

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

**6 Inch (152 mm) Concrete Slab Floor- Ceiling Assembly
Overlaid with 3/8" Engineered Wood Flooring
over CeraZorb 5mm 1.9# Underlayment**

Report Number: NGC 7019155

Assignment Number: G-1649

Test Date: 12/04/2019

Report Date: 12/19/2019

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: 12/19/2019	Original issue date: 12/19/2019 Original NGCTS report: NGC 7019155

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Report Number: NGC 7019153

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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: 6 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/m² (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/m² (0.02 PSF)
- 152.4 mm (6 in.) thick reinforced concrete slab, weighing: 366.2 kg/m² (75.00 PSF)

The overall weight of the test assembly is: 372.01 kg/m² (76.20 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: NGC7019155					Date: 12/4/2019	
Specimen Size [m ²]: 17.8					Page 4 of 5	
Source room			Receiving room			
Rm Temp [°C]: 23			Volume [m ³]: 128			
Humidity [%]: 56			Rm Temp [°C]: 22			
			Humidity [%]: 56			
Impact Insulation Class IIC [dB]: 50						
Sum of Unfavorable Deviations [dB]: 28						
Max. Unfavorable Deviation [dB]: 8			at 125 Hz			
Frequency	L _n	L2	d	Corr.	u.Dev.	ΔL _n
[Hz]	[dB]	[dB]	[dB/s]	[dB]	[dB]	
80	56	56.7	22.64	-0.7		1.52
100	59	60.3	23.15	-1.3		1.24
125	70	71.6	19.15	-1.6	8	2.27
160	66	69.3	15.14	-3.3	4	1.64
200	67	69.9	14.89	-2.9	5	0.58
250	69	71.7	15.68	-2.7	7	1.45
315	64	67.1	15.25	-3.1	2	0.58
400	63	65.7	16.78	-2.7	2	0.56
500	58	60.1	17.90	-2.1		0.45
630	52	54.6	17.73	-2.6		0.38
800	46	47.9	18.74	-1.9		0.56
1000	41	43.3	18.54	-2.3		0.70
1250	38	40.1	19.69	-2.1		0.53
1600	35	36.5	21.26	-1.5		0.71
2000	30	30.7	23.14	-0.7		0.64
2500	28	28.7	25.72	-0.7		0.78
3150	24	24.6	27.94	-0.6		0.71
4000	22	21.6	33.19	0.4		0.74
5000	17	16.9	37.67	0.1		0.69

L_n = Normalized Sound Pressure Level, dB
 L2 = Receiving Room Level, dB
 d = Decay Rate, dB/second
 ΔL_n = 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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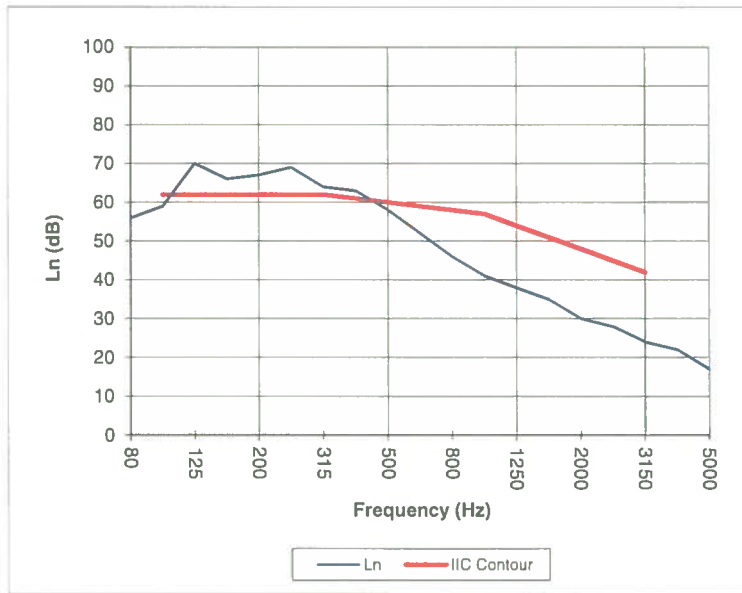
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Test Date: 12/4/2019

Specimen Size [m²]: 17.8

Impact Insulation Class IIC [dB]: 50

Frequency [Hz]	L _n [dB]
80	56
100	59
125	70
160	66
200	67
250	69
315	64
400	63
500	58
630	52
800	46
1000	41
1250	38
1600	35
2000	30
2500	28
3150	24
4000	22
5000	17



* 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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