NGC Testing Services

Acoustical Testing Laboratory

NVLAP

Accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code 200291

TEST REPORT

For

Sound Seal
50 H. P. Almgren Dr.
Agawam, MA 01001
Jamie Vallee / 413-789-1770

Impact Sound Transmission Test

ASTM E 492 – 09 / ASTM E 989 – 06
On

8 Inch (203mm) Concrete Slab Overlaid with Quarry Tile and Mortar on 12mm Impacta-Regupol PROBASE Underlayment

Report Number: NGC 7010070

Assignment Number: G-609

Test Date: 08/09/2010

Report Date: 08/30/2030

Submitted by: Craig G. Cooper
Craig G. Cooper
Test Engineer

Reviewed by:
Robert J. Menchetti
Director

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

Report Number: NGC 7010070

Test Method: This test method is in accordance with American Society for Testing and Materials Standard Test Method for Laboratory Measurement of Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine - Designation: E 492 – 09 / E 989 - 89.
The uncertainty limits of each tapping machine location met the precision requirements of section A1.4 of ASTM E 492-09.

Specimen Description: 8 inch (203mm) Concrete Slab Overlaid with according to client, Quarry tile and mortar on 12mm Impacta-Regupol PROBASE underlayment.

The test specimen was a floor-ceiling assembly consisting of the following:

- 152mm x 152mm x 12.7mm (6 in. x 6 in. x ½ in.) unglazed clay quarry tile 27.3 kg/m^2 (5.6 PSF) installed using latex-modified Thin-set mortar and latex-modified sanded grout mixtures 4.9 kg/m^2 (1.0 PSF).
- 1 layer of 12.2mm (0.481 in.) 12mm Impacta-Regupol PROBASE underlayment. Sample weight was found to be 8.9 kg/m^2 (1.82 PSF).
- 8 Inch (203mm) thick reinforced concrete slab 488.2 kg/m^2 (100 PSF).

The overall weight of the test assembly is 529.3 kg/m^2 (108.4 PSF).

The perimeter of the concrete slab was sealed with rubber gasketing and a sand filled trough. The test assembly is structurally isolated from the receiving room.

Specimen size: 3658mm x 4877mm (12 ft x 16 ft.)

Conditioning: Concrete slab cured for a minimum of 28 days.
Mortar and grout cured for a minimum of 7 days.

Test Results: The results of the tests are given on pages 3 and 4.

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Normalized impact sound pressure level

Test: ASTM E 492 - 09 / ASTM E 989 - 06

Test Report: NGC7010070 Date: 8/9/2010
Specimen Size [m²]: 17.8

Source room
Rm Temp [°C]: 24.5
Humidity [%]: 60

Receiving room
Volume [m³]: 63
Rm Temp [°C]: 23.5
Humidity [%]: 47

Impact Insulation Class IIC [dB]: 53
Sum of Unfavorable Deviations [dB]: 21
Max. Unfavorable Deviation [dB]: 8 at 160 Hz

Frequency [Hz]	L_n [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔL_n
100	60	65.3	15.9	-5.3	1	2.29
125	61	66.3	18.8	-5.3	2	2.68
160	67	72.6	16.0	-5.6	8	1.38
200	65	70.4	16.8	-5.4	6	0.84
250	60	65.1	20.4	-5.1	1	0.61
315	61	65.4	20.8	-4.4	2	0.53
400	59	62.8	22.7	-3.8	1	0.29
500	55	59.2	25.4	-4.2		0.36
630	54	56.9	27.2	-2.9		0.15
800	51	54.1	27.0	-3.1		0.18
1000	48	51.1	28.6	-3.1		0.20
1250	43	45.8	31.0	-2.8		0.25
1600	40	42.7	31.5	-2.7		0.19
2000	39	41.6	34.0	-2.6		0.18
2500	35	37.6	36.4	-2.6		0.16
3150	34	35.3	40.3	-1.3		0.16
4000	30	31.5	46.1	-1.5		0.17
5000	27	27.3	51.6	-0.3		0.27

L_n = Normalized Sound Pressure Level, dB
L2 = Receiving Room Level, dB
d = Decay Time, dB/second
ΔL_n = Uncertainty for 95% Confidence Level

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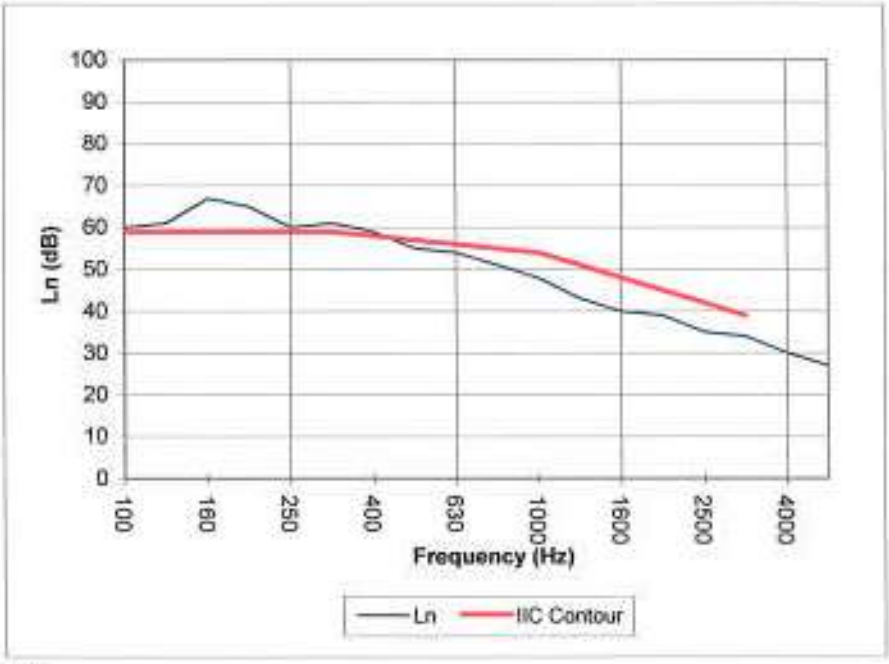
Test Report: NGC7010070
Test Date: 8/9/2010
Specimen Size [m²]: 17.8

Impact Insulation Class IIC [dB]: 53

Frequency [Hz]	L_n [dB]
100	60
125	61
160	67
200	65
250	60
315	61
400	59
500	55
630	54
800	51
1000	48
1250	43
1600	40
2000	39
2500	35
3150	34
4000	30
5000	27



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

L_n = Normalized Sound Pressure Level, dB