



Acoustical Testing Laboratory



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

TEST REPORT

for

MP Global Products, LLC
2500 Old Hadar Road
Norfolk, NE 68701
Duane Reimer/ 888-379-9695

Impact Sound Transmission Test
ASTM E 492 – 09 / ASTM E 989 – 06

On

**6 Inch Concrete Slab Floor - Ceiling Assembly
Overlaid with;
Laminate Wood Flooring Over QuietWalk Underlayment**

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Report Number: NGC 7013154

Assignment Number: G-956

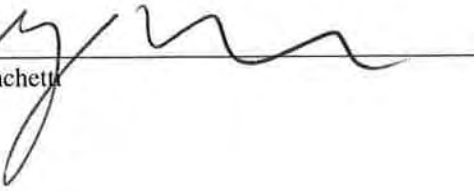
Test Date: 9/17/2013

Report Approval Date: 10/24/2013

Submitted by: _____


Andrew E. Heuer
Senior Test Engineer

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

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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 492-09 / E 989-06.

The uncertainty limits of each tapping machine location met the precision requirements of section A1.4 of ASTM E 492-09.

Specimen Description: 6 inch concrete slab floor-ceiling assembly, overlaid with laminate wood flooring over, according to client, QuietWalk Underlayment.

The test specimen was a floor-ceiling assembly and observed to consist of the following:

- 1 layer of, laminate wood flooring, plank size: 203.2 mm x 1206.5 mm x 9.98 mm (8 in. x 47-1/2 in. x 0.393 in.). Sample weight was 9.32 kg/m² (1.91 PSF).
- 1 layer of 2.18 mm (0.086 in.) measured thickness, according to client, QuietWalk Underlayment. The underlayment seams were butted and taped together and vapor barrier orientated down. Sample weight was 0.68 kg/m² (0.14 PSF).
- 152.4 mm (6 in.) thick reinforced concrete slab, weighing 366.2 kg/m² (75.0 PSF).

The overall weight of the test assembly is 376.15 kg/m² (77.05 PSF).

The perimeter of the concrete slab was sealed with a rubber gasket and a sand filled trough. The test assembly 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 3 and 4.

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| Normalized impact sound pressure level | | | | | | |
|---|----------------|------|--------------------------------|-------|--------|-----------------|
| Test: ASTM E 492 - 09 / ASTM E 989 - 06 | | | | | | |
| Test Report: NGC7013154 | | | | | | Page 3 of 4 |
| Specimen Size [m ²]: 17.8 | | | | | | Date: 9/17/2013 |
| Source room | | | Receiving room | | | |
| Rm Temp [°C]: 18.5 | | | Volume [m ³]: 64.4 | | | |
| Humidity [%]: 52 | | | Rm Temp [°C]: 20 | | | |
| | | | Humidity [%]: 48 | | | |
| Impact Insulation Class IIC [dB]: 50 | | | | | | |
| Sum of Unfavorable Deviations [dB]: 30 | | | | | | |
| Max. Unfavorable Deviation [dB]: 7 at 200 Hz | | | | | | |
| Frequency | L _n | L2 | d | Corr. | u.Dev. | ΔL _n |
| [Hz] | [dB] | [dB] | [dB/s] | [dB] | [dB] | |
| 50 | 56 | 64.6 | 7.86 | -8.6 | | 1.85 |
| 63 | 53 | 58.1 | 16.63 | -5.1 | | 3.17 |
| 80 | 57 | 63.6 | 11.84 | -6.6 | | 3.04 |
| 100 | 63 | 67.5 | 19.35 | -4.5 | 1 | 2.71 |
| 125 | 64 | 69.9 | 3.93 | -5.9 | 2 | 2.87 |
| 160 | 65 | 71.2 | 4.41 | -6.2 | 3 | 1.96 |
| 200 | 69 | 75.1 | 4.01 | -6.1 | 7 | 0.97 |
| 250 | 69 | 74.8 | 3.53 | -5.8 | 7 | 0.45 |
| 315 | 68 | 73.3 | 3.35 | -5.3 | 6 | 0.65 |
| 400 | 65 | 69.4 | 3.19 | -4.4 | 4 | 0.50 |
| 500 | 55 | 59.6 | 3.06 | -4.6 | | 0.31 |
| 630 | 52 | 56.3 | 2.86 | -4.3 | | 0.35 |
| 800 | 47 | 51.5 | 2.78 | -4.5 | | 0.23 |
| 1000 | 43 | 46.7 | 2.58 | -3.7 | | 0.24 |
| 1250 | 38 | 41.4 | 2.29 | -3.4 | | 0.20 |
| 1600 | 33 | 36.5 | 2.18 | -3.5 | | 0.14 |
| 2000 | 28 | 31.1 | 1.99 | -3.1 | | 0.16 |
| 2500 | 26 | 28.5 | 1.78 | -2.5 | | 0.13 |
| 3150 | 24 | 25.6 | 1.59 | -1.6 | | 0.28 |
| 4000 | 21 | 22.2 | 1.37 | -1.2 | | 0.44 |
| 5000 | 16 | 17.4 | 1.18 | -1.4 | | 0.54 |

