



Title: Sound Absorption Test Results

Product: 1/2" Poly Max Acoustical Panel

Application: Wall or Ceiling

Testing Standard: ASTM C423 A-Mount

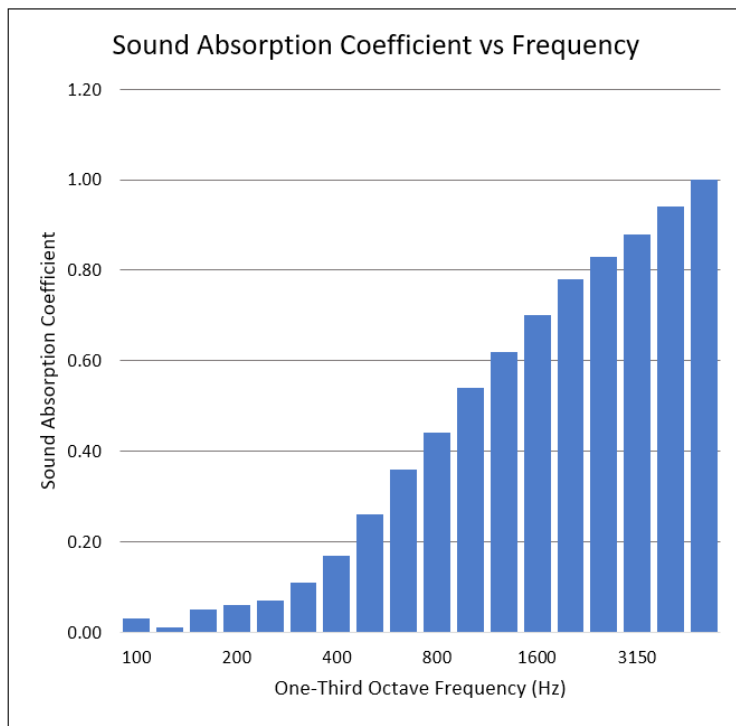
Test Date: 02/04/2010

Why this test: This test evaluates a product's efficiency at absorbing sound at multiple frequencies. The test simulates the product's acoustical performance when attached directly to a wall or ceiling.

Test Result Summary: NRC - 0.40; SAA - 0.41

NRC	SAA
0.40	0.41

Frequency (Hz)	Absorption Coefficient
100	0.03
125	0.01
160	0.05
200	0.06
250	0.07
315	0.11
400	0.17
500	0.26
630	0.36
800	0.44
1000	0.54
1250	0.62
1600	0.70
2000	0.78
2500	0.83
3150	0.88
4000	0.94
5000	1.00



Test ID: 30160 10-2185-2

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Investigative Chemistry
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Materials Testing

Construction Materials
Product Evaluation
Welder Qualification

**SOUND ABSORPTION TESTING OF
WHITE POLYESTER PANELS**

Prepared for:

Rendered by Manufacturer and Released to:
ASI
123 Columbia Court N.
Chaska, MN 55318

Client Reference Number: PrePay

Prepared By:



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The test results contained in this report pertain only to the samples submitted for testing and not necessarily to all similar products.



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Stork Twin City Testing Corporation is an operating unit of Stork Materials Technology B.V., Amsterdam, The Netherlands, which is a member of the Stork Group

JOB NUMBER: 30160 10-2185-2**PAGE:** 2 of 4**DATE:** February 10, 2010**SOUND ABSORPTION / NOISE REDUCTION COEFFICIENT
(ASTM C423)****INTRODUCTION:**

This report presents the results of sound absorption tests conducted on a sample of polyester boards. The testing was authorized by Manufacturer. The testing and data analysis were completed on February 4, 2010.

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Stork Twin City Testing Corporation has been accredited by the U.S. Department of Commerce and the National Institute of Standards and Technology (NIST, formerly NBS) under their National Voluntary Laboratory Accreditation Program (NVLAP, lab code # 200046-0) for conducting ASTM C423 test procedure. This report may not be used to claim product endorsement by NVLAP, NIST or any agency of the U.S. Government.

