



Acoustical Testing Laboratory



Accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code 200291

TEST REPORT

For

Amorim Cork Composites
26112 110th Street P.O. Box 25
Trevor, Wisconsin 53179
Larry Lyons / 262-862-2311

Sound Transmission Loss Test

ASTM E 90 - 04 / E 413 - 04

On

**6 Inch (152mm) Concrete Slab Overlaid with
Glued Down Engineered Wood Flooring over
Glue Down 5mm Cork / Recycled
Rubber Blended Underlayment**

Page 1 of 4

Report Number: NGC 5008072

Assignment Number: G-441

Test Date: 09/11/2008

Report Date: 10/03/2008

Submitted by:


Steven M. Armenia
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. This report may not be reproduced except in full, without the written approval of the laboratory. The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.



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Page 2 of 4

Report Number: NGC 5008072

Test Method: This test method conforms explicitly with the American Society for Testing and Materials Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements - Designation: E 90 - 04 / E 413 - 04.

Specimen Description: 6 inch (152mm) Concrete Slab Overlaid with; Glued down 10mm (0.393 in.) Engineered Hardwood Flooring over, glued down 5mm cork / recycled rubber underlayment.

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

- 1 layer of 10mm x 82.5mm x random length (3/8 in. x 3-1/4 in. x random length) Engineered Wood Flooring 5.76 kg/m² (1.18 PSF). Flooring was adhered to underlayment with Mapei Ultrabond® 980 Polyurethane Adhesive using 1/8 in. V-notched trowel, 0.74 kg/m² (0.15 PSF). Product number RO03R525B – Red Oak.
- 1 layer of 5.2mm (0.205 in.) Cork / Recycled Rubber blended underlayment. Sample weight was found to be 3.6 kg/m² (0.74 PSF). Underlayment was glued to the poly sheeting. Top joints were taped.
- Mapei Ultrabond® 980 Polyurethane Adhesive was used to adhere underlayment to poly sheeting, 1.86 kg/m² (0.38 PSF). A 6.3mm x 6.3mm x 3.2mm (1/4 in. x 1/4 in. x 1/8 in.) square-notch trowel was used.
- 1 layer 4 mil poly sheeting attached to concrete with double sided tape at seams and Perimeter.
- 152mm (6 in.) thick reinforced concrete slab 366.1 kg/m² (75.0 PSF).

The overall weight of the test assembly is 378.1 kg/m² (77.45 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: 3658mm x 4877mm (12 ft x 16 ft.)

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

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

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Sound Transmission Loss Test Data							
Test: ASTM E 90 - 04 / ASTM E 413 - 04							
No. of test report: NGC5008072						Date: 9/11/2008	
Size: 17.84 m ²							
Source room				Receiving room			
Volume V = 53.2 m ³				Volume V = 63.9 m ³			
Temperature [°C]: 21.4				Temperature [°C]: 22.0			
Humidity [%]: 45				Humidity [%]: 50			
Sound Transmission Class STC = 50 dB							
Sum of unfavorable deviations: 25.0 dB							
Max. unfavorable deviation: 8.0 dB at 400 Hz							
Frequency	STL	L1	L2	T	Corr.	u.Dev.	ΔSTL
[Hz]	[dB]	[dB]	[dB]	[s]	[dB]	[dB]	
50	37	98.2	69.6	3.89	8.3	--	3.557
63	40	101.2	69.3	3.31	7.6	--	3.148
80	44	105.9	70.7	4.23	8.7	--	4.730
100	39	103.5	72.1	3.67	8.1	--	3.219
125	37	103.9	74.7	3.78	8.2	--	1.237
160	42	104.8	70.8	4.02	8.4	--	1.916
200	36	100.6	73.4	3.94	8.4	4	1.105
250	39	102.5	70.6	2.95	7.1	4	0.678
315	40	103.3	70.0	2.98	7.1	6	0.424
400	41	100.3	66.3	2.95	7.1	8	0.424
500	47	99.0	58.6	2.70	6.7	3	0.480
630	53	99.3	53.2	2.63	6.6	--	0.265
800	55	99.8	51.9	2.63	6.6	--	0.529
1000	57	99.1	48.8	2.45	6.3	--	0.361
1250	58	100.0	47.8	2.16	5.7	--	0.173
1600	59	99.1	46.0	2.05	5.5	--	0.173
2000	63	98.7	40.6	1.85	5.1	--	0.200
2500	66	100.3	39.4	1.69	4.7	--	0.332
3150	66	99.7	38.3	1.52	4.2	--	0.245
4000	67	99.3	36.4	1.33	3.6	--	0.548
5000	70	99.4	32.9	1.15	3.0	--	0.346

