

## TEST REPORT

for

**Regupol America LLC**  
11 Ritter Way  
Lebanon, PA 17042  
Florian Sassmannshausen / 717-675-2190

### Impact Sound Transmission Test

ASTM E 492 – 09 / ASTM E 989 – 06

On

**6 Inch Concrete Slab Floor – Ceiling Assembly  
Overlaid with 3 layers of Regupol Vibration 300 (17 mm)  
and a 4 Inch Concrete Slab**

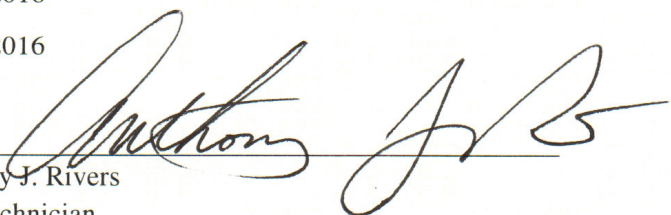
Report Number: NGC 7016083

Assignment Number: G-1296

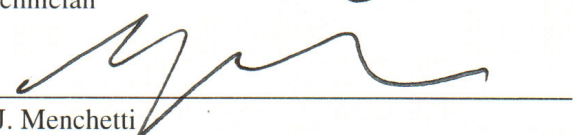
Test Date: 05/10/2016

Report Approval Date: 05/19/2016

Submitted by:

  
Anthony J. Rivers  
Test Technician

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. The laboratory's accreditation or any of its test reports in no way constitute or imply product certification, approval, or endorsement by NVLAP, NIST or any agency of the Federal Government. This report may not be reproduced except in full, without written approval of the laboratory.

**Revision Summary:**

<b>Date</b>	<b>SUMMARY</b>
Approval Date: 05/19/2016	Original issue date: 05/19/2016 Original NGCTS report #: NGC 7016083

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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 492-09/ E 989-06.

The uncertainty limits of each tapping machine location met the precision requirements of section A1.4 of ASTM E 492-09.

Specimen Description: 6 inch concrete slab floor-ceiling assembly, overlaid with according to client, 3 layers of Regupol Vibration 300 (17 mm) and a 4 inch concrete slab.

The test specimen was a floor-ceiling assembly and was observed to consist of the following:  
All weights and dimension are averaged:

- 101.6 mm (4 in.) thick reinforced concrete slab, weighing: 223.30 kg/m<sup>2</sup> (45.74 PSF)
- 3 layers of, according to the client, Regupol Vibration 300 (17 mm). The Regupol Vibration 300 (17 mm) was floating on the 6 inch concrete slab. Measured thickness: 54.10 mm (2.13 in.). Measured weight: 21.68 kg/m<sup>2</sup> (4.44 PSF)
- 152.4 mm (6 in.) thick reinforced concrete slab, weighing: 366.15 kg/m<sup>2</sup> (75.0 PSF)

The overall weight of the test assembly is: 611.13 kg/m<sup>2</sup> (125.18 PSF)

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

The test frame was structurally isolated from the receiving room.