SUMMARY OF RESULTS:**NOISE REDUCTION COEFFICIENT (NRC)**

<i>Sound Absorption Testing</i>					Test Results	
Test #	Sample Identification	Thickness (in)	Total Weight (lbs)	Weight (psf)	NRC	SAA
2	1/2" Polyester Panels	0.5	28.5	0.4	0.40	0.41

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SAMPLE IDENTIFICATION:

Manufacturer : Rendered by Manufacturer and released to: ASI

Sample #2, Model # : 1/2" Polyester Panel

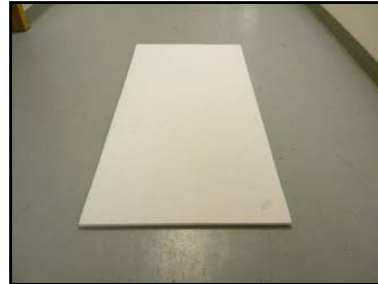
Panel Size : 24" x 48" x 1/2"

Panel Weight : 3.2-lbs (0.4-psf)

Quantity of Panels: 9

Area tested : 72-ft²

Specimen Description : The material was in panel form.



TEST METHOD:

Sound Absorption Test

ASTM C 423-09," Sound Absorption and Sound Absorption Coefficient by the Reverberation Room Method", was followed in every respect. The samples were tested in a Type A mounting (on the floor).

NRC was calculated by rounding the sound absorption coefficients for 250, 500, 1000 and 2000 Hz to the nearest 0.05. SAA was calculated by rounding the sound absorption coefficients for the twelve frequencies from 200 Hz to 2500 Hz to the nearest 0.01.

TEST EQUIPMENT:

<u>Manufacturer</u>	<u>Model</u>	<u>Description</u>	<u>S/N</u>
Norwegian Electronics	NE830	Real Time Analyzer	10722
Brüel & Kjær	3923	Rotating Microphone Boom	815424
Norsonic (Source Rm)	1230	Pressure Condenser Microphone	26361
Brüel & Kjær (Term Rm)	4192	Pressure Condenser Microphone	2360314

REMARKS:

The test sample will be retained for a period of **15-days** and then discarded unless notified by the client.

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TEST DATA:

Filename
test #2

ASTM C423 - Sound Absorption

Product	Model #	Quantity	Comment
1/2" Acoustic Panels		1	

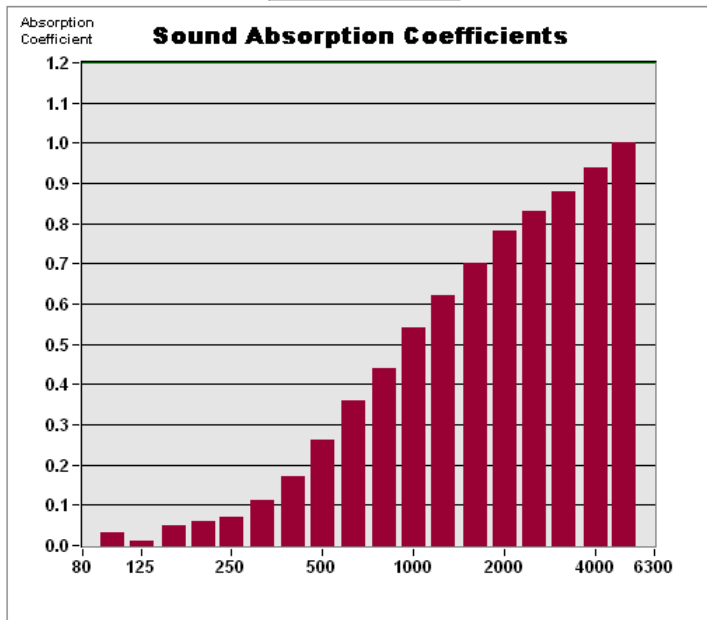
Sample Size - Wt.
108.0 in x 96.0 in x 1/2" - 28 lbs

Sample Description
(9) 1/2" x 24" x 48" Polyester Acoustical Panels :

Time Stamp
Thu, Feb 04, 2010 - 10:47 AM

Total Sample Area **72.0 ft²**

F (Hz)	Absorption Coefficient	Absorption (Sabins)*
100	0.03	2.44
125	0.01	1.01
160	0.05	3.36
200	0.06	4.57
250	0.07	4.89
315	0.11	7.91
400	0.17	12.48
500	0.26	18.48
630	0.36	25.84
800	0.44	31.69
1000	0.54	38.80
1250	0.62	44.46
1600	0.70	50.15
2000	0.78	56.00
2500	0.83	59.57
3150	0.88	63.53
4000	0.94	68.00
5000	1.00	71.82



Temp (°C) **20.8** R.H. (%) **50** ATM (mbar) **1002**

SAA = 0.41 NRC = 0.40

* total absorption based on 72.0 ft²

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