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Investigative Chemistry Geotechnical Construction Materials  
Non Destructive Testing Failure Analysis Product Evaluation  
Metallurgical Analysis Materials Testing Welder Qualification

**SOUND ABSORPTION TESTING CONDUCTED ON THE  
ACOUSTI-CURTAIN**

**Prepared for:**  
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**Bend, Oregon 97701**

**Client Purchase Order Number: Contract**

**Prepared By:**



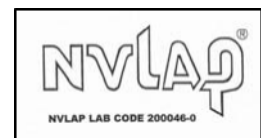
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**The test results contained in this report pertain only to the samples submitted for testing and not necessarily to all similar products.**



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**Noise Reduction Coefficient (ASTM C423-07)**

**INTRODUCTION:**

This report presents the results of the sound absorption testing conducted on the Acousti-Curtain. The test sample was submitted by Mr. Mike Mohs of Cascade Audio Engineering. This work was completed on March 18, 2008.

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**TEST RESULTS SUMMARY:**

<i>TYPE G NRC TEST</i>			Test Results		
Test #	SAMPLE DESCRIPTION	ADDITIONAL INFORMATION	NRC	SAA	--
1	Acousti-Curtain	Red Side Exposed	<b>0.55</b>	<b>0.56</b>	--

See 'TEST DATA' section for detailed results.

**SPECIMEN DESCRIPTION:** (Also see "Test Results")

The test specimen was identified by ASI as Acousti-Curtain. The material had dimensions of 96" x 120" x 0.17" and weighed 12-lbs (0.15-psf). The curtain contained 20 steel grommets (2-1/2") on one edge for mounting.

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**TEST PROCEDURE****Sound Absorption Test**

ASTM C 423-07," Sound Absorption and Sound Absorption Coefficient by the Reverberation Room Method", was followed in every respect. The test sample was tested in a Type G Mounting style. The material was suspended by the steel grommets 5" from the wall surface and 27" from the floor surface.

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:**

Manufacturer	Model	Description	S/N
Norwegian Electronics	NE830	Real Time Analyzer	11511
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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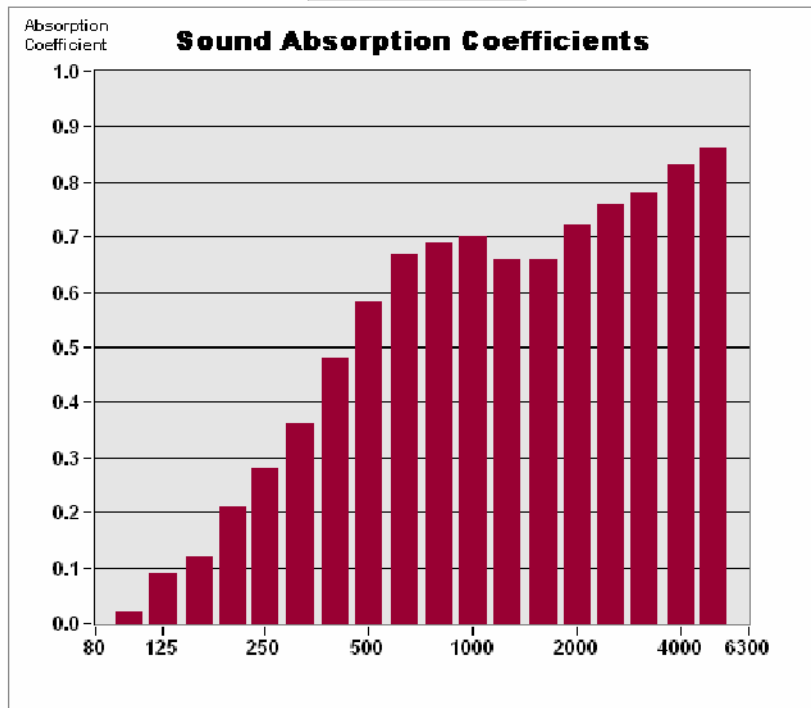
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**TEST RESULTS:**

Filename <b>test #1</b>		<b><i>ASTM C423 - Sound Absorption</i></b>			
Client <b>Acoustical</b>	Product <b>Acousti Curtain</b>	Model # <b>CASCO 3 SO# 14785</b>	Quantity <b>1</b>	Comment <b>Tested Red side</b>	
Sample Size - Wt. <b>96.0 in x 120.0 in x 0.16" - 12 lbs</b>	Sample Description <b>Acoustical Surfaces: AcoustiCurtain CASCO 3 SO#14785 : 8' x 10' Curtain :</b>				
Time Stamp <b>Tue, Mar 18, 2008 - 10:20 AM</b>					

Total Sample Area **80.0 ft<sup>2</sup>**

F (Hz)	Absorption Coefficient	Absorption (Sabins)*
100	0.02	1.62
125	0.09	7.24
160	0.12	9.83
200	0.21	16.49
250	0.28	22.57
315	0.36	28.68
400	0.48	38.05
500	0.58	46.51
630	0.67	53.99
800	0.69	55.48
1000	0.70	56.29
1250	0.66	52.97
1600	0.66	53.04
2000	0.72	57.70
2500	0.76	60.65
3150	0.78	62.54
4000	0.83	66.40
5000	0.86	68.84



Temp (°C) **20.9**    R.H. (%) **56**    ATM (mbar) **987**

**SAA = 0.56    NRC = 0.55**

\* total absorption based on 80.0 ft<sup>2</sup>

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