



Acoustical Testing Laboratory



Accredited by the National Voluntary
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under Lab Code 200291

TEST REPORT

for

Midwest Padding, L.L.C.
P.O. Box 2283
2500 Old Hadar Road
Norfolk, NE 68702-2283
Robert Pratt / 888-379-9695

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

**Engineered Wood Flooring on Plywood on Insulayment™ Underlayment over
8" Concrete Slab Floor-Ceiling Assembly**

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Report Number: NGC 7004065

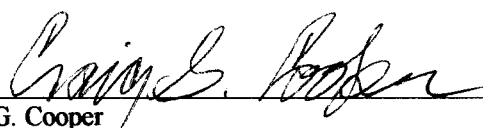
Assignment Number: G-231

Specimen Receipt Date: 09/09/2004

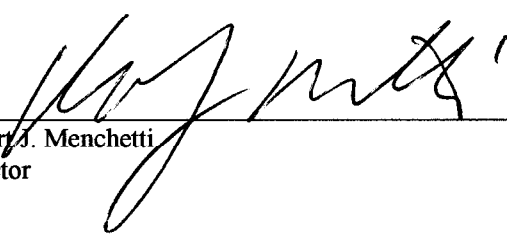
Test Date: 09/28/2004

Report Date: 10/01/2004

Submitted by: _____


Craig G. Cooper
Test Engineer

Reviewed by: _____


Robert J. Menchetti
Director

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

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 floor-ceiling assembly overlaid with;
Engineered wood flooring on plywood over Insulayment™ underlayment.

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

- 1 layer of Eternity Brand prefinished, T&G engineered wood flooring, (Red Oak Natural) 3/8" x 2-3/4" x (random length 12" - 48") (1.26 PSF). Blind nailed to plywood with 3/4" brad nails 16" o.c.
- 2 layers of 3/8" plywood (staggered and taped joints) glued and screwed together with #8 3/4" steel wood screws 16" o.c., OSI SF-450 heavy duty construction & sub-floor adhesive. (1.84 PSF)
- 1 layer of 1/8" Midwest Padding Insulayment™ underlayment, made of nonwoven fibers. (0.14 PSF)
- 8" thick reinforced concrete slab (85.6 PSF).

The overall weight of the test assembly is 88.84 PSF nominal.

The perimeter of the floor assembly was sealed with fiber gasketing and a sand filled trough. The test assembly is structurally isolated from the receiving room.

Specimen size: 12 ft x 16 ft.

Test samples were submitted by client and tested as received.

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

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: NGC7004065					Date: 9/28/2004	
Size: 17.84 m ²					Page 3 of 4	
Source room			Receiving room			
Temperature [°C]: 23.6			Volume V = 44.33 m ³			
Humidity [%]: 57			Temperature [°C]: 23.2			
				Humidity [%]: 51		
Impact Insulation Class IIC = 52 dB						
Sum of unfavorable deviations: 20.0 dB						
Max. unfavorable deviation: 8.0 dB at 160 Hz						
Frequency	L _n	L2	T	Corr.	u.Dev.	ΔL _n
[Hz]	[dB]	[dB]	[s]	[dB]	[dB]	
100	64.0	68.5	2.24	-4.5	4.0	0.199
125	63.0	68.2	2.37	-5.2	3.0	0.287
160	68.0	73.4	2.51	-5.4	8.0	0.204
200	65.0	71.2	2.74	-6.2	5.0	0.180
250	56.0	62.0	2.59	-6.0	--	0.168
315	52.0	58.4	2.80	-6.4	--	0.083
400	44.0	49.7	2.68	-5.7	--	0.068
500	40.0	45.2	2.55	-5.2	--	0.080
630	37.0	42.2	2.24	-5.2	--	0.062
800	31.0	36.6	2.38	-5.6	--	0.058
1000	27.0	32.4	2.36	-5.4	--	0.058
1250	27.0	31.6	2.06	-4.6	--	0.052
1600	26.0	30.0	1.84	-4.0	--	0.049
2000	23.0	27.2	1.67	-4.2	--	0.039
2500	21.0	24.7	1.49	-3.7	--	0.040
3150	20.0	23.3	1.37	-3.3	--	0.038
4000	18.0	20.6	1.20	-2.6	--	0.035
5000	14.0	16.2	1.07	-2.2	--	0.052

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

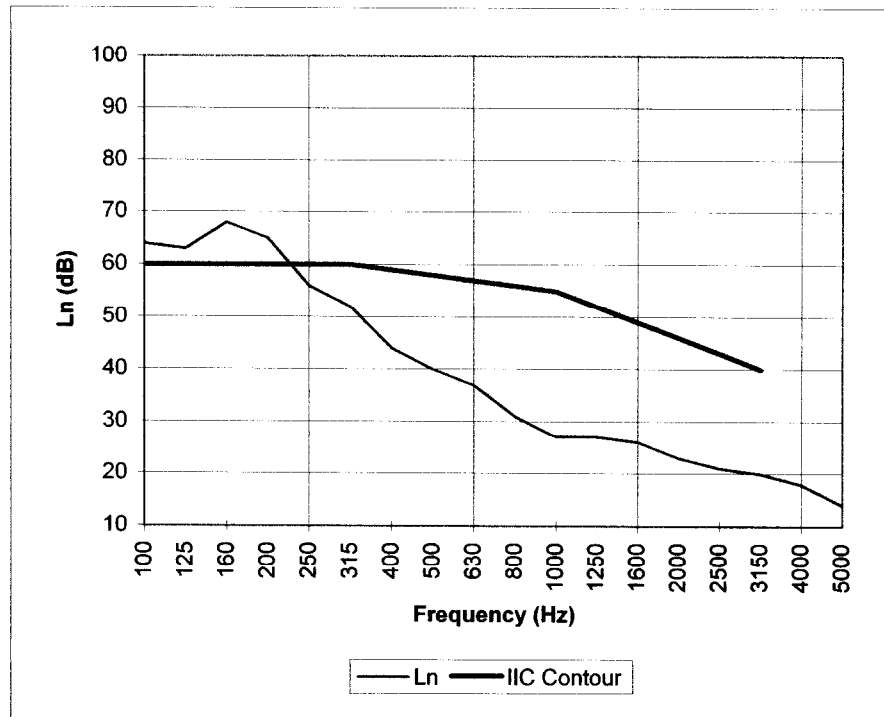
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Test Number: NGC7004065

Date: 9/28/2004

Impact Insulation Class IIC = 52 dB

Frequency [Hz]	L_n [dB]
100	64
125	63
160	68
200	65
250	56
315	52
400	44
500	40
630	37
800	31
1000	27
1250	27
1600	26
2000	23
2500	21
3150	20
4000	18
5000	14



* 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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