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TEST REPORT

for

Proflex Products, Inc.
2500 Drane Field Road – Suite 105
Lakeland, FL 33811
Gerard L. Gigon / 863-937-9623

Impact Sound Transmission Test
ASTM E 492 – 90 / ASTM E 989 - 89
On

8" Concrete Slab Floor-Ceiling Assembly Overlaid with:
Quarry Tile over PROFLEX MSC 90 Mega Sound Control Membrane Underlayment

Report Number: NGC 7004062 Reissued 03/23/2012

Assignment Number: G-771

Specimen Receipt Date: NA

Test Date: 09/22/2004

Report Date: 10/04/2004

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

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.
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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 – 90.

The uncertainty limits of each tapping machine location met the provision requirements of section 10.3 of ASTM E 492-90.

Specimen Description: 8" Concrete Slab and Suspended Gypsum Board Ceiling Overlaid with: Quarry Tile over, according to client PROFLEX MSC 90 Mega Sound Control Membrane Underlayment. This specimen was originally submitted by Northern Elastomeric, Inc., identified as "Proflex 90 MSC Membrane Underlayment" and tested on 09/22/2004. This report reflects the current product name of the material tested.

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

- 1 layer of 6"x 6" x 1/2" unglazed clay quarry tile (5.6 PSF) installed using polymer modified MAPEI Kerabond mortar and polymer modified grout mixtures (1.0 PSF).
- 1 layer of 0.090" thick PROFLEX MSC 90 membrane floor underlayment with fabric side up. (0.50 PSF) Membrane was self-adhered to liner paper that is adhered to the concrete at the perimeter and tapping machine areas with double-sided tape.
- 8" thick reinforced concrete slab (85.6 PSF).
- Suspended ceiling system consisting of nominal 5/8" type X gypsum board (2.3 PSF) attached with 1-1/8" screws, 12" o.c. to suspended Rigid X ceiling grid system. 10" plenum with 3-1/2" of lay-in fiberglass insulation (0.16 PSF).

The overall weight of the test assembly is 95.16 PSF.

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

Specimen size: 12 ft x 16 ft.

Conditioning: Tile, mortar, and grout cured for a minimum of 7 days. Concrete slab cured for a minimum of 28 days.

Test samples were submitted by client and tested as received.

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

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Normalized impact sound pressure level

Test: ASTM E 492 - 90 / ASTM E 989 - 89

Test Number: NGC7004062 Date: 9/22/2004
Size: 17.84 m²

Source room

Temperature [°C]: 22.0
Humidity [%]: 63

Receiving room
Volume V = 40.00 m³
Temperature [°C]: 22.5
Humidity [%]: 54

Impact Insulation Class IIC = 68 dB

Sum of unfavorable deviations: 29.0 dB
Max. unfavorable deviation: 8.0 dB at 2500 Hz

Frequency [Hz]	L_n [dB]	L2 [dB]	T [s]	Corr. [dB]	u.Dev. [dB]	ΔL_n
100	38.0	44.0	2.32	-6.0	-.-	0.341
125	47.0	52.7	2.63	-5.7	3.0	0.315
160	40.0	47.4	3.68	-7.4	-.-	0.202
200	40.0	46.8	3.09	-6.8	-.-	0.135
250	36.0	43.1	3.21	-7.1	-.-	0.143
315	38.0	44.9	3.13	-6.9	-.-	0.090
400	34.0	40.4	2.95	-6.4	-.-	0.066
500	34.0	40.0	2.72	-6.0	-.-	0.080
630	35.0	41.4	2.61	-6.4	-.-	0.063
800	34.0	40.3	2.66	-6.3	-.-	0.051
1000	33.0	39.1	2.61	-6.1	-.-	0.045
1250	36.0	41.9	2.34	-5.9	-.-	0.042
1600	37.0	42.2	2.15	-5.2	4.0	0.048
2000	36.0	40.2	1.84	-4.2	6.0	0.035
2500	35.0	38.8	1.63	-3.8	8.0	0.040
3150	32.0	35.4	1.56	-3.4	8.0	0.038
4000	30.0	32.9	1.40	-2.9	-.-	0.030
5000	26.0	29.0	1.27	-3.0	-.-	0.035

L_n = Normalized Sound Pressure Level, dB
L2 = Receiving Room Level, dB
T = Reverberation Time, seconds
ΔL_n = Uncertainty for 95% Confidence Level

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Normalized impact sound pressure level

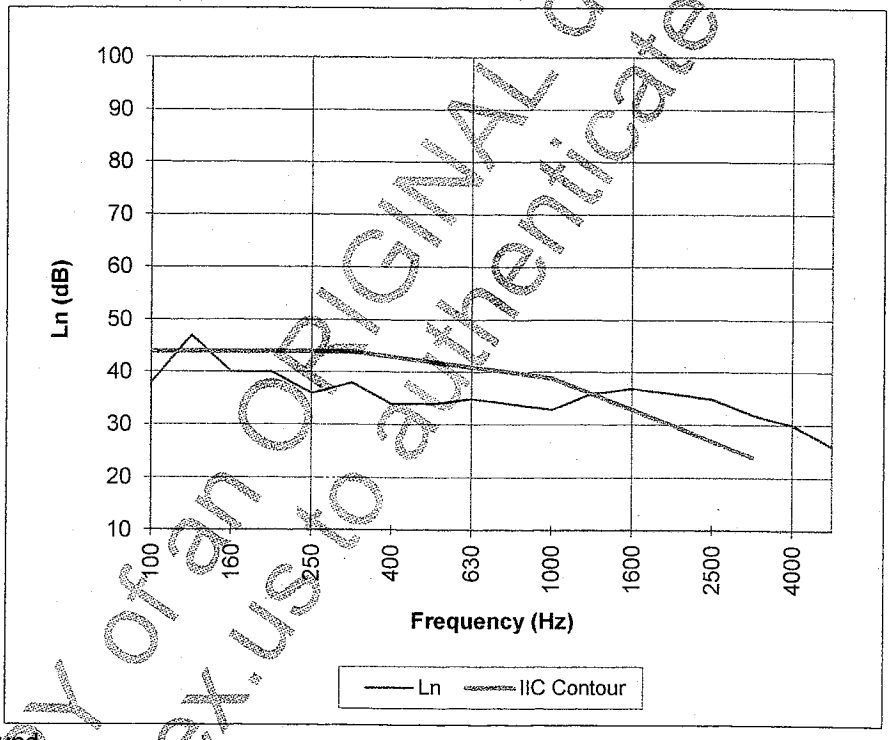
Test: ASTM E 492 - 90 / ASTM E 989 - 89

Test Number: NGC7004062

Date: 9/22/2004

Impact Insulation Class IIC = 68.0 dB

Frequency [Hz]	L_n [dB]	
100	38	
125	47	*
160	40	
200	40	
250	36	
315	38	
400	34	
500	34	*
630	35	*
800	34	
1000	33	
1250	36	
1600	37	
2000	36	
2500	35	
3150	32	
4000	30	
5000	26	



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

L_n = Normalized Sound Pressure Level, dB

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