



Acoustical Testing Laboratory



Accredited by the National Voluntary
Laboratory Accreditation Program
for the specific scope of accreditation
under Lab Code 200291

TEST REPORT

for

Arcoplast, Inc.
1873 Williamstown Drive
St. Peters, MO 63376
Ghislain Beauregard / 636-978-7781

Sound Absorption Test ASTM C 423 - 09a / E 795 - 05 On

Arcoplast® 3/8 Inch (9.5mm) Modular Glass / Resin Panels.

Type A Mount

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Report Number: NGC 4012078

Assignment Number: G-815

Test Date: 07/23/2012

Report Date: 08/10/2012

Submitted by: _____

Andrew E. Heuer
Senior Test Engineer

Reviewed by: _____

Robert J. Menchetti
Director

The results reported above apply to specific samples submitted for measurement.

No responsibility is assumed for performance of any other specimen.

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Report Number: NGC 4012078

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 – 09a / E 795 - 05.

For the test, a Linear Averaging Mode is used as the Averaging Algorithm when measuring the decay times.

Specimen Description: Designated by the client as Arcoplast® 3/8 inch (9.5mm) Modular Solid Glass / Resin Matrix Core Panel.

Face Finish: Observed to have a white smooth finish.

Core: Observed to composite containing a resin.

Overall Thickness: 9.2 mm (0.367 in.)

Weight: 15.6 kg/m² (3.20 PSF).

Unit Size: Two units = 1219.2mm x 2727.3mm (48 in. x 107-3/8 in.).

Mounting: Type A Mount per ASTM E 795. All perimeter panel edges were covered with straight edged metal bars.

Sample Size: 2438.4mm x 2727.3mm (96 in. x 108 in.).

Preconditioning: Minimum 24 hours at 70° F, 55% RH.

Test Results: The results of the tests are given on pages 3 and 4.

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Sound Absorption Test Data per C423 - 09a

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No. of test report: **NGC4012078**

Date of test: 7/23/2012

Temp. [°C]: 22.5

Humidity [%]: 52

Spec. Size [m²]: 6.689

Frequency [Hz]	Absorption Coefficients a_s	Avg. Decay Rate	
		Empty d (empty) [dB/s]	Specimen d (specimen) [dB/s]
100	0.09	8.61	9.44
125	0.03	9.32	9.59
160	0.00	7.96	7.98
200	0.01	7.65	7.70
250	0.01	8.05	8.13
315	0.02	7.39	7.60
400	0.06	7.10	7.65
500	0.10	7.02	7.87
630	0.09	6.59	7.42
800	0.09	6.28	7.08
1000	0.08	6.58	7.29
1250	0.07	7.03	7.61
1600	0.06	7.43	7.95
2000	0.05	8.31	8.80
2500	0.05	8.92	9.40
3150	0.04	8.80	9.15
4000	0.02	8.54	8.70
5000	-0.02	8.17	8.03

Reverberation Room Volume: 282.1 m³

Noise Reduction Coefficient NRC: **0.05**

Avg. 250, 500, 1000, 2000 Hz : **0.060**

Sound Absorption Average SAA: **0.06**

Avg. 200 - 2500 Hz: **0.058**

NOTE: Estimates of repeatability and reproducibility for sound absorption coefficients of a specimen are referenced in ASTM C423 - 09a test method.

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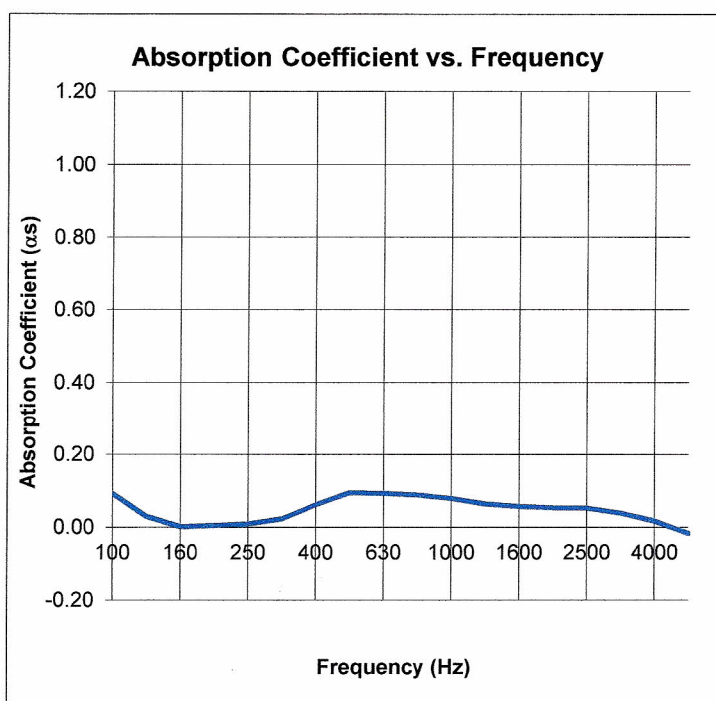
Sound Absorption Test Data per C423 - 09a

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Test report: **NGC4012078**
 Date of test: 7/23/2012
 Spec. Size [m²]: 6.689
 Room Vol.[m³]: 282.1
 Temp. [°C]: 22.5
 Humidity [%]: 52

Noise Reduction Coefficient NRC: 0.05
Sound Absorption Average SAA: 0.06

Frequency [Hz]	Absorption Coefficients α_s
100	0.09
125	0.03
160	0.00
200	0.01
250	0.01
315	0.02
400	0.06
500	0.10
630	0.09
800	0.09
1000	0.08
1250	0.07
1600	0.06
2000	0.05
2500	0.05
3150	0.04
4000	0.02
5000	-0.02



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