



# 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 110<sup>th</sup> 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

**8 Inch (203mm) Concrete Slab Overlaid with  
Engineered Wood Flooring over 3mm Low Density  
Rubber Underlayment**

Page 1 of 4

Report Number: NGC 5008068

Assignment Number: G-441

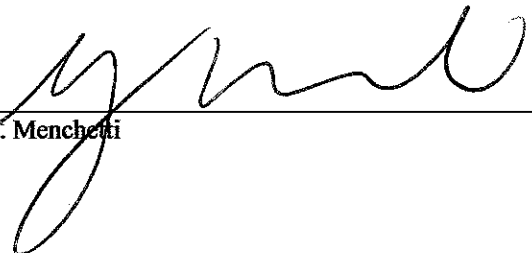
Test Date: 09/02/2008

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.



## Acoustical Testing Laboratory



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

Page 2 of 4

Report Number: NGC 5008068

**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:** 8 inch (203mm) Concrete Slab Overlaid with; 10mm (0.393 in.) Engineered Hardwood Flooring over, 3mm Low Density 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/m<sup>2</sup> (1.18 PSF). Flooring was floating, no adhesive used. Product number RO03R525B – Red Oak.
- 1 layer of 3.2mm (0.125 in.) 400SP Low Density Rubber underlayment. Sample weight was found to be 1.8 kg/m<sup>2</sup> (0.36 PSF). The underlayment was loose laid on floor and joints were taped.
- 1 layer 4 mil poly sheeting attached to concrete with double sided tape at seams and Perimeter.
- 8 inch (203mm) thick reinforced concrete slab 417.9 kg/m<sup>2</sup> (85.6 PSF).

The overall weight of the test assembly is nominal 425.4 kg/m<sup>2</sup> (87.14 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:** Concrete slab cured for a minimum of 28 days.

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

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.



# Acoustical Testing Laboratory



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

## Sound Transmission Loss Test Data

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

Page 3 of 4

No. of test report: NGC5008068

Date: 9/2/2008

Size: 17.84 m<sup>2</sup>

**Source room**

Volume V = 53.2 m<sup>3</sup>

Temperature [°C]: 24.4

Humidity [%]: 52

**Receiving room**

Volume V = 63.0m<sup>3</sup>

Temperature [°C]:23.0

Humidity [%]: 50

**Sound Transmission Class STC = 54 dB**

Sum of unfavorable deviations: 26.0 dB

Max. unfavorable deviation: 5.0 dB at 250 Hz

Frequency	STL	L1	L2	T	Corr.	u.Dev.	ΔSTL
[Hz]	[dB]	[dB]	[dB]	[s]	[dB]	[dB]	
100	42	105.1	71.5	3.66	8.1	--	3.032
125	43	102.0	67.0	3.24	7.6	--	0.510
160	42	107.5	74.4	4.28	8.8	--	1.229
200	41	100.1	67.1	3.98	8.5	3	0.975
250	42	98.2	63.2	3.04	7.3	5	0.510
315	45	103.5	66.1	3.10	7.4	5	1.118
400	49	100.3	58.8	3.02	7.3	4	0.412
500	49	95.3	52.7	2.73	6.8	5	0.480
630	52	94.3	48.6	2.52	6.5	3	0.700
800	55	96.4	48.0	2.57	6.6	1	0.424
1000	59	97.0	44.0	2.43	6.3	--	1.000
1250	62	97.6	41.6	2.16	5.8	--	0.812
1600	64	97.5	39.4	2.01	5.5	--	0.316
2000	67	98.2	36.4	1.79	5.0	--	0.469
2500	68	99.2	36.1	1.65	4.6	--	0.400
3150	71	97.5	30.5	1.48	4.2	--	0.480
4000	69	95.9	30.2	1.28	3.5	--	0.608
5000	70	93.2	26.4	1.13	3.0	--	0.361

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

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.

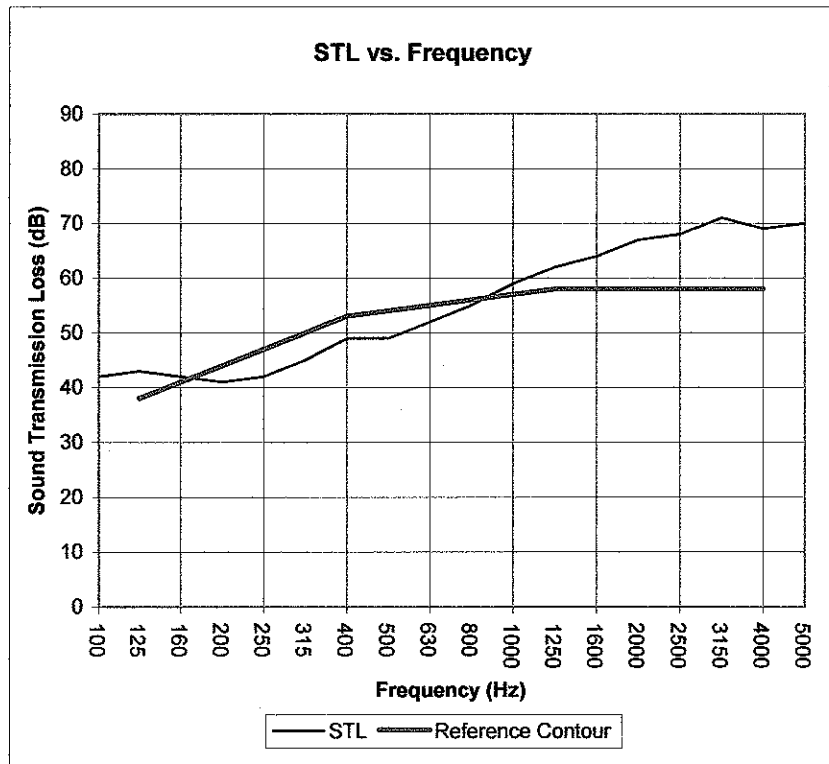
## Sound Transmission Loss Test Data

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

No. of test report: NGC5008068  
 Test Date: 9/2/2008  
 Size: 17.84 m<sup>2</sup>

**Sound Transmission Class STC = 54 dB**

Frequency [Hz]	STL [dB]	ΔSTL
100	42	3.032
125	43	0.510
160	42	1.229
200	41	0.975
250	42	0.510
315	45	1.118
400	49	0.412
500	49	0.480
630	52	0.700
800	55	0.424
1000	59	1.000
1250	62	0.812
1600	64	0.316
2000	67	0.469
2500	68	0.400
3150	71	0.480
4000	69	0.608
5000	70	0.361



\* 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

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.