TEST REPORT

for

Novateck USA dba Silent Blue
1040 SW 10th Avenue #6
Pompano Beach, Florida 33069
Frederick Leonard / 954-960-5425

Sound Transmission Loss Test

ASTM E 90 – 09 (2016) / E 413 – 16

On

**6 Inch (152 mm) Concrete Slab Floor- Ceiling Assembly
Overlaid with SPC Floor, 1220mm x 178mm x 5.5mm (0.5mm / 21mil) + Ceramic Bead overlay with 1.5mm W23 underlayment attached,
Unilin clikc, embossed surface, virgin material**

Report Number: NGC 5019088

Assignment Number: G-1638

Test Date: 10/21/2019

Report Date: 10/28/2019

Submitted by: _____
Anthony J. Rivers
Test Technician

Reviewed by: _____
Robert J. Menchetti
Director

Revision Summary:

Date	SUMMARY
Approval Date: 10/28/2019	Original issue date: 10/28/2019 Original NGCTS report: NGC 5019088

Report Number: NGC 5019088

Test Method: This test method conforms explicitly with the American Society for Testing and Materials Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements – Designation: E 90 – 09 (2016) / E 413 - 16.

Specimen Description: 6 inch concrete slab floor ceiling assembly overlaid with, according to client, SPC Floor, 1220mm x 178mm x 5.5mm (0.5mm / 22mil) + Ceramic Bead overlay with 1.5mm W23 underlayment attached, Unilin click, embossed surface, virgin material.

The test specimen was a floor assembly and was observed to consist of the following:
All weights and dimension are averaged:

- 1 layer of, according to the client, SPC Floor, 1220mm x 178mm x 5.5mm (0.5mm / 22mil) + Ceramic Bead overlay with 1.5mm W23 underlayment attached, Unilin click, embossed surface, virgin material. The flooring was floating on the concrete slab. Measured average thickness: 5.59 mm (0.22 in.). Measured average weight: 8.25 kg/m^2 (1.69 PSF)
- 152.4 mm (6 in.) thick reinforced concrete slab, weighing: 366.2 kg/m^2 (75.00 PSF)

The overall weight of the test assembly is: 374.40 kg/m^2 (76.69 PSF)

The perimeter of the test frame was sealed with a rubber gasket and a sand filled trough.

The test frame was structurally isolated from the receiving room.

Specimen size: 3657.6 mm x 4876.8 mm (12 ft. x 16 ft.)

Conditioning: Concrete slab cured for a minimum of 28 days.

Test Results: The results of the tests are given on pages 4 and 5 of the report.

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Sound Transmission Loss Test Data

Test: ASTM E 90 - 09 (2016) / ASTM E 413 - 16

Test Report: NGC 5019088 Date: 10/18/2019
Specimen Size [m²]: 17.8

Source room		Receiving room	
Volume [m³]:	86	Volume [m³]:	127
Rm Temp [°C]:	25	Rm Temp [°C]:	22
Humidity [%]:	58	Humidity [%]:	56

Sound Transmission Class STC [dB]: 50

Sum of Unfavorable Deviations [dB]: 28
Max. Unfavorable Deviation [dB]: 5 at 500 Hz

Frequency [Hz]	STL [dB]	L1 [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔSTL
80	35	102.0	70.2	23.0	3.2		2.18
100	36	103.9	71.4	25.8	3.5		4.85
125	31	103.6	77.2	20.1	4.6	3	2.04
160	36	106.1	75.5	14.4	5.4	1	2.01
200	39	106.8	73.0	14.9	5.2	1	0.65
250	41	102.7	66.5	16.2	4.9	2	0.83
315	43	101.3	63.1	16.4	4.9	3	1.25
400	45	100.6	60.9	16.9	5.3	4	1.09
500	45	101.6	61.2	17.8	4.6	5	0.90
630	46	101.5	60.4	18.2	4.9	5	0.57
800	49	100.0	55.7	19.0	4.7	3	0.73
1000	53	97.8	49.7	18.9	4.9		0.65
1250	53	96.0	47.2	19.9	4.2	1	0.74
1600	56	97.2	45.4	21.3	4.2		0.71
2000	62	99.4	40.9	24.2	3.5		0.94
2500	64	101.1	40.1	26.5	3.0		0.95
3150	66	100.1	36.9	28.6	2.7		1.45
4000	67	97.6	32.9	32.5	2.3		1.82
5000	70	91.1	22.5	37.5	1.4		1.99

STL = Sound Transmission Loss, dB
L1 = Source Room Level, dB
L2 = Receiving Room Level, dB
d = Decay Rate dB/second
Δ STL = Uncertainty for 95% Confidence Level

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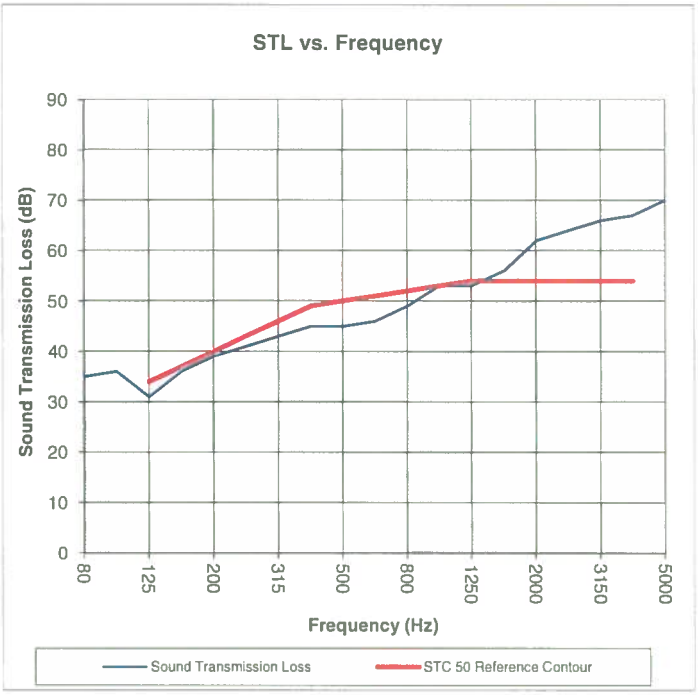
Sound Transmission Loss Test Data

Test: ASTM E 90 - 09 (2016) / ASTM E 413 - 16

Test Report: NGC 5019088
Test Date: 10/18/2019
Specimen Size [m²]: 17.8

Sound Transmission Class STC = 50 dB

Frequency [Hz]	STL [dB]	ΔSTL
80	35	2.18
100	36	4.85
125	31	2.04
160	36	2.01
200	39	0.65
250	41	0.83
315	43	1.25
400	45	1.09
500	45	0.90
630	46	0.57
800	49	0.73
1000	53	0.65
1250	53	0.74
1600	56	0.71
2000	62	0.94
2500	64	0.95
3150	66	1.45
4000	67	1.82
5000	70	1.99



* Due to high insulating value of specimen, background levels limit results at these frequencies.

STL = Sound Transmission Loss, dB
Δ STL = Uncertainty for 95% Confidence Level

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