FOR THE SCOPE OF
ACCREDITATION UNDER NVLAP
LAB CODE 100402-0.

REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 100865441 Date: September 24, 2012

REPORT NO. 100865441CRT-002

**SOUND TRANSMISSION LOSS TESTS
AND CLASSIFICATION OF A
GREENBERO SILENT PANEL**

RENDERED TO

**GREENBERO
KIRSCHPLANTAGE 47
22926 AHRENSBURG
GERMANY**

INTRODUCTION

This report gives the results of Sound Transmission Loss tests and the determination of the Sound Transmission Class on a Greenbero Silent Panel. The test specimen was supplied by the client and received at the laboratories on September 3, 2012. The sample appeared to be in a new, unused condition.

AUTHORIZATION

Signed Intertek Quotation No. 500400509.

TEST METHOD

The specimen was tested in accordance with the American Society for Testing and Materials designation ASTM E90-2009, "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 E413-2010, "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 an 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 test specimen consisted of a 48 inch wide by 24 inch tall Greenbero Silent Panel. The underlayment shiplap board consisted of sand sandwiched between corrugated cardboard panels. The panel weighed 27 lbs.

Test Number 1 – Sample tested alone

Test Number 2 – Sample tested with 5/8 inch sheetrock directly attached to the receiving room side.

RESULTS OF TESTS

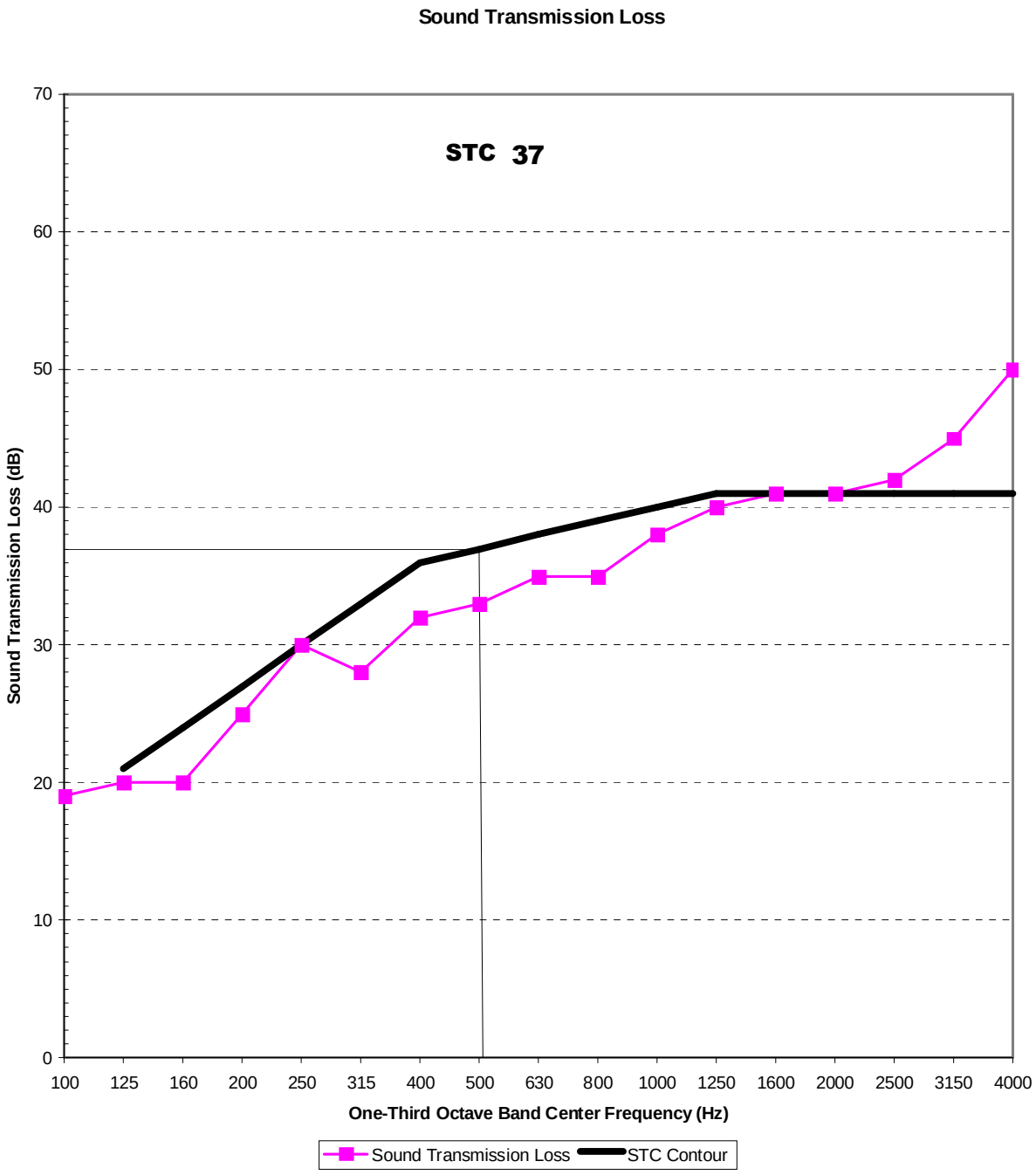
1/3 Octave Band Center Frequency (Hz)	Sound Transmission Loss in dB	
	Test Number 1	Test Number 2
80	14	14
100	19	19
125	20	24
160	20	24
200	25	28
250	30	33
315	28	31
400	32	32
500	33	32
630	35	34
800	35	37
1000	38	42
1250	40	46
1600	41	50
2000	41	49
2500	42	50
3150	45	54
4000	50	56
5000	53	60
Sound Transmission Class	37	39

