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REPORT

Intertek ETL SEMKO

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Accredited by the National Voluntary Laboratory Accreditation Program for the Specific Accreditation under Lab Code 100402-0.

Order No. 3095178 Date: May 30, 2006

REPORT NO. 3095178CRT-001

SOUND TRANSMISSION LOSS TEST AND CLASSIFICATION OF AN 8 INCH THICK CONCRETE FILLED OCTAFORM WALL SYSTEM

RENDERED TO

INTERTEK ETL SEMKO - VANCOUVER
1500 BRIGANTINE DRIVE
COQUITLAM, BC
CANADA

INTRODUCTION

This report gives the results of a Sound Transmission Loss test and the determination of the Sound Transmission Class on an 8 inch thick concrete filled Octaform Wall System. The test sample was supplied by the client and the form was poured with concrete by a representative of the client at Intertek on April 25, 2006

AUTHORIZATION

Purchase Order No. C13320-R from Intertek Vancouver.

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 E413-2004, "Classification for Rating Sound Insulation" and ASTM Standard E1332-90 (Re-Approved 2003) entitled, "Standard Classification for Determination of Outdoor-Indoor Transmission Class".

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.

The purpose of the Outdoor-Indoor Transmission (OITC) is to provide a single number rating that can be used for comparing building façade designs, including walls, doors, windows and combinations thereof. This rating is designed to correlate with subjective impressions of the ability of building elements to reduce the overall loudness of ground and air transportation noise. It is intended to be used as a rank ordering device.

DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of a 45 inch wide by 65 inch high by 8 inch thick concrete filled Octaform Wall System . The forms were extruded PVC. Plastic webbing bridged and supported the forms. The forms were filled with 80 ±30mm, maximum aggregate size 20mm, Type 10 cement and allowed to cure for over 28 days prior to testing.

RESULTS OF TEST

1/3 Octave Band Center Frequency Hz	Sound Transmission Loss in dB
80	32
100	35
125	38
160	41
200	43
250	44
315	50
400	54
500	54
630	53
800	49
1000	51
1250	54
1600	55
2000	58
2500	60
3150	68
4000	66
5000	60
Sound Transmission Class	54
Outdoor-Indoor Transmission Class	46

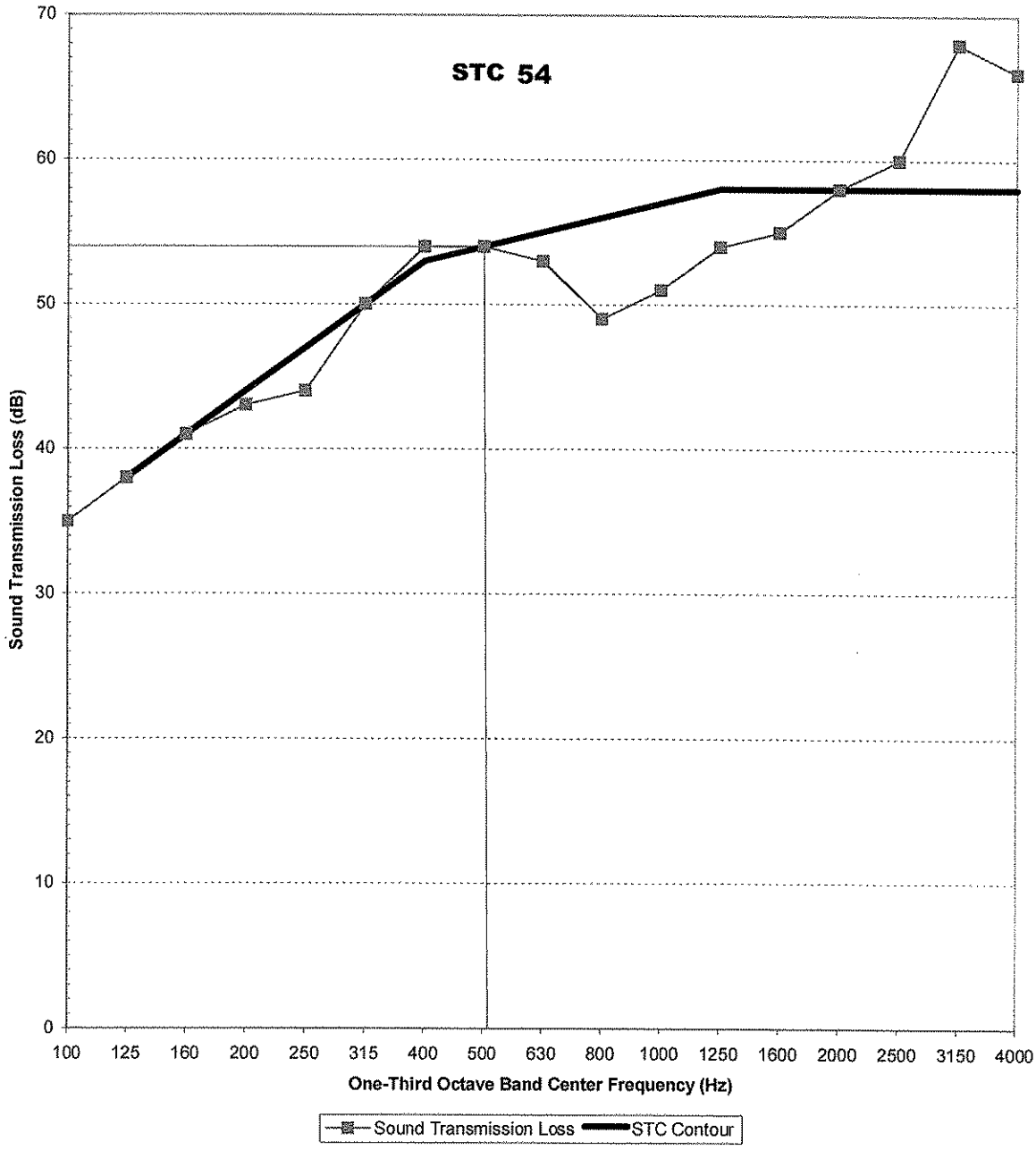
PRECISION

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

Checked by: 4 / C

Sound Transmission Loss



Checked by: JK

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REMARKS

1. Curing Period: Over 28 days
2. Ambient Temperature: 71°F
3. Relative Humidity: 62%

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: May 26, 2006

Report Approved by:

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Attachments: None