

## TEST REPORT

for

**Sound Seal**  
50 H.P. Almgren Drive  
Agawam, MA 01001  
Michael Keeney / 413-789-1770

### Impact Sound Transmission Test

ASTM E 492 – 09 (2016) / ASTM E 989 – 18

On

**8 Inch (203 mm) Concrete Slab Floor- Ceiling Assembly  
Overlaid with 3/8" Engineered Wood Flooring  
over CeraZorb 5mm 1.9# Underlayment**

Report Number: NGC 7019161

Assignment Number: G-1649

Test Date: 12/09/2019

Report Date: 12/19/2019

Submitted by:

  
Anthony J. Rivers  
Test Technician

Reviewed by:

  
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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:**

<b>Date</b>	<b>SUMMARY</b>
Approval Date: 12/19/2019	Original issue date: 12/19/2019 Original NGCTS report: NGC 7019161

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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 (2016) / E 989-18.

The uncertainty limits of each tapping machine location met the precision requirements of section A1.4 of ASTM E 492-09 (2016).

Specimen Description: 8 inch concrete slab floor ceiling assembly overlaid with, according to client, 3/8" Engineered Wood Flooring over CeraZorb 5mm 1.9# underlayment.

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

- 1 layer of, 3/8" Engineered Wood flooring. The flooring was floating on the CeraZorb 5mm 1.9# underlayment. Measured thickness: 9.65 mm (0.38 in.). Measured weight: 5.78 kg/m<sup>2</sup> (1.18 PSF)
- 1 layer of, CeraZorb 5mm 1.9# underlayment. The underlayment was floating on the concrete slab. Measured thickness: 4.83 mm (0.19 in.). Measured weight: 0.10 kg/m<sup>2</sup> (0.02 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: 494.06 kg/m<sup>2</sup> (101.20 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.

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: NGC7019161					Date: 12/9/2019	
Specimen Size [m²]: 17.8					Page 4 of 5	
<b>Source room</b>			<b>Receiving room</b>			
Rm Temp [°C]: 23			Volume [m³]: 128			
Humidity [%]: 56			Rm Temp [°C]: 23			
			Humidity [%]: 53			
<b>Impact Insulation Class IIC [dB]: 55</b>						
Sum of Unfavorable Deviations [dB]: 32						
Max. Unfavorable Deviation [dB]: 7			at 125 Hz			
Frequency [Hz]	L <sub>n</sub> [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔL <sub>n</sub>
80	55	55.9	25.01	-0.9		1.56
100	58	58.7	26.82	-0.7	1	1.57
125	64	64.9	21.31	-0.9	7	1.42
160	64	66.7	15.21	-2.7	7	0.74
200	62	65.5	13.88	-3.5	5	0.85
250	60	62.8	14.80	-2.8	3	0.88
315	64	66.6	15.84	-2.6	7	0.54
400	58	60.2	16.80	-2.2	2	0.62
500	54	56.0	18.46	-2.0		0.56
630	49	50.6	19.00	-1.6		0.52
800	46	48.0	19.84	-2.0		0.59
1000	44	46.1	19.64	-2.1		0.65
1250	42	43.4	20.60	-1.4		0.39
1600	36	37.1	21.19	-1.1		0.41
2000	29	29.4	23.69	-0.4		0.54
2500	26	26.3	25.55	-0.3		0.66
3150	23	23.7	27.88	-0.7		0.71
4000	18	18.4	31.96	-0.4		0.55
5000	14	15.0	36.05	-1.0		0.69
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**

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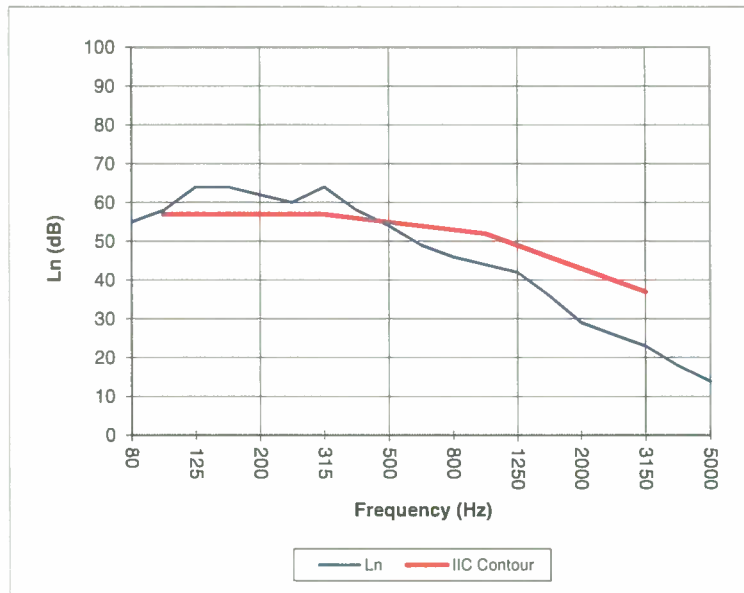
Test Report: NGC7019161

Test Date: 12/9/2019

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

**Impact Insulation Class IIC [dB]: 55**

Frequency [Hz]	L <sub>n</sub> [dB]
80	55
100	58
125	64
160	64
200	62
250	60
315	64
400	58
500	54
630	49
800	46
1000	44
1250	42
1600	36
2000	29
2500	26
3150	23
4000	18
5000	14



\* 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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