

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 10mm 1.9# Underlayment**

Report Number: NGC 7019163

Assignment Number: G-1649

Test Date: 12/09/2019

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 7019163

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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 10mm 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 10mm 1.9# underlayment. Measured thickness: 9.65 mm (0.38 in.). Measured weight: 5.78 kg/m² (1.18 PSF)
- 1 layer of, CeraZorb 10mm 1.9# underlayment. The underlayment was floating on the concrete slab. Measured thickness: 10.41 mm (0.41 in.). Measured weight: 0.20 kg/m² (0.04 PSF)
- 203.2 mm (8 in.) thick reinforced concrete slab, weighing: 488.2 kg/m² (100.00 PSF)

The overall weight of the test assembly is: 494.16 kg/m² (101.22 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: NGC7019163				Date: 12/11/2019		
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]: 21			
			Humidity [%]: 53			
Impact Insulation Class IIC [dB]: 56						
Sum of Unfavorable Deviations [dB]: 26						
Max. Unfavorable Deviation [dB]: 8			at 160 Hz			
Frequency	L _n	L ₂	d	Corr.	u.Dev.	ΔL _n
[Hz]	[dB]	[dB]	[dB/s]	[dB]	[dB]	
80	55	55.3	28.28	-0.3		1.51
100	56	57.0	24.42	-1.0		1.72
125	62	63.7	20.62	-1.7	6	1.35
160	64	66.2	16.05	-2.2	8	1.15
200	61	64.4	14.23	-3.4	5	1.02
250	58	61.0	15.45	-3.0	2	0.68
315	61	64.2	15.44	-3.2	5	0.72
400	54	56.6	17.49	-2.6		0.73
500	49	51.2	18.77	-2.2		0.61
630	44	46.2	19.24	-2.2		0.59
800	41	42.9	20.09	-1.9		0.71
1000	41	43.0	19.78	-2.0		0.72
1250	36	37.5	20.44	-1.5		0.37
1600	30	31.6	21.28	-1.6		0.45
2000	26	26.7	23.61	-0.7		0.39
2500	23	23.9	25.65	-0.9		0.57
3150	21	21.7	28.00	-0.7		0.63
4000	19	19.0	32.16	0.0		0.65
5000	14	14.9	36.33	-0.9		0.76
L _n = Normalized Sound Pressure Level, dB L ₂ = 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

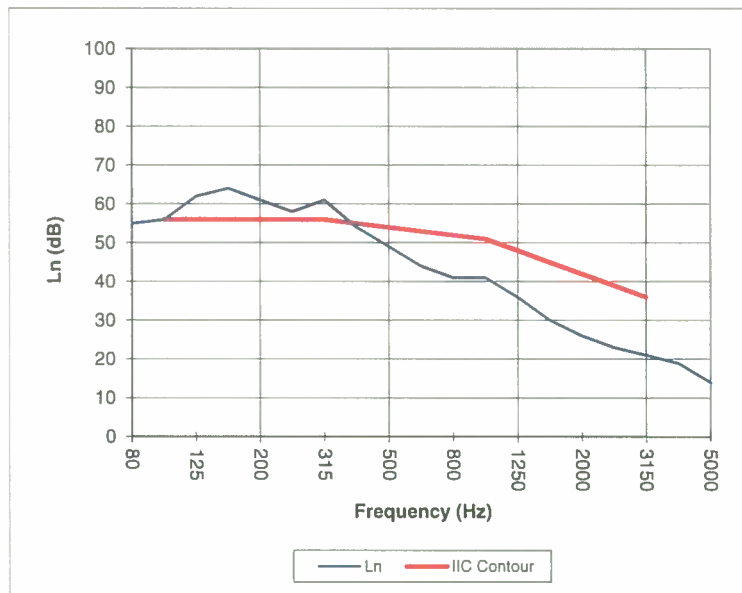
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 Test Date: 12/11/2019
 Specimen Size [m²]: 17.8

Impact Insulation Class IIC [dB]: 56

Frequency [Hz]	L _n [dB]
80	55
100	56
125	62
160	64
200	61
250	58
315	61
400	54
500	49
630	44
800	41
1000	41
1250	36
1600	30
2000	26
2500	23
3150	21
4000	19
5000	14



* 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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