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

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

6 Inch (152mm) Concrete Slab Overlaid with Quarry Tile Flooring over a Layer of 0.500 Inch (12.7mm) Proflex RCU 500 Underlayment

Report Number: NGC 7009065

Assignment Number: G-508

Test Date: 06/23/2009

Report Date: 07/27/2009

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.
This report may not be reproduced except in full, without the written approval of the laboratory.
The laboratory's accreditation or any of it's test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.

Report Number: NGC 7009065

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: 6 inch (152mm) Concrete Slab overlaid with, according to client, unglazed clay quarry tile flooring on a layer of 0.500 inch (12.7mm) Proflex RCU-500 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/m^2 (6.6 PSF).
- 1 layer of 12.7mm (0.500 in.) thick Proflex RCU 500 underlayment. Sample weight was found to be 6.3 kg/m^2 (0.1.30 PSF). Sample thickness measured 11.6mm (0.456 in.).
- 152mm (6 in.) thick reinforced concrete slab 366.1 kg/m^2 (75.0 PSF).
- No ceiling

The overall weight of the test assembly is 404.7 kg/m^2 (82.90 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.

Normalized impact sound pressure level

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

Test Number: NGC7009065 Date: 6/23/2009
Size: 17.8 m²

Source room

Temperature [°C]: 23.0
Humidity [%]: 62

Receiving room

Volume V = 63.9 m³
Temperature [°C]: 22.0
Humidity [%]: 57

Impact Insulation Class IIC = 50 dB

Sum of unfavorable deviations: 29.0 dB
Max. unfavorable deviation: 8.0 dB at 250 Hz

Frequency [Hz]	L_n [dB]	L2 [dB]	T [s]	Corr. [dB]	u.Dev. [dB]	ΔL_n
50	60	65.5	3.39	-5.5	-.-	0.519
63	55	60.4	3.17	-5.4	-.-	0.196
80	54	60.1	3.95	-6.1	-.-	0.514
100	55	61.0	4.23	-6.0	-.-	0.549
125	63	68.0	3.51	-5.0	1	0.243
160	64	70.2	3.97	-6.2	2	0.201
200	69	74.4	3.83	-5.4	7	0.169
250	70	75.2	3.03	-5.2	8	0.122
315	66	70.1	2.91	-4.1	4	0.097
400	64	68.6	2.82	-4.6	3	0.064
500	62	66.7	2.70	-4.7	2	0.080
630	61	64.6	2.54	-3.6	2	0.057
800	57	61.0	2.50	-4.0	-.-	0.059
1000	54	57.9	2.38	-3.9	-.-	0.050
1250	51	54.5	2.11	-3.5	-.-	0.050
1600	49	51.7	2.03	-2.7	-.-	0.037
2000	45	47.9	1.92	-2.9	-.-	0.040
2500	40	42.0	1.74	-2.0	-.-	0.034
3150	35	36.5	1.55	-1.5	-.-	0.041
4000	34	35.4	1.33	-1.4	-.-	0.039
5000	32	32.6	1.19	-0.6	-.-	0.041

L_n = Normalized Sound Pressure Level, dB
L2 = Receiving Room Level, dB
T = Reverberation Time, seconds
ΔL_n = Uncertainty for 95% Confidence Level

