

## TEST REPORT

for

### Sound Seal

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### Impact Sound Transmission Test

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

On

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

Report Number: NGC 7020097

Assignment Number: G-1705

Test Date: 07/09/2020

Report Date: 07/24/2020

Submitted by:

  
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Test Technician

Reviewed by:

  
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Director

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**Revision Summary:**

<b>Date</b>	<b>SUMMARY</b>
Approval Date: 07/24/2020	Original issue date: 07/24/2020 Original NGCTS report: NGC 7020097

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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 492-0 (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: 6 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)
- 152.4 mm (6 in.) thick reinforced concrete slab, weighing: 366.2 kg/m<sup>2</sup> (75.00 PSF)

The overall weight of the test assembly is: 372.50 kg/m<sup>2</sup> (76.30 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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<b>Normalized impact sound pressure level</b>						
Test: ASTM E 492 - 09 (2016) / ASTM E 989 - 18						
Test Report: NGC7020097					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]: 50</b>						
Sum of Unfavorable Deviations [dB]: 30						
Max. Unfavorable Deviation [dB]: 7			at 125 Hz			
Frequency	L <sub>n</sub>	L2	d	Corr.	u.Dev.	ΔL <sub>n</sub>
[Hz]	[dB]	[dB]	[dB/s]	[dB]	[dB]	
80	59	59.2	26.14	-0.2		1.93
100	58	58.7	24.99	-0.7		1.94
125	69	71.1	18.68	-2.1	7	1.32
160	67	69.5	15.69	-2.5	5	1.03
200	68	71.1	14.94	-3.1	6	0.62
250	68	70.7	16.35	-2.7	6	0.87
315	64	66.6	16.36	-2.6	2	0.58
400	65	67.0	17.72	-2.0	4	0.59
500	59	61.4	17.69	-2.4		0.39
630	56	58.0	18.38	-2.0		0.45
800	50	51.4	19.17	-1.4		0.68
1000	42	44.0	18.60	-2.0		0.70
1250	35	36.9	19.84	-1.9		0.60
1600	30	31.1	21.27	-1.1		0.68
2000	26	27.2	23.86	-1.2		0.75
2500	20	21.4	25.92	-1.4		0.95
3150	20	20.9	28.05	-0.9		0.99
4000	17	17.7	31.27	-0.7		1.01
5000	13	13.9	35.46	-0.9		0.94
L <sub>n</sub> = Normalized Sound Pressure Level, dB L2 = 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

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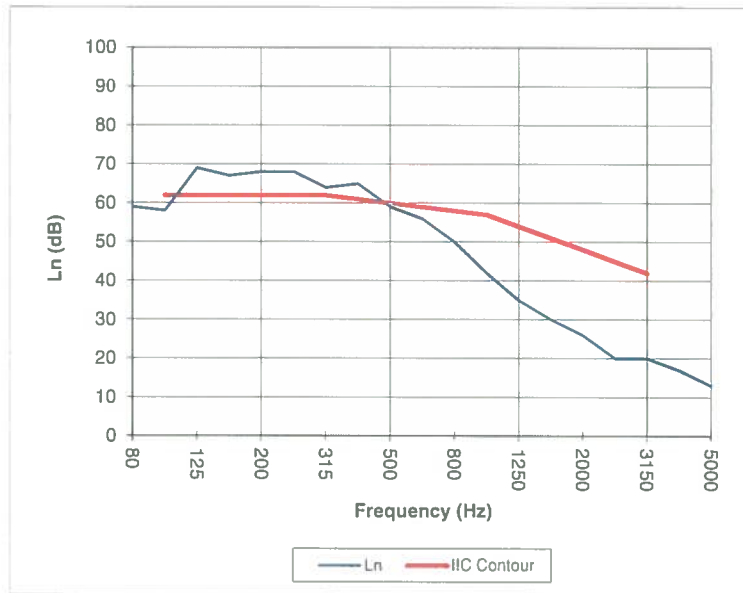
Test Report: NGC7020097

Test Date: 7/9/2020

Specimen Size [m<sup>2</sup>]: 17.8

**Impact Insulation Class IIC [dB]: 50**

Frequency [Hz]	L <sub>n</sub> [dB]
80	59
100	58
125	69
160	67
200	68
250	68
315	64
400	65
500	59
630	56
800	50
1000	42
1250	35
1600	30
2000	26
2500	20
3150	20
4000	17
5000	13



\* 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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