SINCE 1896

REPORT

Intertek ETL SEMKO

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3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 3120428 Date: April 13, 2007

REPORT NO. 3120428CRT-002

SOUND TRANSMISSION LOSS TEST AND CLASSIFICATION OF A CORNELL IRON WORKS UN-INSULATED TRANZFORM ACCORDIAN SPACE DOOR

RENDERED TO

CORNELL IRON WORKS, INC.
CRESTWOOD INDUSTRIAL PARK
24 ELMWOOD AVE.
MOUNTAIN TOP, PA 18707

INTRODUCTION

This report gives the results of a Sound Transmission Loss test and the determination of the Sound Transmission Class on a Cornell Iron Works Un-insulated Tranzform Accordian Space Door. The test sample was selected and supplied by the client and received at the laboratories on April 12, 2007. It appeared to be in a new, unused condition upon arrival.

AUTHORIZATION

Signed quote number 500027047.

TEST METHOD

The specimen was tested in accordance with the American Society for Testing and Materials designation ASTM E90-2004, "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions", and classified in accordance with the American Society for Testing and Materials designation ASTM E413-04, "Classification for Rating Sound Insulation."

GENERAL

The sound-insulating property of a partition element is expressed in terms of the sound transmission loss. The procedure for determining this quantity is to mount (and perimeter seal) the test specimen as a partition between two reverberation rooms. Sound is introduced in one of the rooms (the source room) and measurements are made of the noise reduction between source room (10,000 cu. ft.) and receiving room (16,640 cu. ft.). The rooms are so arranged and constructed that the only significant sound transmission between them is through the test specimen.

The test opening is constructed such that it is approximately one inch larger in size than the test specimen. The specimen is placed in the test opening on a half-inch bead of "DUX-SEAL", a dense, non-hardening, clay-like material, to isolate it from the supporting base. The space between the test specimen and the wall opening is sealed on both sides employing the same sealing material.

The purpose of the Sound Transmission Class (STC) is to provide a single figure rating that can be used for comparing the sound-insulating properties of partition elements used for general building design purposes. The higher the rating (STC) the greater the sound insulating properties of the partition.

DESCRIPTION OF TEST SPECIMEN

The un-insulated Tranzform accordion space door measured 45½ inches wide by 72 inches high and was pre-installed in a heavy wood construction frame. The section was fastened and sealed around the perimeter and tested as an inoperable panel.

RESULTS OF TEST

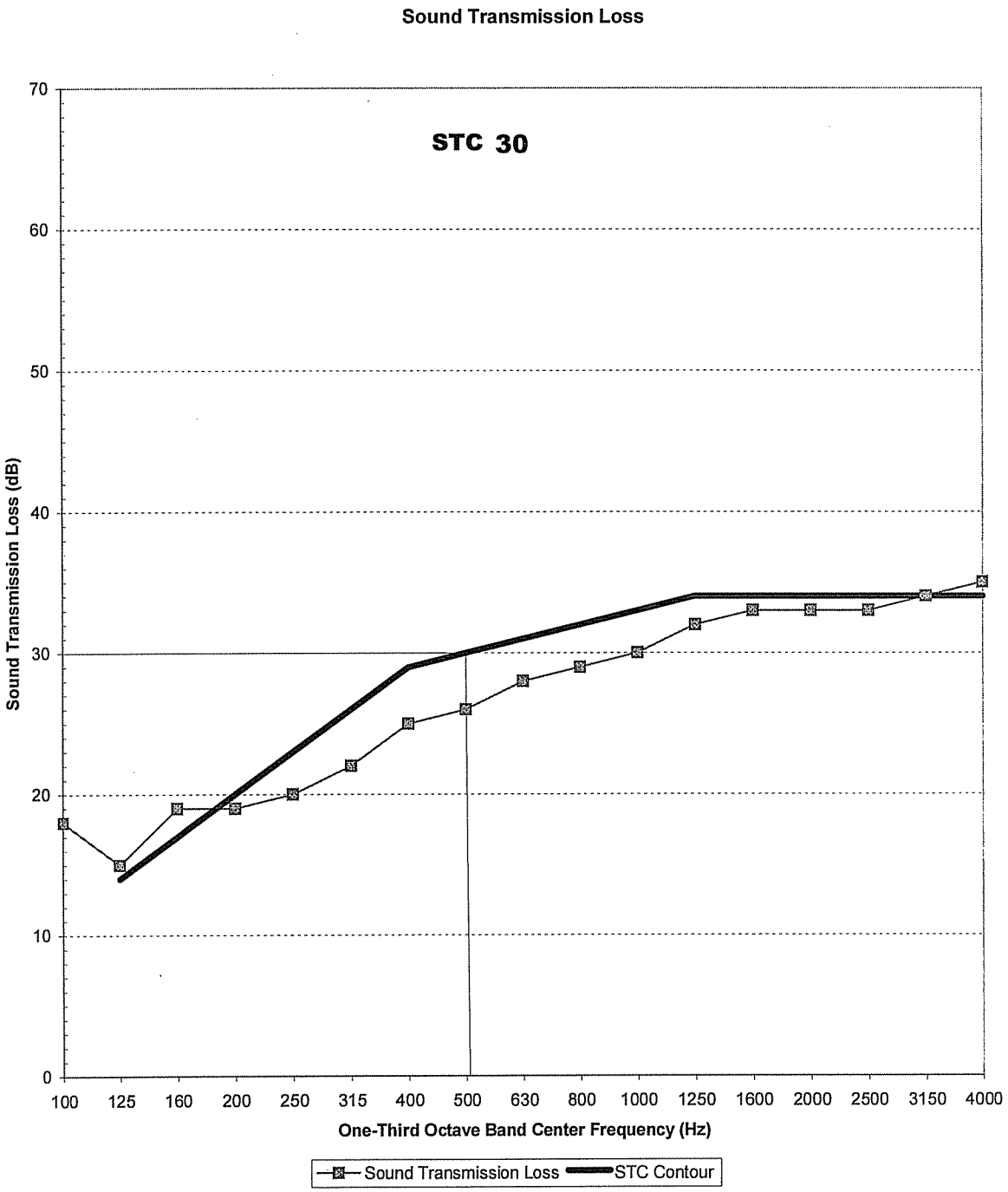
1/3 Octave Band Center Frequency Hz	Sound Transmission Loss in dB
80	16
100	18
125	15
160	19
200	19
250	20
315	22
400	25
500	26
630	28
800	29
1000	30
1250	32
1600	33
2000	33
2500	33
3150	34
4000	35
5000	34
Sound Transmission Class	30

PRECISION

For any pair of rooms and microphone system, the 95% confidence interval ΔTL, for transmission loss must be less than the following.

Range of One Third Octave Bands	Transmission Loss Uncertainty, dB	
	Required	Actual
125 and 160	3	< 1.5
200 and 250	2	< 1.5
315 - 4000	1	< 1

RESULTS OF TEST – cont'd.



CORNELL IRON WORKS

REMARKS

1. Aging Period: None
2. Ambient Temperature: 71°F
3. Relative Humidity: 41%

CONCLUSION

The test method employed for this test has no pass-fail criteria, therefore, the evaluation of the test results is left to the discretion of the client.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test: April 12, 2007

Report Approved by:

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Engineering Team Leader
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James R. Kline
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Acoustical Testing

Attachments: None