NGC Testing Services™
Acoustical • Analytical • Fire • Structural

Acoustical Testing Laboratory

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

Normalized impact sound pressure level

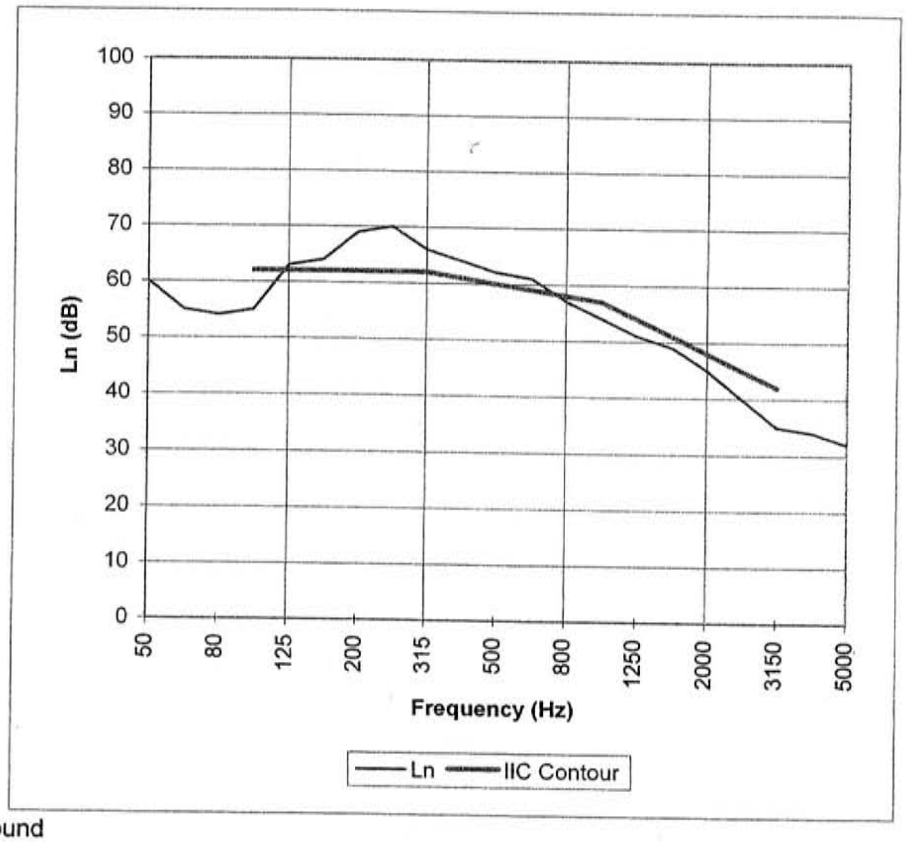
Test: ASTM E 492 - 04 / ASTM E 989 - 06

Test Number: NGC7009065

Date: 6/23/2009

Impact Insulation Class IIC = 50 dB

Frequency [Hz]	L_n [dB]
50	60
63	55
80	54
100	55
125	63
160	64
200	69
250	70
315	66
400	64
500	62
630	61
800	57
1000	54
1250	51
1600	49
2000	45
2500	40
3150	35
4000	34
5000	32



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

L_n = Normalized Sound Pressure Level, dB

1650 Military Road • Buffalo, NY 14217-1198
(716)873-9750 • Fax (716)873-9753 • www.ngctestingservices.com

Acoustical • Analytical • Fire • Structural
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

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

Sound Transmission Loss Test

ASTM E 90 – 04 / E 413 - 04
On

6 Inch (152mm) Concrete Slab Overlaid with Quarry Tile Flooring over a Layer of 0.500 Inch (12.7mm) Proflex RCU 500 Underlayment

Report Number: NGC 5009043

Assignment Number: G-508

Test Date: 06/23/2009

Report Date: 07/27/2009

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.
This report may not be reproduced except in full, without the written approval of the laboratory.
The laboratory's accreditation or any of it's test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.

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: 6 inch (152mm) Concrete Slab overlaid with, according to client, unglazed clay quarry tile flooring on a layer of 0.500 inch (12.7mm) Proflex RCU-500 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/m^2 (6.6 PSF).
- 1 layer of 12.7mm (0.500 in.) thick Proflex RCU 500 underlayment. Sample weight was found to be 6.3 kg/m^2 (0.1.30 PSF). Sample thickness measured 11.6mm (0.456 in.).
- 152mm (6 in.) thick reinforced concrete slab 366.1 kg/m^2 (75.0 PSF).
- No ceiling

The overall weight of the test assembly is 404.7 kg/m^2 (82.90 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.

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

Sound Transmission Loss Test Data

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

No. of test report: NGC5009043 Date: 6/23/2009
Size: 17.84 m²

Source room
Volume V = 53.2 m³
Temperature [°C]: 22.5
Humidity [%]: 63

Receiving room
Volume V = 63.9 m³
Temperature [°C]: 22.0
Humidity [%]: 57

Sound Transmission Class STC = 53 dB
Sum of unfavorable deviations: 30.0 dB
Max. unfavorable deviation: 8.0 dB at 250 Hz

