



Acoustical Testing Laboratory



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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


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Assignment Number: G-508


Test Date: 06/23/2009

Report Date: 07/27/2009

Submitted by:


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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 its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.

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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/m² (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/m² (0.1.30 PSF). Sample thickness measured 11.6mm (0.456 in.).
- 152mm (6 in.) thick reinforced concrete slab 366.1 kg/m² (75.0 PSF).
- No ceiling

The overall weight of the test assembly is 404.7 kg/m² (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.

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| Normalized impact sound pressure level | | | | | | |
|--|----------------|----------------|--------------------------------|-----------------|--------|-----------------|
| Test: ASTM E 492 - 04 / ASTM E 989 - 06 | | | | | | |
| Test Number: NGC7009065 | | | | Date: 6/23/2009 | | Page 3 of 4 |
| Size: 17.8 m ² | | | | | | |
| Source room | | | Receiving room | | | |
| Temperature [°C]: 23.0 | | | Volume V = 63.9 m ³ | | | |
| Humidity [%]: 62 | | | 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 | L _n | L ₂ | T | Corr. | u.Dev. | ΔL _n |
| [Hz] | [dB] | [dB] | [s] | [dB] | [dB] | |
| 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 L ₂ = Receiving Room Level, dB T = Reverberation Time, seconds ΔL _n = Uncertainty for 95% Confidence Level | | | | | | |

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Normalized impact sound pressure level

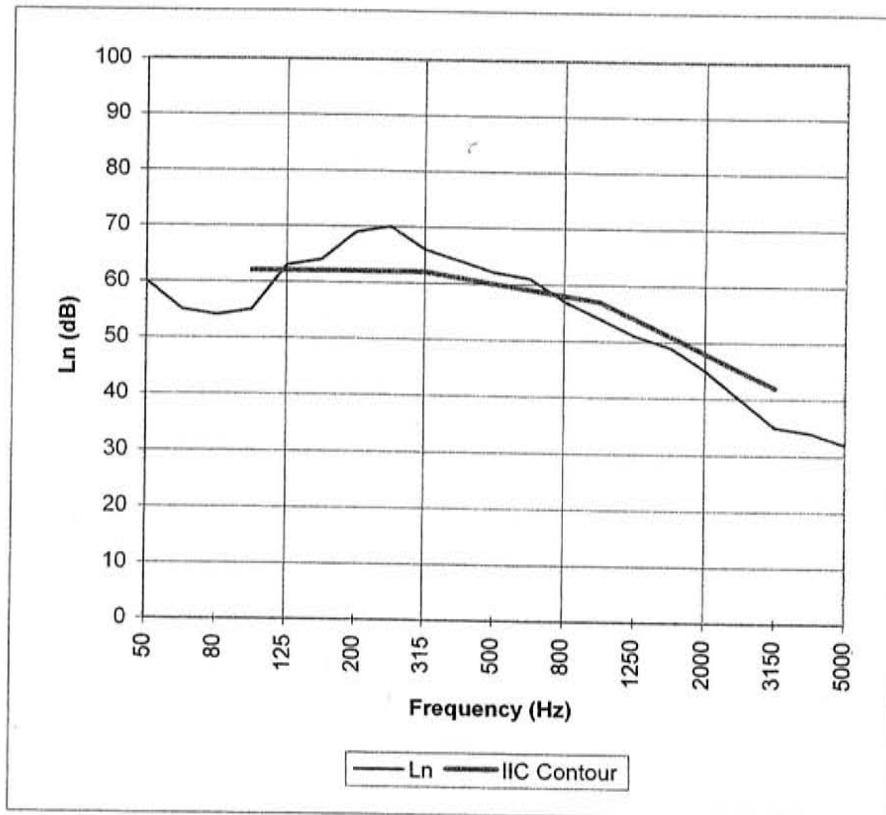
Test: ASTM E 492 - 04 / ASTM E 989 - 06

Test Number: 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

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