



Acoustical Testing Laboratory



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TEST REPORT

for

Unifloor Underlay Systems BV
Munsterstraat 24
7418EV DEVENTER
The Netherlands
Gerry Maatjes/ 31 570 85 55 33

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

**Linoleum Sheet Floor Covering over JUMPAX Underlayment
Installed over 6" Concrete Slab**

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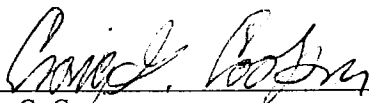
Report Number: NGC 7003012

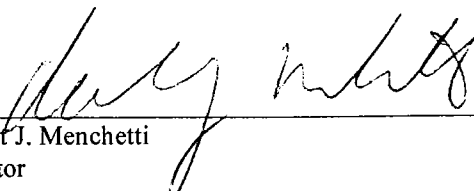
Assignment Number: G-171

Specimen Receipt Date: 03/17/2003

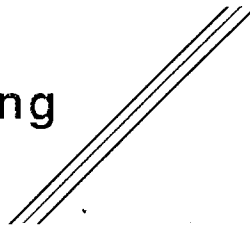
Test Date: 03/20/2003

Report Date: 03/26/2003

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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Report Number: NGC 7003012

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.

Specimen Description: Linoleum Sheet Floor Covering over UNIFLOOR by Deventer 'JUMPAX' Dual Underlayment System installed over 6" Concrete Slab.

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

- 1 layer of 2.0 mm (0.08") Forbo Marmoleum Linoleum PN 3077 sheet flooring, 2.64 kg/m² (0.54 PSF)
- 1 layer of Forbo L910 flooring adhesive.
- Dual Layer Underlayment System:
 - Top layer of 4 mm (5/32") thick pressed fibrous material underlayment panels, 1200 mm (47-5/16") x 60 mm (23-5/8"), 3.07 kg/m² (0.63 PSF).
 - Bottom layer a laminate of 3.2 mm (1/8") pressed fibrous material board with adhesive on the top side and 1.6 mm (1/16") foil backed white foam material attached to the bottom side, 2.64 kg/m² (0.54 PSF).
- 1 layer of 0.1 mm (0.004") plastic sheeting.
- 6" thick reinforced concrete slab, 366 kg/m² (75.00 PSF)

The overall weight of the test assembly is 374.5 kg/m² (76.71PSF).

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.

Specimen size: Underlayment – 3.66 m x 4.88 m (12 ft x 16 ft).
Linoleum – 2 m x 4.5m (6.5 ft x 14.75 ft) centered over the underlayment.

Conditioning: Concrete slab cured for a minimum of 28 days.

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						
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Test Number: NGC7003012			Date: 03/20/2003			
Size: 17.8 m ²						
Source room			Receiving room			
Temperature [°C]: 20.1			Volume V = 49.0 m ³			
Humidity [%]: 38			Temperature [°C]: 20.2			
			Humidity [%]: 58			
Impact Insulation Class IIC = 51 dB						
Sum of unfavourable deviations: 26.0 dB						
Max. unfavourable deviation: 8.0 dB at 160 Hz						
Frequency	L _n	L ₂	T	Corr.	u.Dev.	ΔL _n
[Hz]	[dB]	[dB]	[s]	[dB]	[dB]	
100	60.0	65.5	2.69	-5.5	--	0.222
125	65.0	69.9	2.64	-4.9	4.0	0.166
160	69.0	74.2	2.60	-5.2	8.0	0.225
200	67.0	72.5	2.93	-5.5	6.0	0.146
250	69.0	75.2	2.94	-6.2	8.0	0.121
315	60.0	66.2	2.94	-6.2	--	0.099
400	59.0	64.6	2.76	-5.6	--	0.084
500	53.0	57.8	2.46	-4.8	--	0.083
630	52.0	56.7	2.43	-4.7	--	0.071
800	45.0	50.5	2.64	-5.5	--	0.060
1000	41.0	46.5	2.61	-5.5	--	0.057
1250	32.0	36.6	2.13	-4.6	--	0.060
1600	26.0	29.5	1.96	-3.5	--	0.062
2000	20.0	23.5	1.76	-3.5	--	0.054
2500	16.0	18.7	1.57	-2.7	--	0.056
3150	12.0	14.7	1.44	-2.7	--	0.055
4000	10.0	11.9	1.26	-1.9	--	0.043
5000	11.0	12.1	1.13	-1.1	--	0.046
<p>L_n = Normalized Sound Pressure Level, dB L₂ = Receiving Room Level, dB T = Reverberation Time, seconds ΔL_n = Uncertainty for 95% Confidence Level</p>						

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Normalized impact sound pressure level

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

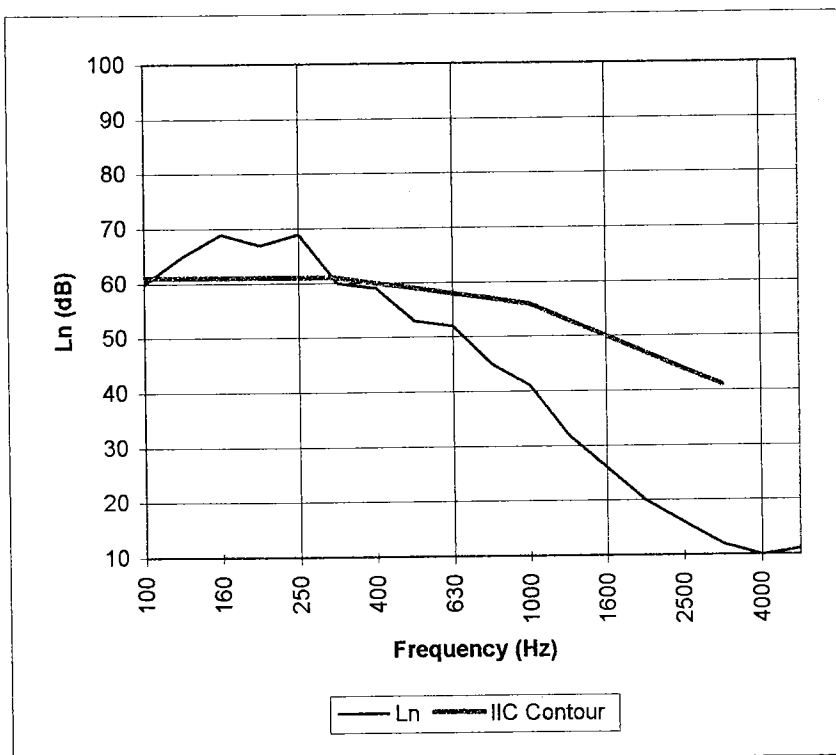
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Test Number: NGC7003012

Date: 03/20/2003

Impact Insulation Class IIC = 51 dB

Frequency [Hz]	L_n [dB]
100	60
125	65
160	69
200	67
250	69
315	60
400	59
500	53
630	52
800	45
1000	41
1250	32
1600	26
2000	20
2500	16
3150	12
4000	10
5000	11



* 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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