Frequency [Hz]	STL [dB]	L1 [dB]	L2 [dB]	T [s]	Corr. [dB]	u.Dev. [dB]	ΔSTL
50	33	106.0	80.9	3.39	7.7	-.-	6.621
63	35	100.6	73.3	3.17	7.4	-.-	1.783
80	44	107.1	71.7	3.95	8.4	-.-	3.237
100	34	104.4	79.1	4.23	8.7	-.-	2.345
125	38	105.7	75.2	3.51	7.9	-.-	1.086
160	36	107.8	79.7	3.97	8.4	4	1.127
200	37	106.8	78.3	3.83	8.2	6	0.616
250	38	105.4	74.4	3.03	7.2	8	0.985
315	42	105.5	70.9	2.91	7.0	7	1.140
400	47	105.6	65.6	2.82	6.9	5	0.714
500	53	104.9	58.8	2.70	6.7	-.-	0.843
630	55	103.9	55.8	2.54	6.5	-.-	0.592
800	55	102.8	54.0	2.50	6.4	-.-	0.412
1000	57	100.8	50.3	2.38	6.2	-.-	0.469
1250	58	101.8	49.1	2.11	5.7	-.-	0.510
1600	60	102.3	48.1	2.03	5.5	-.-	0.469
2000	64	104.4	45.5	1.92	5.2	-.-	0.663
2500	66	105.7	44.9	1.74	4.8	-.-	0.707
3150	66	105.5	44.0	1.55	4.3	-.-	0.831
4000	66	104.6	42.2	1.33	3.6	-.-	1.523
5000	70	104.4	37.7	1.19	3.1	-.-	1.330

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

1650 Military Road • Buffalo, NY 14217-1198
(716)873-9750 • Fax (716)873-9753 • www.ngctestingservices.com

NGC Testing Services™
Acoustical • Analytical • Fire • Structural

Acoustical Testing Laboratory

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

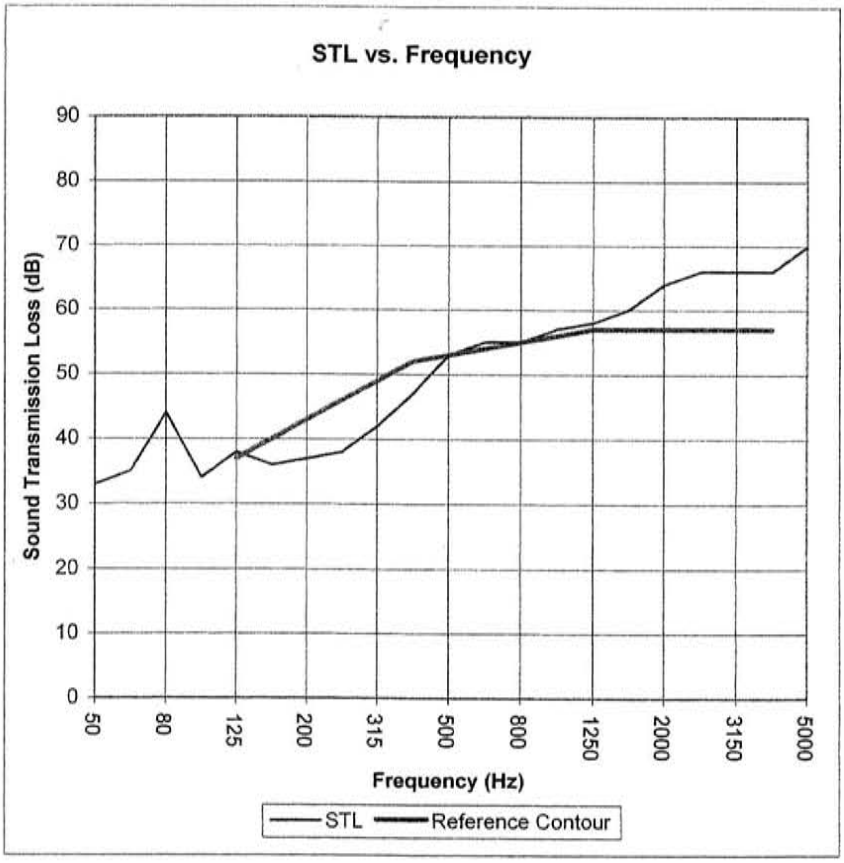
Sound Transmission Loss Test Data

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

No. of test report: NGC5009043
Test Date: 6/23/2009
Size: 17.84 m²

Sound Transmission Class STC = 53 dB

Frequency [Hz]	STL [dB]	ΔSTL
50	33	6.621
63	35	1.783
80	44	3.237
100	34	2.345
125	38	1.086
160	36	1.127
200	37	0.616
250	38	0.985
315	42	1.140
400	47	0.714
500	53	0.843
630	55	0.592
800	55	0.412
1000	57	0.469
1250	58	0.510
1600	60	0.469
2000	64	0.663
2500	66	0.707
3150	66	0.831
4000	66	1.523
5000	70	1.330



* 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

1650 Military Road • Buffalo, NY 14217-1198
(716)873-9750 • Fax (716)873-9753 • www.ngctestingservices.com