



Acoustical Testing Laboratory



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Laboratory Accreditation Program
for the specific scope of accreditation
under Lab Code 200291

TEST REPORT

For

Proflex Products, Incorporated
3406 Dean Street
Naples, FL 34104
Gerard Gigon / 617-749-5648

Impact Sound Transmission Test

ASTM E 492 – 04 / ASTM E 989 – 06

On

**8 Inch (203mm) Concrete Slab Overlaid with Quarry Tile Flooring
over a Layer of 0.250 Inch (6.4mm) Proflex RCU 250 Underlayment**

Report Number: NGC 7009064

Page 1 of 4

Assignment Number: G-508

Test Date: 06/22/2009

Report Date: 07/24/2009

Submitted by:


Steven M. Armenia
Test Technician

Reviewed by:


Robert J. Menchetti
Director

The results reported above apply to specific samples submitted for measurement.
No responsibility is assumed for performance of any other specimen.
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or endorsement by NVLAP or any agency of the U.S. Government.

Report Number: NGC 7009064

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 - 04 / E 989 - 06.

The uncertainty limits of each tapping machine location met the precision requirements of section 11.3 of ASTM E 492-04.

Specimen Description: 8 inch (203mm) Concrete Slab overlaid with, according to client, unglazed clay quarry tile flooring on a layer of 0.250 inch (6.4mm) Proflex RCU-250 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 installed using a latex-modified thin set mortar mixture meeting ANSI Specification 118.11 and a polymer enhanced sanded grout mixture meeting ANSI Specification 118.6 and 118.7. Mortar troweled on with 1/4 in. by 3/8 in. notch trowel. Mortar and grout mixtures sample weight was 32.2 kg/m² (6.6 PSF).
- 1 layer of 6.4mm (0.250 in.) thick Proflex RCU 250 underlayment. Sample weight was found to be 3.6 kg/m² (0.74 PSF). Sample thickness measured 6.7mm (0.265 in.).
- 203mm (8 in.) thick reinforced concrete slab 488.2 kg/m² (100 PSF).
- No ceiling

The overall weight of the test assembly is 524.0 kg/m² (107.34 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 cured minimum of 28 days.
Tile mortar and grout cured for 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 - 04 / ASTM E 989 - 06

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Test Number: NGC7009064

Date: 6/22/2009

Size: 17.8 m²

Source room

Temperature [°C]: 21.5

Humidity [%]: 66

Receiving room

Volume V = 63.0 m³

Temperature [°C]: 21.5

Humidity [%]: 58

Impact Insulation Class IIC = 54 dB

Sum of unfavorable deviations: 30.0 dB

Max. unfavorable deviation: 8.0 dB at 160 Hz

Frequency	L _n	L ₂	T	Corr.	u.Dev.	ΔL _n
[Hz]	[dB]	[dB]	[s]	[dB]	[dB]	
100	57	63.7	4.63	-6.7	-	0.420
125	61	65.7	3.34	-4.7	3	0.208
160	66	71.8	4.11	-5.8	8	0.237
200	66	71.5	3.80	-5.5	8	0.162
250	62	67.0	3.19	-5.0	4	0.145
315	62	67.0	3.07	-5.0	4	0.085
400	60	64.2	2.89	-4.2	3	0.105
500	56	60.1	2.59	-4.1	-	0.067
630	53	57.1	2.40	-4.1	-	0.071
800	51	54.6	2.33	-3.6	-	0.068
1000	49	52.2	2.17	-3.2	-	0.054
1250	44	46.7	2.02	-2.7	-	0.056
1600	41	43.7	2.00	-2.7	-	0.040
2000	40	42.4	1.88	-2.4	-	0.044
2500	39	40.9	1.73	-1.9	-	0.039
3150	36	37.6	1.56	-1.6	-	0.037
4000	31	32.6	1.34	-1.6	-	0.032
5000	28	28.5	1.22	-0.5	-	0.031

L_n = Normalized Sound Pressure Level, dB

L₂ = Receiving Room Level, dB

T = Reverberation Time, seconds

ΔL_n = Uncertainty for 95% Confidence Level

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Normalized impact sound pressure level

