt

Measued dimensions:

Unit Size: Four Units, 609.6 mm x 2438.4 mm (24 in. x 96 in.)
One Unit, 304.8 mm x 2438.4 mm (12 in. x 96 in.)

Measured Average Thickness of panels:

22.05 mm (0.868 in.)

Measured weight of panels:

9.09 kg/m^2 (1.86 PSF)

Mounting: Type A as per ASTM E795-16.

Total Sample Size: 72.00 Sq. Ft. (6.69 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 C423 - 17

No. of test report: **NGC 4020019** Date of test: 5/20/2020

Temp. [°C]: 25.0 Humidity [%]: 50 Spec. Size [m^2]: 6.689

Frequency [Hz]		Absorption Coefficients a_s	Avg. Decay Rate Empty d (empty) [dB/s]	Avg. Decay Rate Specimen d (specimen) [dB/s]	
100		0.01	9.08	9.14	
125		0.02	10.14	10.28	
160		0.06	7.78	8.27	
200		0.05	7.62	8.05	
250		0.07	7.87	8.53	
315		0.17	7.10	8.63	
400		0.27	6.62	9.04	
500		0.44	6.55	10.50	
630		0.62	6.36	11.91	
800		0.78	5.92	12.89	
1000		0.80	6.29	13.45	
1250		0.75	6.74	13.40	
1600		0.77	7.24	14.08	
2000		0.76	8.05	14.80	
2500		0.70	8.55	14.81	
3150		0.62	8.48	13.97	
4000		0.54	8.46	13.27	
5000		0.49	8.17	12.50	

Reverberation Room Volume: 282.1 m^3

Noise Reduction Coefficient NRC: 0.50 Avg. 250, 500, 1000, 2000 Hz : **0.520**

Sound Absorption Average SAA: 0.52 Avg. 200 - 2500 Hz: **0.516**

NOTE: Estimates of repeatability and reproducibility for sound absorption coefficients of a specimen are referenced in ASTM C423 - 17 test method.

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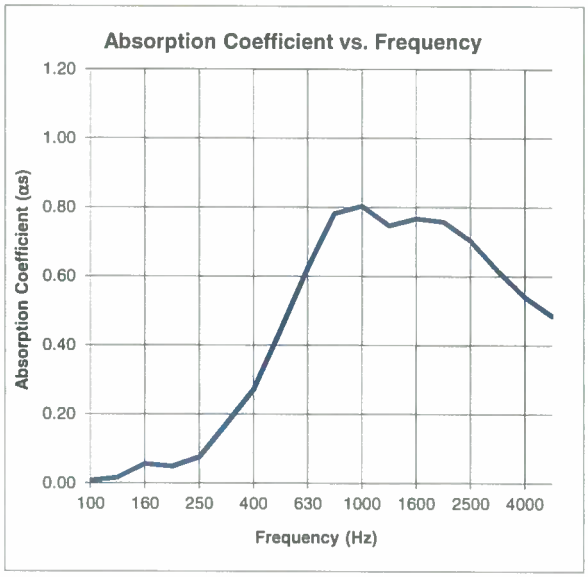
Sound Absorption Test Data per C423 - 17

Test report: **NGC 4020019**
Date of test: 5/20/2020
Spec. Size [m^2]: 6.689
Room Vol.[m^3]: 282.1
Temp. [°C]: 25.0
Humidity [%]: 50

Noise Reduction Coefficient NRC:	**0.50**
Sound Absorption Average SAA:	**0.52**

Frequency [Hz]	Absorption Coefficients α_s
100	0.01
125	0.02
160	0.06
200	0.05
250	0.07
315	0.17
400	0.27
500	0.44
630	0.62
800	0.78
1000	0.80
1250	0.75
1600	0.77
2000	0.76
2500	0.70
3150	0.62
4000	0.54
5000	0.49



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