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

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

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

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<b>Normalized impact sound pressure level</b>						
Test: ASTM E 492 - 09 / ASTM E 989 - 06						
Test Report: NGC7016083					Date: 5/10/2016	
Specimen Size [m <sup>2</sup> ]: 17.8					Page 4 of 5	
<b>Source room</b>			<b>Receiving room</b>			
Rm Temp [°C]: 19			Volume [m <sup>3</sup> ]: 128			
Humidity [%]: 58			Rm Temp [°C]: 19			
			Humidity [%]: 58			
<b>Impact Insulation Class IIC [dB]: 67</b>						
Sum of Unfavorable Deviations [dB]: 28						
Max. Unfavorable Deviation [dB]: 8			at 250 Hz			
Frequency	L <sub>n</sub>	L2	d	Corr.	u.Dev.	ΔL <sub>n</sub>
[Hz]	[dB]	[dB]	[dB/s]	[dB]	[dB]	
80	52	52.3	27.74	-0.3		0.70
100	48	49.2	20.36	-1.2	3	2.31
125	48	50.8	14.94	-2.8	3	1.15
160	52	54.8	16.27	-2.8	7	0.99
200	49	52.1	14.37	-3.1	4	0.75
250	53	55.2	16.13	-2.2	8	0.93
315	48	51.2	15.17	-3.2	3	0.51
400	44	46.7	16.39	-2.7		0.38
500	37	40.3	16.97	-3.3		0.59
630	35	36.8	17.07	-1.8		0.72
800	32	34.3	17.05	-2.3		0.93
1000	27	30.7	16.82	-3.7		0.66
1250	27	30.0	18.17	-3.0		0.79
1600	28	30.0	19.83	-2.0		0.84
2000	26	27.0	21.80	-1.0		0.74
2500	24	25.0	24.15	-1.0		0.82
3150	17	18.9	26.09	-1.9		0.99
4000	14	15.4	29.98	-1.4		1.23
5000	14	14.4	34.95	-0.4		1.27
L <sub>n</sub> = Normalized Sound Pressure Level, dB L2 = Receiving Room Level, dB d = Decay Rate, dB/second ΔL <sub>n</sub> = Uncertainty for 95% Confidence Level						

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**Normalized impact sound pressure level**

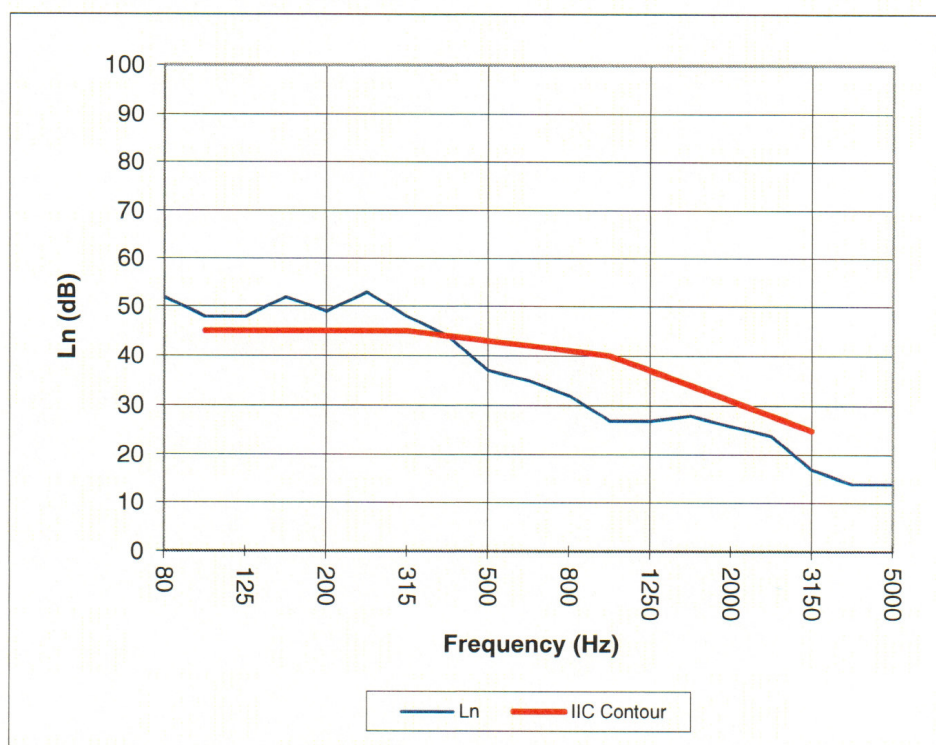
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Test Report: NGC7016083  
 Test Date: 5/10/2016  
 Specimen Size [m<sup>2</sup>]: 17.8

**Impact Insulation Class IIC [dB]: 67**

Frequency [Hz]	L <sub>n</sub> [dB]
80	52
100	48
125	48
160	52
200	49
250	53
315	48
400	44
500	37
630	35
800	32
1000	27
1250	27
1600	28
2000	26
2500	24
3150	17
4000	14
5000	14



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

L<sub>n</sub> = Normalized Sound Pressure Level, dB

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