

## TEST REPORT

for

**Sound Seal**  
50 H.P. Almgren Dr.  
Agawam, MA 01027  
Michael Keeney / 413-789-1770

### Impact Sound Transmission Test

ASTM E 492 – 09 (2016) / ASTM E 989 – 06 (2012)

On

**8 Inch Concrete Slab Floor – Ceiling Assembly  
Overlaid with Luxury Vinyl Plank Flooring  
on ProBase Vinyl 3mm Underlayment**

Report Number: NGC 7020099

Assignment Number: G-1705

Test Date: 07/09/2020

Report Date: 07/24/2020

Submitted by:

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

**Revision Summary:**

Date	SUMMARY
Approval Date: 07/24/2020	Original issue date: 07/24/2020 Original NGCTS report: NGC 7020099

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Report Number: NGC 7020099

Page 3 of 5

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 492-0 (2016) / E 989-06 (2012).

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 concrete slab floor- ceiling assembly, overlaid with according to the client, Luxury Vinyl Plank Flooring over ProBase Vinyl 3mm Underlayment.

The test specimen was a floor-ceiling assembly and was observed to consist of the following:  
All weights and dimension are averaged:

- 1 layer of, according to the client, Luxury Vinyl Plank Flooring. The flooring was glued to the ProBase Vinyl 3mm Underlayment using Impacta T-440 acrylic adhesive. The adhesive was applied using a 1.59 mm x 1.59 mm x 1.59 mm (1/16 in. x 1/16 in. x 1/16 in.) Square-Notch trowel. Measured thickness: 3.30 mm (0.08 in.). Measured weight: 4.10 kg/m<sup>2</sup> (0.84 PSF)
- 1 layer of, according to the client, ProBase Vinyl 3mm Underlayment. The underlayment was glued to the concrete slab using Impacta T-440 acrylic adhesive. The adhesive was applied using a 1.59 mm x 1.59 mm x 1.59 mm (1/16 in. x 1/16 in. x 1/16 in.) Square-Notch trowel. Measured thickness: 1.27 mm (0.13 in.). Measured weight: 2.25 kg/m<sup>2</sup> (0.46 PSF)
- 203.2 mm (8 in.) thick reinforced concrete slab, weighing: 488.2 kg/m<sup>2</sup> (100.00 PSF)

The overall weight of the test assembly is: 494.55 kg/m<sup>2</sup> (101.30 PSF)

The perimeter of the test frame was sealed with a rubber gasket and a sand filled trough.

The test frame 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. Adhesive cured a minimum of 24 hours

Test Results: The results of the tests are given on pages 4 and 5 of the report.

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Normalized impact sound pressure level						
Test: ASTM E 492 - 09 (2016) / ASTM E 989 - 18						
Test Report: NGC7020099					Date: 7/9/2020	
Specimen Size [m <sup>2</sup> ]: 17.8					Page 4 of 5	
<b>Source room</b>			<b>Receiving room</b>			
Rm Temp [°C]: 25			Volume [m <sup>3</sup> ]: 128			
Humidity [%]: 50			Rm Temp [°C]: 25			
			Humidity [%]: 50			
<b>Impact Insulation Class IIC [dB]: 53</b>						
Sum of Unfavorable Deviations [dB]: 23						
Max. Unfavorable Deviation [dB]: 8			at 160 Hz			
Frequency [Hz]	L <sub>n</sub> [dB]	L <sub>2</sub> [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔL <sub>n</sub>
80	55	56.1	23.78	-1.1		2.12
100	57	58.7	21.90	-1.7		3.07
125	63	64.7	20.40	-1.7	4	1.08
160	67	69.9	15.61	-2.9	8	1.11
200	63	66.1	15.23	-3.1	4	1.39
250	61	64.1	15.47	-3.1	2	0.65
315	64	67.0	16.10	-3.0	5	1.01
400	58	60.6	17.07	-2.6		0.60
500	56	57.5	18.83	-1.5		0.58
630	52	53.6	20.25	-1.6		0.50
800	48	49.5	20.76	-1.5		0.66
1000	44	45.8	20.48	-1.8		0.73
1250	34	35.4	20.88	-1.4		0.57
1600	29	29.9	21.66	-0.9		0.43
2000	26	26.9	24.01	-0.9		0.52
2500	18	19.3	25.98	-1.3		0.63
3150	18	19.1	27.96	-1.1		0.75
4000	12	13.8	30.80	-1.8		0.55
5000	10	11.3	34.05	-1.3		0.39

L<sub>n</sub> = Normalized Sound Pressure Level, dB  
 L<sub>2</sub> = Receiving Room Level, dB  
 d = Decay Rate, dB/second  
 ΔL<sub>n</sub> = Uncertainty for 95% Confidence Level

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**Normalized impact sound pressure level**

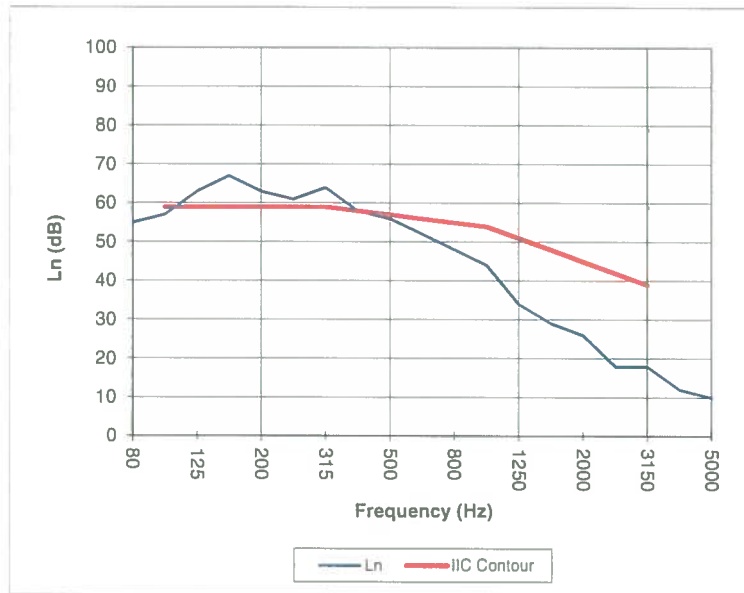
Test: ASTM E 492 - 09 (2016) / ASTM E 989 - 18

Page 5 of 5

Test Report: NGC7020099  
 Test Date: 7/9/2020  
 Specimen Size [m<sup>2</sup>]: 17.8

**Impact Insulation Class IIC [dB]: 53**

Frequency [Hz]	L <sub>n</sub> [dB]
80	55
100	57
125	63
160	67
200	63
250	61
315	64
400	58
500	56
630	52
800	48
1000	44
1250	34
1600	29
2000	26
2500	18
3150	18
4000	12
5000	10



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

L<sub>n</sub> = Normalized Sound Pressure Level, dB

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