

KINETICS NOISE CONTROL TEST REPORT #AT001093

- **KINETICS NOISE CONTROL PRODUCTS:**

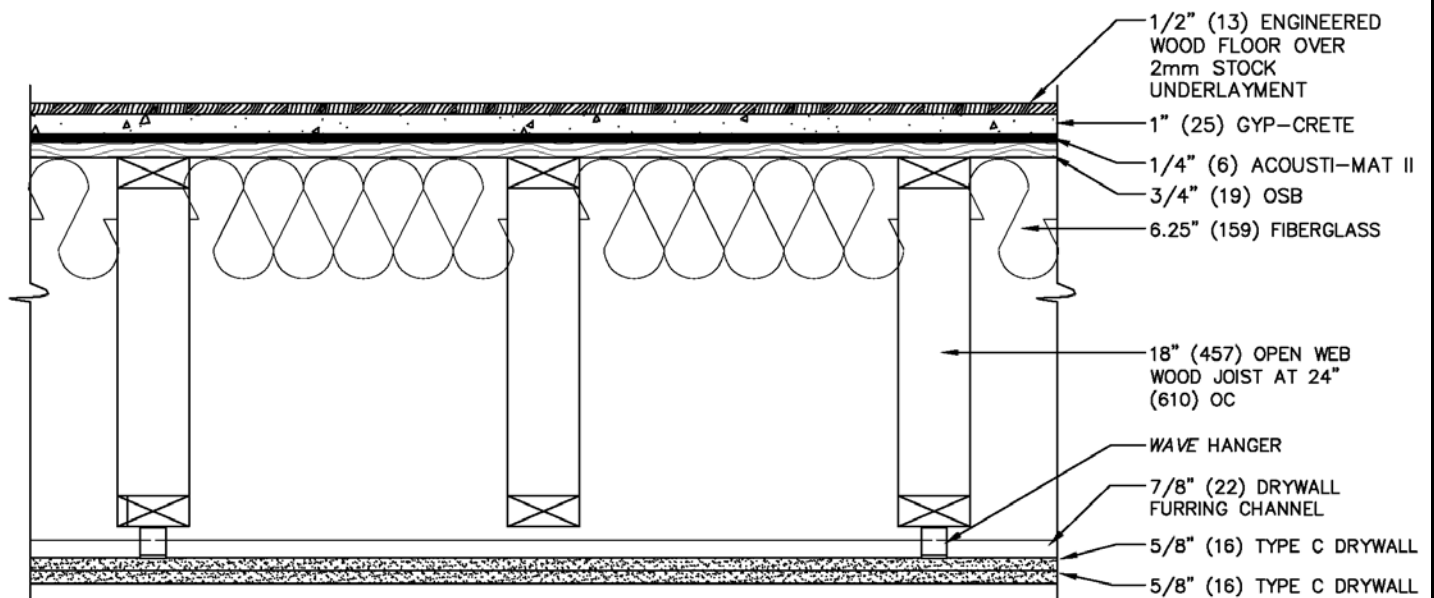
- WAVE HANGER

- **ACOUSTICAL RATINGS:**

- IIC 61

- **TESTING AGENCY & REPORT NUMBER:**

- NGC TESTING SERVICES
- NGC 7011040



KINETICS DRAWING NUMBER: AT001093



6300 IRELAN PLACE, DUBLIN OH

PHONE: 800.959.1229

FAX: 614.889.0540

WEB: WWW.KINETICSNOISE.COM

EMAIL: ARCHSALES@KINETISNOISE.COM



Acoustical Testing Laboratory



Accredited by the National Voluntary
Laboratory Accreditation Program
for the specific scope of accreditation
under Lab Code 200291

TEST REPORT

For

MAXXON® Corporation
920 Hamel Road
Hamel, MN 55340
Josh Jonsson / (763) 478-9600

Kinetics® Noise Control
6300 Irelan Place
Dublin, OH 43017
Matt Golden / (614) 889-0480

Impact Sound Transmission Test

ASTM E 492 – 09 / ASTM E 989 – 06

On

**½ Inch Engineered Wood Flooring on
Stock Underlayment on
1 inch (25.4mm) Gyp-Crete 2000®/3.2K Gypsum Floor Underlayment on
Acousti-Mat II® over
18 inch (457.2mm) Wood Truss Floor-Ceiling Assembly with
Fiberglass Insulation, Kinetics® Noise Control WAVE Hanger, Hat Channel
And Double Layers of 5/8 Inch Type C Gypsum Board Ceiling**

Page 1 of 4

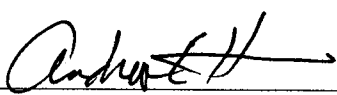
Report Number: NGC 7011040

Assignment Number: G-652

Test Date: 04/14/2011

Report Date: 06/20/2011

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.