Test: ASTM E 492 - 04 / ASTM E 989 - 06

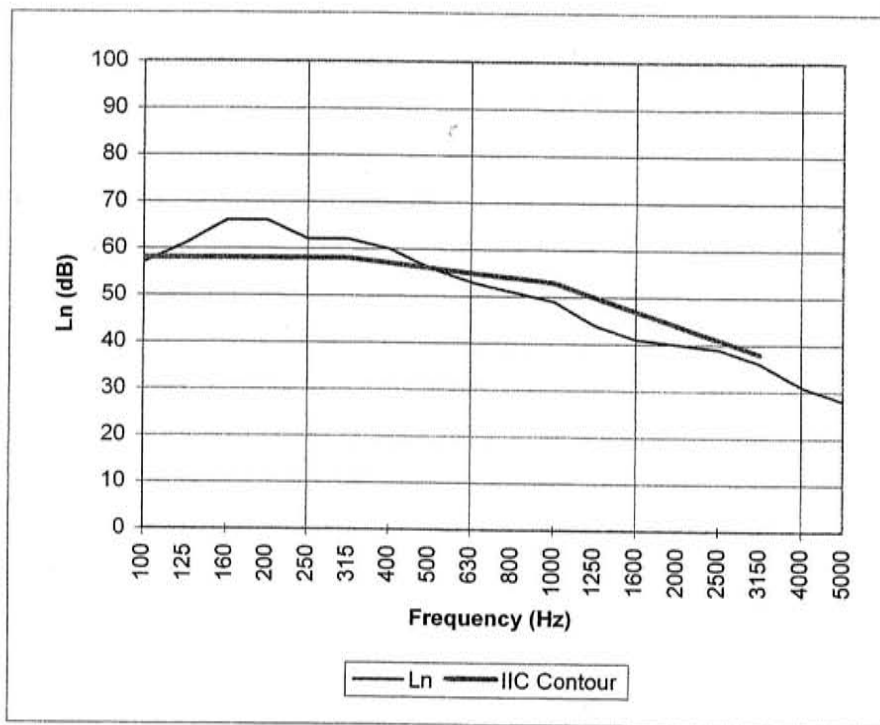
Test Number: NGC7009064

Date: 6/22/2009

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Impact Insulation Class IIC = 54 dB

Frequency	L_n
[Hz]	[dB]
100	57
125	61
160	66
200	66
250	62
315	62
400	60
500	56
630	53
800	51
1000	49
1250	44
1600	41
2000	40
2500	39
3150	36
4000	31
5000	28



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

L_n = Normalized Sound Pressure Level, dB

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Sound Transmission Loss Test

ASTM E 90 - 04 / E 413 - 04

On

8 Inch (203mm) Concrete Slab Overlaid with Quarry Tile Flooring
over a Layer of 0.250 Inch (6.4mm) Proflex RCU 250 Underlayment

Report Number: NGC 5009042

Page 1 of 4

Assignment Number: G-508

Test Date: 06/22/2009

Report Date: 07/24/2009

Submitted by:


Steven M. Armenia
Test Technician

Reviewed by:


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Report Number: NGC 5009042

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- 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 - 04 / E 413 - 04.
- Specimen Description: 8 inch (203mm) Concrete Slab overlaid with, according to client, unglazed clay quarry tile flooring on a layer of 0.250 inch (6.4mm) Proflex RCU-250 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 installed using a latex-modified thin set mortar mixture meeting ANSI Specification 118.11 and a polymer enhanced sanded grout mixture meeting ANSI Specification 118.6 and 118.7. Mortar troweled on with 1/4 in. by 3/8 in. notch trowel. Mortar and grout mixtures sample weight was 32.2 kg/m² (6.6 PSF).
- 1 layer of 6.4mm (0.250 in.) thick Proflex RCU 250 underlayment. Sample weight was found to be 3.6 kg/m² (0.74 PSF). Sample thickness measured 6.7mm (0.265 in.).
- 203mm (8 in.) thick reinforced concrete slab 488.2 kg/m² (100 PSF).
- No ceiling

The overall weight of the test assembly is 524.0 kg/m² (107.34 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 cured minimum of 28 days.
Tile mortar and grout cured for 7 days.

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

The results reported above apply to specific samples submitted for measurement.