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

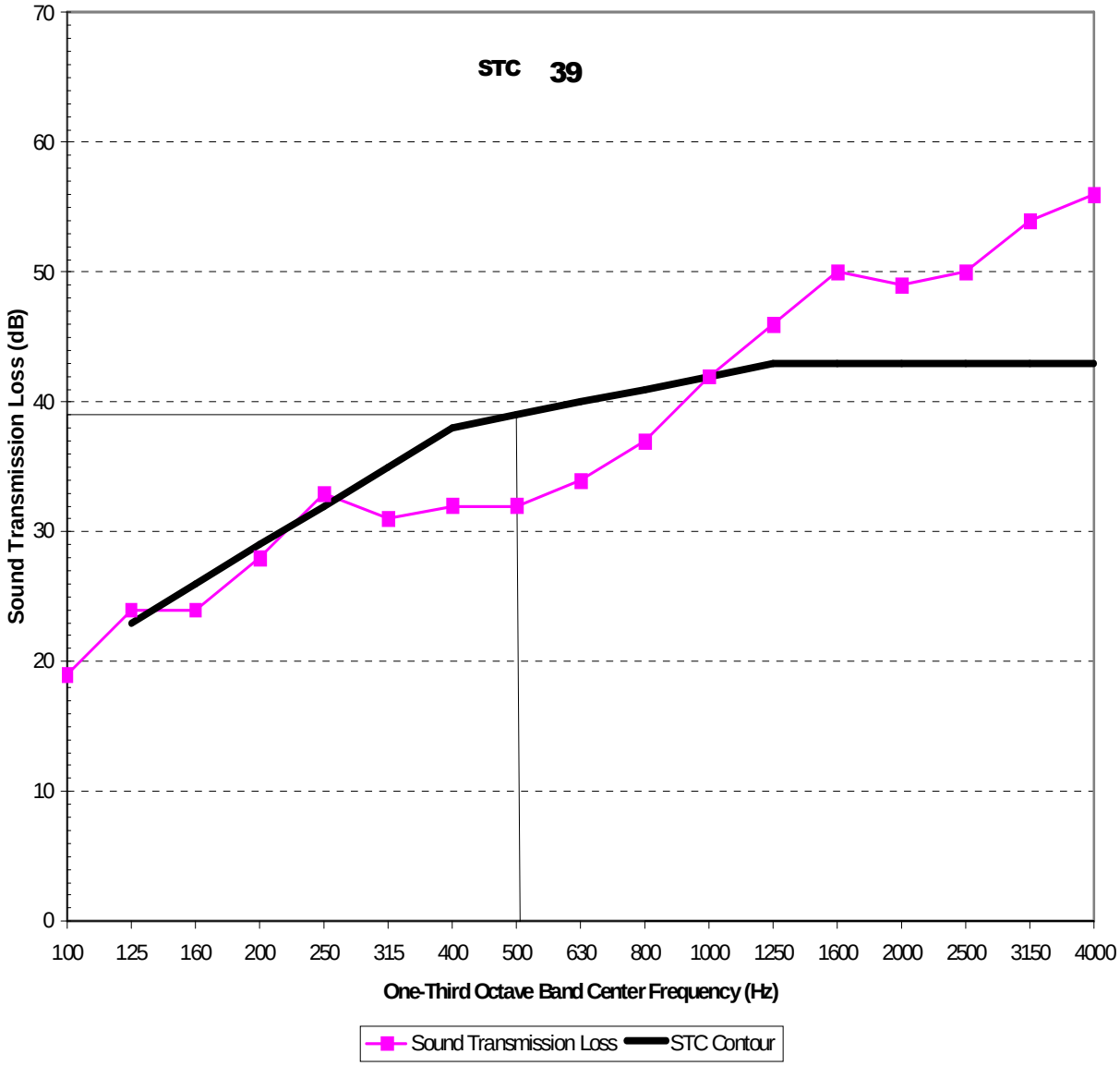
TEST NUMBER 1



GREENBERO

TEST NUMBER 2

Sound Transmission Loss



GREENBERO

REMARKS

1. Ambient Temperature: 73℉
2. Relative Humidity: 46%

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 Tests: September 12, 2012

Report Approved by:

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Attachments: None