This report may not be reproduced except in full, without the written approval of the laboratory.

The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.

Report Number: NGC 7011040

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 / E989 – 06.
The uncertainty limits of each tapping machine location met the precision requirements of section A1.4 of ASTM E 492-09.

Specimen Description: 18 inch (457.2mm) wood truss floor-ceiling assembly including Kinetics® Noise Control WAVE Hangers for resilient support of gypsum board ceiling, overlaid with, according to client, ½ inch (12.7mm) Engineered Wood Flooring on stock Underlayment on 1 inch (25.4mm) Gyp-Crete 2000®/3.2K Gypsum Floor Underlayment over Acousti-Mat® II. The test specimen was a floor-ceiling assembly consisting of the following:

- 1 layer of Engineered Wood Flooring, ID: Harris Wood, Hickory Natural, 12.7mm (0.5 in.) thick x 116.8mm (4.6 in.) wide x random length) planks, 8.15 kg/m² (1.67 PSF).
- 1 layer of stock underlayment, 2.16mm (0.085 in.) thick, 0.78 kg/m² (0.16 PSF).
- 1 layer of 25.4mm (1 in.) nominal Maxxon® Gyp-Crete 2000® / 3.2K Underlayment. 49.8 kg/m² (10.2 PSF). Cured for a minimum of 14 days.
- 1 layer of Acousti-Mat® II, sound deadening pad, filaments with white fabric installed by client, 6.4mm (¼ in.) thick, 0.59 kg/m² (0.12 PSF).
- 19.1mm (¾ in.) T&G OSB sub-floor 7.3 kg/m² (1.5 PSF) fastened to wood joists with 6d common nails spaced 304.8mm (12 in.) o.c. in field and 152.4mm (6 in.) o.c. at joints and perimeter and heavy duty sub floor glue.
- 88.9mm x 457.2mm x 3657.6mm (3-1/2 in. x 18 in. x 12 ft.) open web wood truss joists spaced 609.6mm (24 in.) o.c. 11.8 kg/m² (2.42 PSF) Attached with 16d nails @ 3 per side to 50.8mm x 254mm x 4876.8mm (2 in. x 10 in. x 16 ft.) rim boards.
- 1 layer of 158.8mm (6-1/4 in.) fiberglass batt insulation, 1.95 kg/m² (0.40 PSF) installed at the top of open truss air space.
- Kinetics Noise® Control WAVE Hangers, Black No-44, 31 units and Silver No-22, 4 units. All hangers installed 609.6mm (24 in.) o.c. along the bottom of alternate truss joists per Kinetics® installation instructions.
- 20 ga. Hat channels hung perpendicular to the joists using the WAVE Hangers spaced 609.6mm (24 in.) on center. 0.85 kg/m² (0.175 PSF)
- 2 layers 15.9mm (5/8 in.) Type C wallboard 24.4 kg/m² (5.0 PSF), attached 304.8mm (12 in.) o.c. perpendicular to hat channels with 31.8mm (1-1/4 in.) type S Screws first layer, 41.3mm (1-5/8 in.) second layer. The wallboard joints were staggered with surface joints taped.

The overall weight of the test assembly is 105.7 kg/m² (21.65 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.

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

Test samples were submitted by client and tested as received.

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

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

No responsibility is assumed for performance of any other specimen.

This report may not be reproduced except in full, without the written approval of the laboratory.

The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.