STL = Sound Transmission Loss, dB
L1 = Source Room Level, dB
L2 = Receiving Room Level, dB
T = Reverberation Time, seconds
Δ STL = Uncertainty for 95% Confidence Level

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Sound Transmission Loss Test Data

Per: ASTM E 90 - 04 / ASTM E 413 - 04

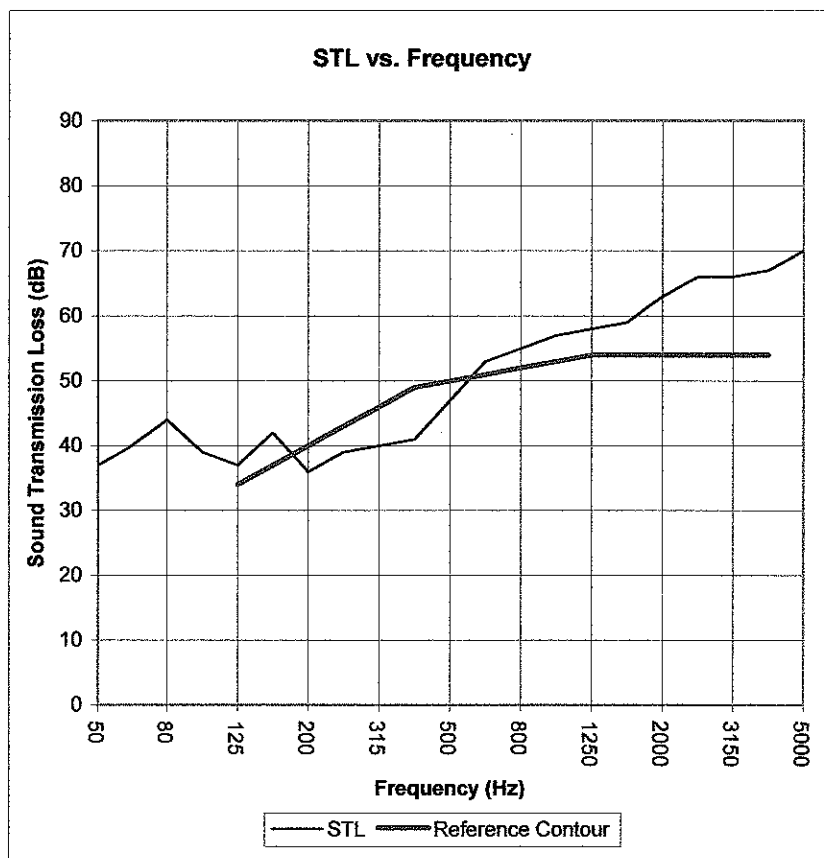
No. of test report: NGC5008072

Test Date: 9/11/2008

Size: 17.84 m²

Sound Transmission Class STC = 50 dB

Frequency [Hz]	STL [dB]	ΔSTL
50	37	3.557
63	40	3.148
80	44	4.730
100	39	3.219
125	37	1.237
160	42	1.916
200	36	1.105
250	39	0.678
315	40	0.424
400	41	0.424
500	47	0.480
630	53	0.265
800	55	0.529
1000	57	0.361
1250	58	0.173
1600	59	0.173
2000	63	0.200
2500	66	0.332
3150	66	0.245
4000	67	0.548
5000	70	0.346



* Due to high insulating value of specimen, background levels limit results at these frequencies.

STL = Sound Transmission Loss, dB
 Δ STL = Uncertainty for 95% Confidence Level

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