NGC Testing Services™

Acoustical Testing Laboratory

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TEST REPORT

For

Amorim Cork Composites
26112 110th Street
Trevor, Wisconsin 53179
Larry Lyons / 262-862-2311

Impact Sound Transmission Test

ASTM E 492 – 09 / ASTM E 989 – 06
On

8 Inch (203mm) Concrete Slab Overlaid with Vinyl Plank Flooring over 2.5mm AcoustiCORK® CorkPLUS 250 Underlayment

Report Number: NGC 7011072

Assignment Number: G-664

Test Date: 06/10/2011

Report Date: 08/09/2011

Submitted by: _____
Andrew E. Heuer
Test and Quality Engineer

Reviewed by: _____
Robert J. Menchetti
Director

Report Number: NGC 7011072

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 / E 989-06.
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 (203.2mm) concrete slab floor-ceiling assembly overlaid with, according to client, Vinyl Plank Flooring on 2.5mm AcoustiCORK® CorkPLUS 250 Underlayment.

The test specimen was a floor-ceiling assembly consisting of the following:

- 76.2mm x 914.4mm x 3.3mm (3 in. x 36 in. x 0.129 in.) Roppe Vinyl Plank flooring /Greenwich Maple, adhered with ROP 635 Moisture Cure Polyurethane Adhesive using 1/16 in. (1.6mm) square notch trowel. Sample weight was 4.15 kg/m^2 (0.85 PSF).
- 1 layer of according to client: 2.5mm AcoustiCORK® CorkPLUS 250 Cork Underlayment.

  Adhered with ROP 635 Moisture Cure Polyurethane Adhesive using 1/8 in. (3.2mm) V notch trowel.
- 8 inch (203.2mm) thick reinforced concrete slab 488.2 kg/m^2 (100 PSF).

The overall weight of the test assembly is 493.6 kg/m^2 (101.1 PSF).

The perimeter of the concrete slab was sealed with rubber gasketing and a sand filled trough. The test assembly is structurally isolated from the receiving room.

Specimen size: 3657.6mm x 4876.8mm (12 ft x 16 ft.)

Conditioning: Concrete slab cured for a minimum of 28 days.
Adhesive cured for a minimum of 24 hours.

Test Results: The results of the tests are given on pages 3 and 4.

Normalized impact sound pressure level

Test: ASTM E 492 - 09 / ASTM E 989 - 06

Test Report: NGC7011072 Date: 6/10/2011

Specimen Size [m²]: 17.8

Source room

Rm Temp [°C]: 24
Humidity [%]: 54

Receiving room

Volume [m³]: 63
Rm Temp [°C]: 22.5
Humidity [%]: 52

Impact Insulation Class IIC [dB]: 55

Sum of Unfavorable Deviations [dB]: 32

Max. Unfavorable Deviation [dB]: 8 at 160 Hz

Frequency [Hz]	L_n [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔL_n
100	60	66.0	14.1	-6.0	3	2.14
125	58	63.0	19.0	-5.0	1	2.51
160	65	70.6	15.8	-5.6	8	2.58
200	62	68.4	14.9	-6.4	5	0.81
250	61	66.4	19.1	-5.4	4	0.92
315	63	67.8	18.4	-4.8	6	0.70
400	59	63.7	19.5	-4.7	3	0.31
500	57	61.5	20.8	-4.5	2	0.35
630	53	57.0	22.8	-4.0		0.36
800	49	53.4	23.1	-4.4		0.44
1000	42	46.2	25.0	-4.2		0.27
1250	35	38.1	28.0	-3.1		0.28
1600	30	33.4	30.0	-3.4		0.33
2000	28	30.7	33.6	-2.7		0.23
2500	22	25.0	36.5	-3.0		0.20
3150	21	23.4	40.6	-2.4		0.26
4000	22	22.6	46.8	-0.6		0.23
5000	17	18.6	53.9	-1.6		0.28

L_n = Normalized Sound Pressure Level, dB
L2 = Receiving Room Level, dB
d = Decay Time, dB/second
ΔL_n = Uncertainty for 95% Confidence Level

Normalized impact sound pressure level

Test: ASTM E 492 - 09 / ASTM E 989 - 06

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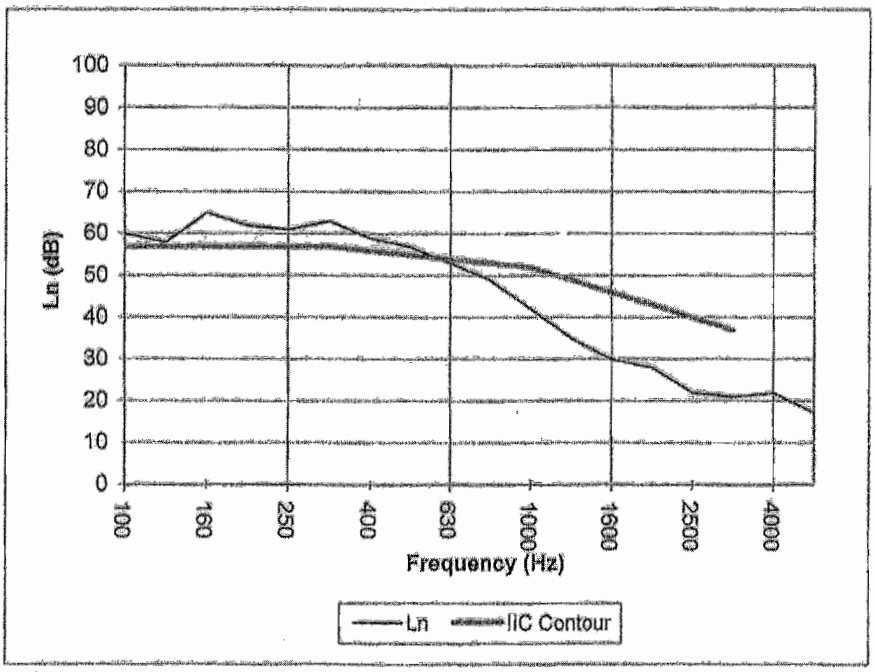
Specimen Size [m²]: 17.8

Impact Insulation Class IIC [dB]: 55

Frequency [Hz]	L_n [dB]
100	60
125	58
160	65
200	62
250	61
315	63
400	59
500	57
630	53
800	49
1000	42
1250	35
1600	30
2000	28
2500	22
3150	21
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