Acoustical Testing Laboratory

Normalized impact sound pressure level

Test: ASTM E 492 - 09 / ASTM E 989 - 06

Page 3 of 4

Test Report: NGC7011040

Date: 4/14/2011

Specimen Size [m²]: 17.8

Source room

Rm Temp [°C]: 19

Humidity [%]: 44

Receiving room

Volume [m³]: 61.2

Rm Temp [°C]: 18.5

Humidity [%]: 61

Impact Insulation Class IIC [dB]: 61

Sum of Unfavorable Deviations [dB]: 26

Max. Unfavorable Deviation [dB]: 6 at 200 Hz

Frequency	L _n	L ₂	d	Corr.	u.Dev.	ΔL _n
[Hz]	[dB]	[dB]	[dB/s]	[dB]	[dB]	
100	54	59.7	17.3	-5.7	3	2.85
125	51	56.6	15.3	-5.6		1.66
160	56	62.0	14.8	-6.0	5	1.81
200	57	63.2	15.5	-6.2	6	1.10
250	54	60.0	17.3	-6.0	3	0.62
315	56	60.9	20.3	-4.9	5	0.52
400	54	58.5	21.2	-4.5	4	0.40
500	49	52.9	24.9	-3.9		0.19
630	43	47.4	26.7	-4.4		0.31
800	38	41.9	27.2	-3.9		0.22
1000	36	39.6	28.3	-3.6		0.23
1250	30	32.6	29.8	-2.6		0.23
1600	20	24.4	31.8	-4.4		0.42
2000	19	22.2	34.7	-3.2		0.82
2500	13	17.3	37.8	-4.3		0.95
3150	13	16.6	40.8	-3.6		1.08
4000	12	15.3	45.8	-3.3		0.78
5000	9	12.0	51.2	-3.0		0.81

L_n = Normalized Sound Pressure Level, dB

L₂ = Receiving Room Level, dB

d = Decay Time, dB/second

ΔL_n = Uncertainty for 95% Confidence Level

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

No responsibility is assumed for performance of any other specimen.

This report may not be reproduced except in full, without the written approval of the laboratory.

The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.

Normalized impact sound pressure level

Test: ASTM E 492 - 09 / ASTM E 989 - 06

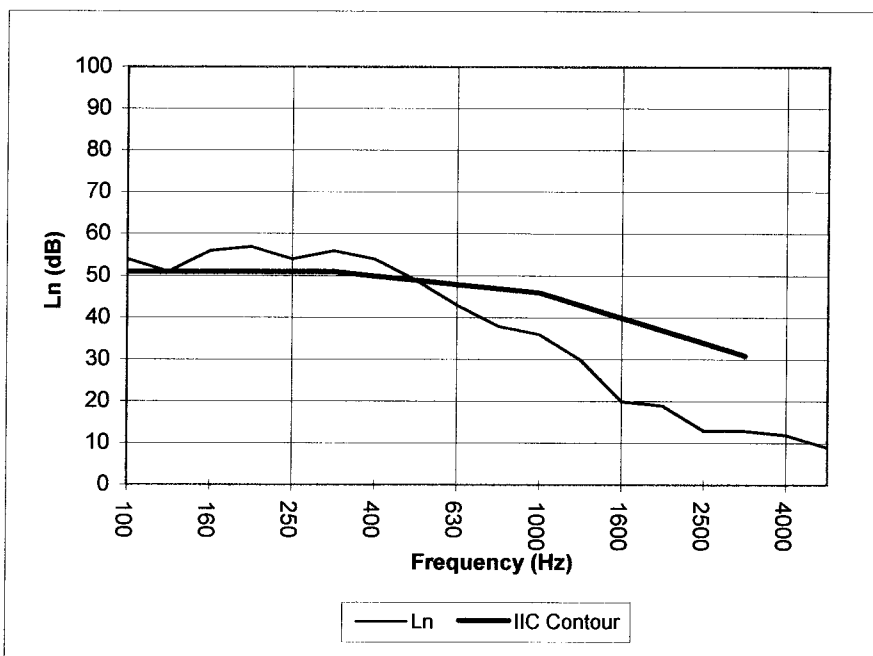
Test Report: NGC7011040

Test Date: 4/14/2011

Specimen Size [m²]: 17.8

Impact Insulation Class IIC [dB]: 61

Frequency	L_n
[Hz]	[dB]
100	54
125	51
160	56
200	57
250	54
315	56
400	54
500	49
630	43
800	38
1000	36
1250	30
1600	20
2000	19
2500	13
3150	13
4000	12
5000	9



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

L_n = Normalized Sound Pressure Level, dB

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

No responsibility is assumed for performance of any other specimen.

This report may not be reproduced except in full, without the written approval of the laboratory.

The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.