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Sound Transmission Loss Test Data

Test: ASTM E 90 - 04 / ASTM E 413 - 04

No. of test report: NGC5009042

Date: 6/22/2009

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Size: 17.84 m²

Source room

Volume V = 53.2 m³

Temperature [°C]: 21.5

Humidity [%]: 66

Receiving room

Volume V = 63.0 m³

Temperature [°C]: 21.5

Humidity [%]: 58

Sound Transmission Class STC = 56 dB

Sum of unfavorable deviations: 29.0 dB

Max. unfavorable deviation: 8.0 dB at 250 Hz

Frequency	STL	L1	L2	T	Corr.	u.Dev.	ΔSTL
[Hz]	[dB]	[dB]	[dB]	[s]	[dB]	[dB]	
100	34	104.5	79.6	4.63	9.1	-	2.236
125	37	105.9	76.6	3.34	7.7	3	1.063
160	44	108.1	72.3	4.11	8.6	-	1.109
200	39	105.6	74.7	3.80	8.3	7	0.748
250	41	104.9	71.0	3.19	7.5	8	1.136
315	49	106.6	65.3	3.07	7.3	3	1.030
400	53	105.7	60.1	2.89	7.1	2	0.693
500	56	104.4	55.3	2.59	6.6	-	0.707
630	56	103.8	54.4	2.40	6.3	1	0.900
800	55	102.5	53.3	2.33	6.1	3	0.316
1000	57	100.4	48.8	2.17	5.8	2	0.224
1250	60	101.3	46.5	2.02	5.5	-	0.300
1600	62	102.1	45.1	2.00	5.5	-	0.447
2000	67	104.0	42.5	1.88	5.2	-	0.548
2500	66	105.6	44.1	1.73	4.9	-	0.806
3150	68	105.5	41.6	1.56	4.4	-	0.889
4000	73	104.6	35.5	1.34	3.7	-	1.204
5000	74	104.3	33.3	1.22	3.3	-	1.470

STL = Sound Transmission Loss, dB
 L1 = Source Room Level, dB
 L2 = Receiving Room Level, dB
 T = Reverberation Time, seconds
 Δ STL = Uncertainty for 95% Confidence Level

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Sound Transmission Loss Test Data

Per: ASTM E 90 - 04 / ASTM E 413 - 04

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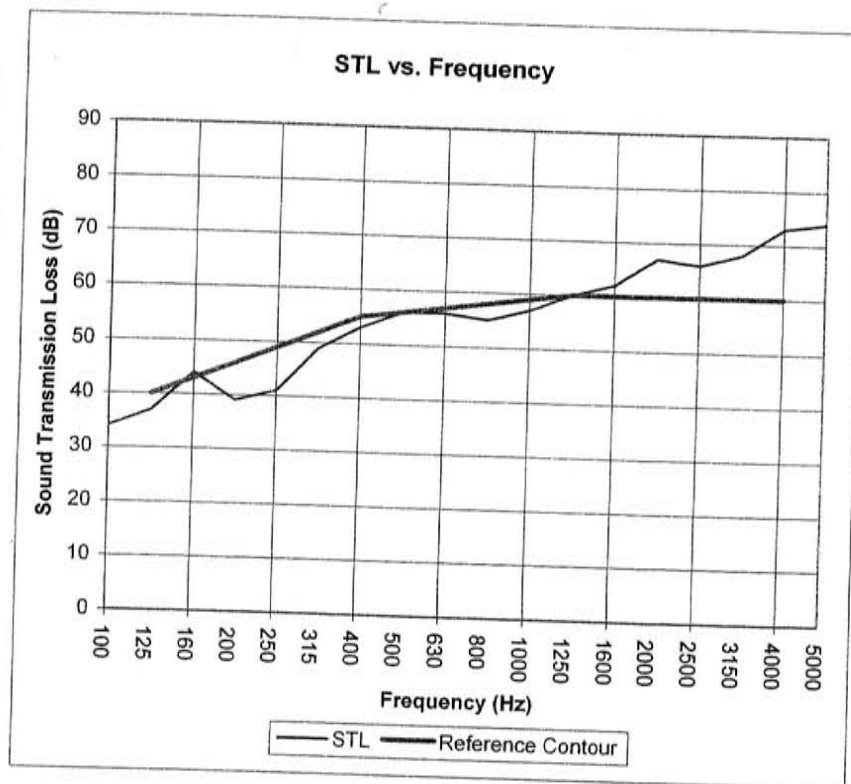
No. of test report: NGC5009042

Test Date: 6/22/2009

Size: 17.84 m²

Sound Transmission Class STC = 56 dB

Frequency [Hz]	STL [dB]	ΔSTL
100	34	2.236
125	37	1.063
160	44	1.109
200	39	0.748
250	41	1.136
315	49	1.030
400	53	0.693
500	56	0.707
630	56	0.900
800	55	0.316
1000	57	0.224
1250	60	0.300
1600	62	0.447
2000	67	0.548
2500	66	0.806
3150	68	0.889
4000	73	1.204
5000	74	1.470



* 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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