



Acoustical Testing Laboratory

TEST REPORT

for

Diversified Foam Products
5117 Central Highway
Pennsauken NJ 08109
Conrad Ambrette / 856-662-1981

Sound Transmission Loss Test
ASTM E 90 - 02
On

Floor-Ceiling Assembly
6" Concrete Slab with Suspended Gypsum Ceiling Overlaid with;
Wood Laminate Flooring over FloorMuffler Underlayment

DIV.TR.003

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Test Numbers: NGC 5004002

Page 1 of 4

Assignment Number: G-192

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Specimen Receipt Date: NA

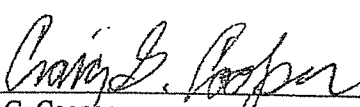


Test Date: 02/25/2004

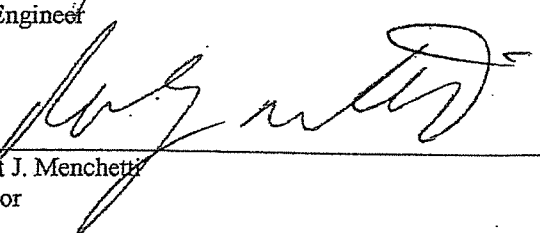
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Report Date: 02/26/2004

Submitted by:


Craig G. Cooper
Test Engineer

Reviewed by:


Robert J. Menchetti
Director

The results reported above apply to specific samples submitted for measurement.

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TRUSCO COMPANY
GOLD BOND® BUILDING PRODUCTS

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Page 2 of 4

Report Number: NGC 5004002

Test Method: This test method generally follows * 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 - 02.

Specimen Description: Floor-ceiling assembly. 6" concrete slab with suspended gypsum ceiling covered with, according to client; wood laminate flooring over FloorMuffler Underlayment.

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

- 1 layer of T&G wood laminate flooring, 5/16" thick, 7-3/4" wide planks, (1.58 PSF).
- 1 layer of, green foam, 0.075" thick underlayment (0.022 PSF).
- 1 layer 6" reinforced concrete (75.0 PSF)
- Drywall grid suspension system consisting of 5/8" type X gypsum board (2.3 PSF) attached with 1-1/8" screws, 12" o.c. to suspended grid suspension system. 12" plenum with 3-1/2" lay-in fiberglass insulation (0.16 PSF).

The overall weight of the test assembly is 79.1 PSF nominal.

The perimeter of the floor assembly was sealed with rubber gasketing and a sand filled trough. The test assembly is structurally isolated from the receiving room. Board joints were taped and the ceiling perimeter was sealed with acoustical caulk.

Specimen size: 12 ft x 16 ft.

Test samples were submitted by client and tested as received.

Conditioning: NA

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

* Tests conducted in Floor-Ceiling chambers do not meet all requirements of the most recent ASTM E 90 Standard.

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Sound Transmission Loss Test Data

Page 3 of 4

Per: ASTM E 90 - 02 / ASTM E 413 - 87

No. of test report: NGC5004002

Test Date: 2/25/2004

Size: 17.8 m²

Temperature [°C]: 19.8

Sound Transmission Class STC = 73 dB

Sum of unfavorable deviations: 30.0 dB

Max. unfavorable deviation: 7.0 dB at 125 Hz

Frequency [Hz]	STL [dB]	L1 [dB]	L2 [dB]	T [s]	Corr. [dB]	u.Dev. [dB]	ΔSTL
100	51	103.9	60.4	2.15	7.7	--	1.249
125	50	99.4	57.2	2.12	7.7	7.0	1.536
160	54	101.2	56.6	3.07	9.3	6.0	0.616
200	58	98.7	49.8	3.09	9.3	5.0	0.548
250	62	99.2	46.6	3.22	9.5	4.0	0.574
315	67	100.2	42.4	3.03	9.2	2.0	0.548
400	71	102.1	39.8	2.90	9.0	1.0	0.300
500	71	99.5	37.4	2.75	8.8	2.0	0.686
630	71	98.1	35.6	2.66	8.7	3.0	0.400
800	77	99.0	30.8	2.71	8.8	--	0.300
1000	77	97.4	29.3	2.65	8.7	--	0.707
1250	78	96.3	26.8	2.38	8.2	--	0.173
1600	78	97.4	27.5	2.20	7.8	--	0.583
2000	78	97.2	26.3	1.93	7.3	--	0.200
2500	84	99.7	22.4	1.64	6.6	--	0.200
3150	86	99.5	19.5	1.51	6.2	--	0.458
4000	87	99.5	18.2	1.36	5.7	--	0.412
5000	86	96.8	16.5	1.21	5.2	--	0.755

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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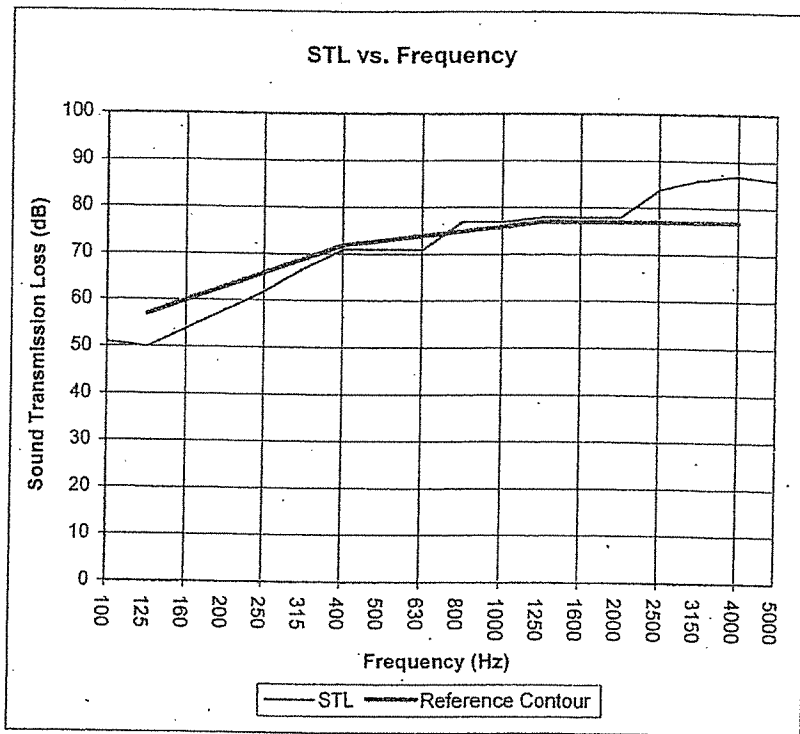
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Size: 17.8 m²

Temperature [°C]: 19.8

Sound Transmission Class **STC = 73 dB**

Frequency [Hz]	STL [dB]	ΔSTL
100	51	1.249
125	50	1.536
160	54	0.616
200	58	0.548
250	62	0.574
315	67	0.548
400	71	0.300
500	71	0.686
630	71	0.400
800	77	0.300
1000	77	0.707
1250	78	0.173
1600	78	0.583
2000	78	0.200
2500	84	0.200
3150	86	0.458
4000	87	0.412
5000	86	0.755



* 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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