TEST REPORT

for

Regupol America LLC
11 Ritter Way
Lebanon, PA 17042
Florian Sassmannshausen / 717-675-2190

Sound Transmission Loss Test

ASTM E 90 – 09 / E 413 – 10

On

6 Inch Concrete Slab Floor – Ceiling Assembly
Overlaid with 1 layer of Regupol Vibration 200 (17 mm)
and a 4 Inch Concrete Slab

Report Number: NGC 5016055

Assignment Number: G-1296

Test Date: 05/10/2016

Report Approval Date: 05/19/2016

Submitted by: _____
Anthony J. Rivers
Test Technician

Reviewed by: _____
Robert J. Menchetti
Director

Revision Summary:

Date	SUMMARY
Approval Date: 05/19/2016	Original issue date: 05/19/2016 Original NGCTS report #: NGC 5016055

Report Number: NGC 5016055

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 / E 413 - 10.

Specimen Description: 6 inch concrete slab floor-ceiling assembly, overlaid with according to client, 1 layer of Regupol Vibration 200 (17 mm) and a 4 inch concrete slab.

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

- 101.6 mm (4 in.) thick reinforced concrete slab, weighing: 223.30 kg/m^2 (45.74 PSF)
- 1 layer of, according to the client, Regupol Vibration 200 (17 mm). The Regupol Vibration 200 (17 mm) was floating on the 6 inch concrete slab. Measured thickness: 18.29 mm (0.72 in.). Measured weight: 5.17 kg/m^2 (1.06 PSF)
- 152.4 mm (6 in.) thick reinforced concrete slab, weighing: 366.15 kg/m^2 (75.0 PSF)

The overall weight of the test assembly is: 594.63 kg/m^2 (121.80 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 - 04 / ASTM E 413 - 10

Test Report: NGC 5016055 Date: 5/10/2016
Specimen Size [m²]: 17.8

Source room		Receiving room	
Volume [m³]:	84.75	Volume [m³]:	128
Rm Temp [°C]:	20	Rm Temp [°C]:	20
Humidity [%]:	60	Humidity [%]:	60

Sound Transmission Class STC [dB]: 58

Sum of Unfavorable Deviations [dB]: 26
Max. Unfavorable Deviation [dB]: 7 at 250 Hz

Frequency [Hz]	STL [dB]	L1 [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔSTL
80	38	100.6	65.0	29.4	2.4		2.05
100	40	104.4	68.8	20.7	4.4		5.15
125	36	104.0	72.8	16.4	4.9	6	2.07
160	45	106.1	66.7	15.7	5.5		1.57
200	45	105.2	66.1	14.2	5.9	3	1.14
250	44	102.4	63.8	16.4	5.4	7	1.83
315	49	102.3	58.3	15.0	5.0	5	1.41
400	53	100.0	52.2	16.3	5.1	4	1.45
500	57	101.8	50.0	17.1	5.3	1	1.40
630	60	102.8	47.9	16.8	5.2		1.31
800	62	101.4	44.0	17.1	4.6		0.86
1000	66	98.9	37.7	16.8	4.8		1.23
1250	68	96.2	32.8	17.9	4.6		1.60
1600	73	97.8	29.4	19.9	4.6		0.62
2000	75	99.3	27.8	21.9	3.4		1.30
2500	77	101.1	27.1	24.2	3.0		1.62
3150	79	100.7	25.1	26.2	3.4		1.71
4000	80	98.1	20.2	29.8	2.2		2.39
5000	78	91.5	15.5	34.3	2.1		3.50

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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(716) 873-9750 • Fax (716) 873-9753 • www.ngctestingservices.com

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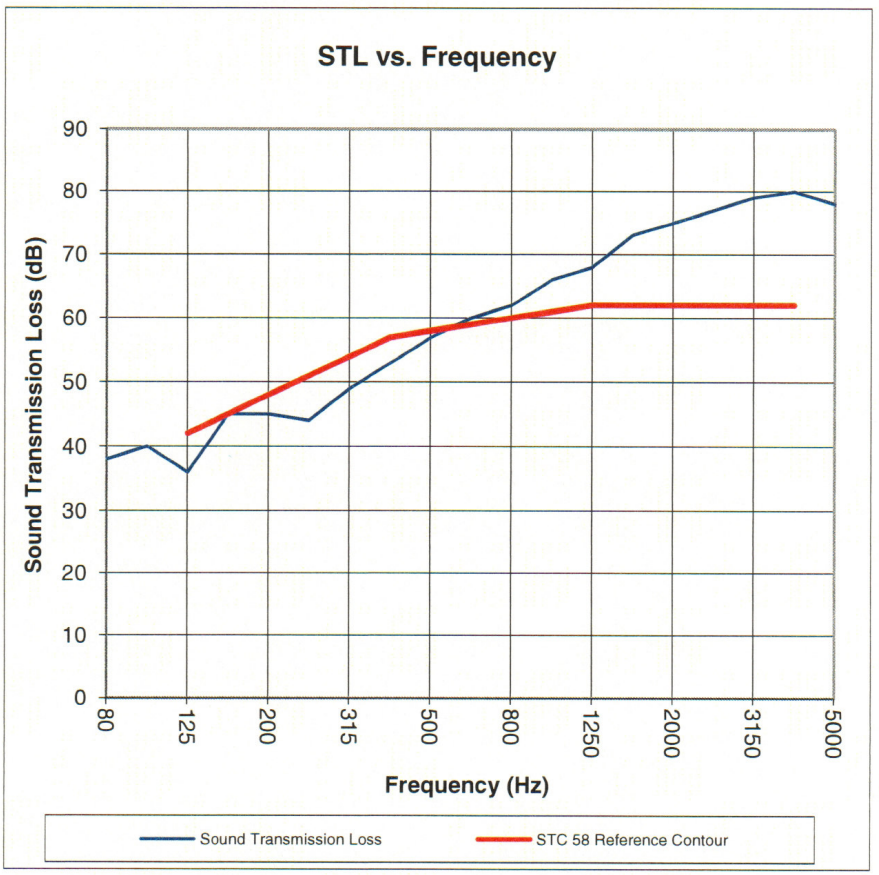
Test Date: 5/10/2016
Specimen Size [m²]: 17.8

Sound Transmission Class STC = 58 dB

Frequency [Hz]	STL [dB]	ΔSTL
80	38	2.05
100	40	5.15
125	36	2.07
160	45	1.57
200	45	1.14
250	44	1.83
315	49	1.41
400	53	1.45
500	57	1.40
630	60	1.31
800	62	0.86
1000	66	1.23
1250	68	1.60
1600	73	0.62
2000	75	1.30
2500	77	1.62
3150	79	1.71
4000	80	2.39
5000	78	3.50



* 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