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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Normalized impact sound pressure level

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

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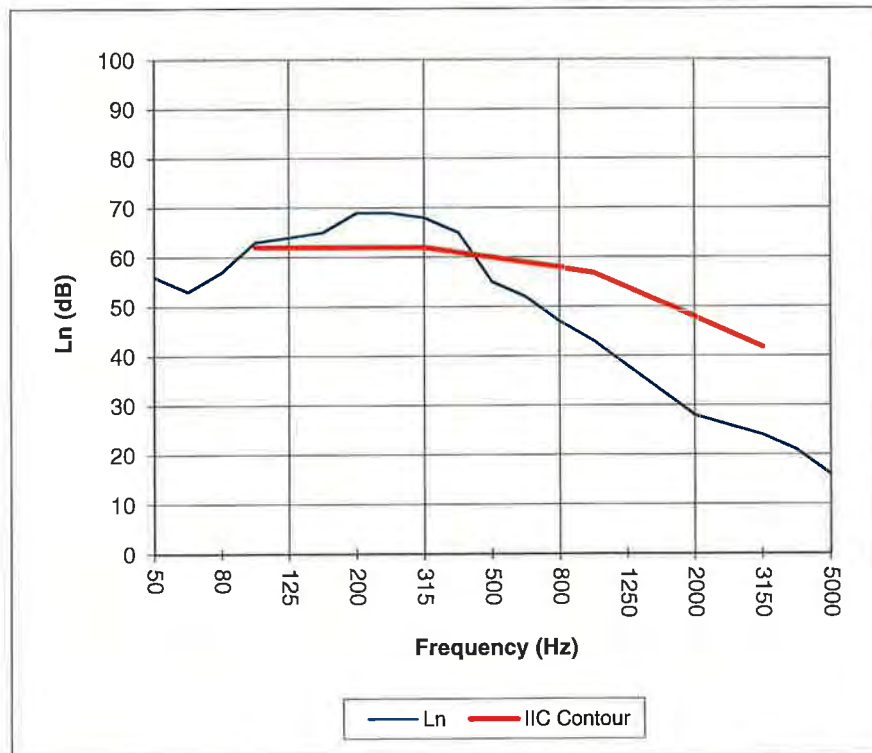
Test Report: NGC7013154

Test Date: 9/17/2013

Specimen Size [m²]: 17.8

Impact Insulation Class IIC [dB]: 50

| Frequency [Hz] | L _n [dB] |
|----------------|---------------------|
| 50 | 56 |
| 63 | 53 |
| 80 | 57 |
| 100 | 63 |
| 125 | 64 |
| 160 | 65 |
| 200 | 69 |
| 250 | 69 |
| 315 | 68 |
| 400 | 65 |
| 500 | 55 |
| 630 | 52 |
| 800 | 47 |
| 1000 | 43 |
| 1250 | 38 |
| 1600 | 33 |
| 2000 | 28 |
| 2500 | 26 |
| 3150 | 24 |
| 4000 | 21 |
| 5000 | 16 |



* 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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