

Report Number: NGC 5016030

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**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, according to client, Porcelain Tiles over PROFLEX Super SIM 90 underlayment.

The test specimen was a floor-ceiling assembly and observed to consist of the following:

- 1 layer of 7.6mm (0.300 in.) Porcelain Tiles. Sample was 304.8mm x 304.8mm (12 in. x 12 in.)  
Sample weight was 17.3 kg/m<sup>2</sup> (3.54 PSF).
- Latex-modified Thin-set mortar, meeting ANSI Specification 118.1, troweled with a 6.4mm x 9.5mm (1/4 in. x 3/8 in.) square notch trowel. Polymer enhanced sanded grout mixtures 4.9 kg/m<sup>2</sup> (1.0 PSF), meeting ANSI Specification 118.6 and 118.7.
- 1 layer of PROFLEX Super SIM 90 underlayment. Sample was 2.36 mm (0.093 in.) thick.  
Sample weight was 1.17 kg/m<sup>2</sup> (0.24 PSF).

The overall weight of the test assembly is 389.5 kg/m<sup>2</sup> (79.78 PSF).

The perimeter of the test frame was sealed with a rubber gasket and a sand filled trough.

The test assembly was structurally isolated from the receiving room.

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

**Conditioning:** Mortar and grout cured for a minimum of 24 hours, concrete cured minimum of 28 days

**Test Results:** The results of the tests are given on pages 4 and 5 of the report.

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 or any agent of the U.S. Government. This report may not be reproduced except in full, without written approval of the laboratory.

## TEST REPORT

for

**Proflex Products Inc.**  
2826 Broadway Center Blvd.  
Brandon, FL 33510  
Timothy Abbott / 863-937-9623

### Sound Transmission Loss Test

ASTM E 90 - 04 / E 413 - 04

On

**6 Inch (152mm) Concrete Slab Overlaid with  
Porcelain Tiles over PROFLEX Super SIM 90 Underlayment**

Report Number: NGC 5016030

Assignment Number: G-730

Test Date: 11/23/2011

Report Approval Date: 02/15/2016

Submitted by: 

Andrew E. Heuer  
Senior Test Engineer

Reviewed by: 

Robert J. Menchetti  
Director

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Sound Transmission Loss Test Data							
Test: ASTM E 90 - 04 / ASTM E 413 - 04							
Test Report: NGC 5016030				Date: 11/23/2011		Page 3 of 4	
Specimen Size [m²]: 17.8							
<b>Source room</b>				<b>Receiving room</b>			
Volume [m³]: 53.2				Volume [m³]: 63.9			
Rm Temp [°C]: 18				Rm Temp [°C]: 18			
Humidity [%]: 53				Humidity [%]: 53			
<b>Sound Transmission Class STC [dB]: 52</b>							
Sum of Unfavorable Deviations [dB]: 32							
Max. Unfavorable Deviation [dB]: 7				at 315 Hz			
Frequency [Hz]	STL [dB]	L1 [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔSTL
100	33	105.2	80.0	16.3	7.8		3.42
125	35	105.2	78.8	15.8	8.6	1	2.67
160	36	107.9	80.6	14.6	8.7	3	2.23
200	36	106.3	79.0	15.2	8.7	6	1.30
250	40	105.8	73.4	17.4	7.6	5	0.79
315	41	102.0	69.1	17.8	8.1	7	0.92
400	44	101.9	65.2	18.8	7.2	7	1.13
500	49	103.0	60.9	19.2	7.0	3	0.44
630	54	104.3	57.3	20.0	7.1		0.48
800	57	103.6	53.9	20.8	7.3		0.42
1000	58	100.5	49.1	23.0	6.6		0.46
1250	58	97.7	45.5	25.5	5.8		0.42
1600	59	98.5	45.4	26.9	5.9		0.46
2000	64	99.9	41.0	29.1	5.1		0.63
2500	67	101.1	38.9	32.0	4.8		0.70
3150	70	100.2	34.4	35.4	4.2		1.05
4000	73	97.7	29.1	41.4	4.4		1.38
5000	74	91.5	20.9	48.5	3.4		1.57

STL = Sound Transmission Loss, dB  
 L1 = Source Room Level, dB  
 L2 = Receiving Room Level, dB  
 d = Decay Time, dB/second  
 ΔSTL = Uncertainty for 95% Confidence Level

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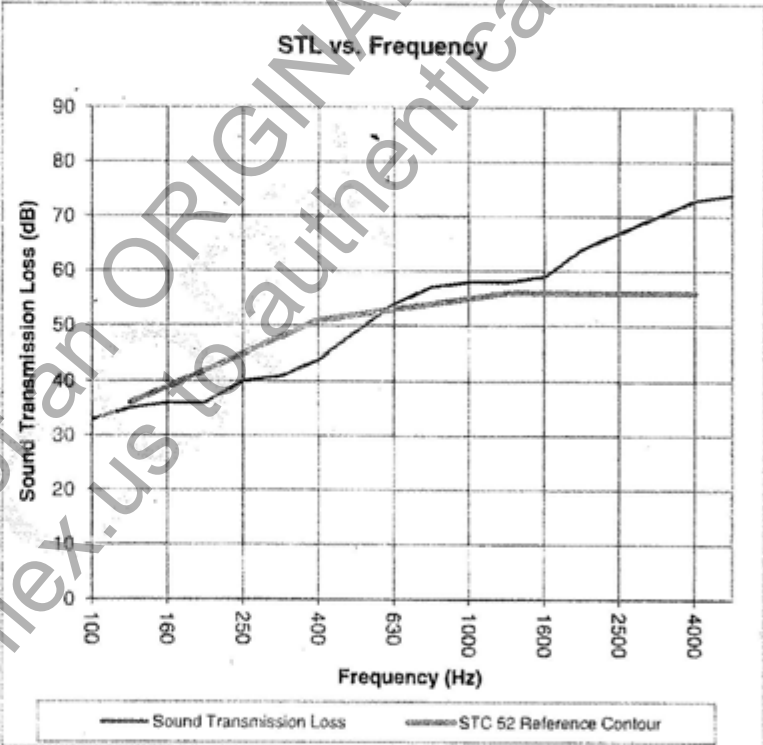
**Sound Transmission Loss Test Data**

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

Test Report: NGC 5016030  
 Test Date: 11/23/2011  
 Specimen Size [m<sup>2</sup>]: 17.8

**Sound Transmission Class STC = 52 dB**

Frequency [Hz]	STL [dB]	ΔSTL
100	33	3.42
125	35	2.67
160	36	2.23
200	36	1.30
250	40	0.79
315	41	0.92
400	44	1.13
500	49	0.44
630	54	0.48
800	57	0.42
1000	58	0.46
1250	58	0.42
1600	59	0.46
2000	64	0.63
2500	67	0.70
3150	70	1.05
4000	73	1.38
5000	74	1.57



\* 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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