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January 29, 2016

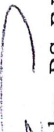
Prepared for: Carlos Gaitan.
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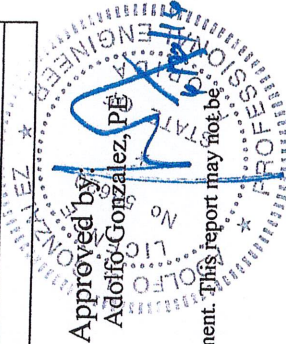
Subjects: Acoustic Test Report FIIC
In Town Condominium
1900 SW 8 street

Report:

Field Impact Insulation Class (FIIC) Test. ASTM-1007/ E1007-14

TEST DATE	01/26/16
DATA FILE #	163566/A
CLIENT	C.A.C SOUNDCONTRACTOR
DESCRIPTION	8" Concrete Slab, 2mm SOUNDMIAMI Underlayment, 12"x12" Tile, 5/8 gypsum board, 1 5/8" Cavity between Gypsum board and concrete slab.
ESPECIMEN AREA	25 SF
TEMPERATURE	72* F
FIIC	45

Tested by: 
Roberto Gonzalez . BS. INCE, ASA
Acoustical Consultant



Approved by:
Adolfo Gonzalez, PE

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The results in this report apply to specific samples submitted for measurement. This report may not be reproduced without the written approval of Acoustic Sonic Inc.

Introduction.

This report presents the results of field impact insulation class (FIIC) test for floor/ceiling assemblies in batt room of apt 302/402, IN TOWN Condominium, Miami, Florida. Impact insulation test were conducted in compliance with ASTM-1007 and ISO 140/7 Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Trough Floor - Ceiling Assemblies.

Impact Noise Fundamentals.

The act of walking across a floor generates noise due to mechanisms: footfall and structural deflection. Footfall noise is created by the impact of a hard object, such as a heel, striking the surface of a floor. Impact noise can be measured using a standard tapping machine as a source which leads to an Impact Insulation Class (IIC) rating. The IIC test measures the reaction of a floor system to a series of small hammers dropped from a standard height, the higher the IIC rating, the more the impact noise isolation between the two spaces. The level of impact noise in the receiving space is primarily dependent on the softness of the floor covering. Hard surface floors must be installed on thick resilient underlayment and used in conjunction with a vibrationally-isolated ceiling to achieve medium quality results. The amount of sound absorption in the receiving room affect the noise level, the greater the absorption, the lower will be the noise level. Therefore, in rating constructions, noise levels in the receiving room are corrected so they are independent of the total sound absorption in the receiving room. FIIC is a single-number rating of the insulation against impact in the field adjusting the receiving room levels to take into account the difference between sound absorption in the receiver rooms is used.

Measuring Equipment.

Measurements were made using the following equipment.

Cesva SC 30 Sound Level Analyzer type 1 precision.

Acoustical Calibrator Lab: 94 db

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Tapping Machine Cesva mod: M1005

The sound level meter was calibrated immediately prior to and immediately after the measurements was carried out.

Scope of Work.

The scope of this study included measuring of the Standardized Impact Sound Level were carried out in accordance with ASTM E 1007. A single figure rating of impact sound insulation performance was calculated from the measurements using the procedures detailed ASTM 492. 2 tapping positions were selected in the unit 402. For each position measurements of Sound Level were made in 4 randomly chosen positions in the receiving room. The Tapping Machine and Sound Level Meter were always at least 2 ft away from the room boundary.

The microphone was mounted at the approximate 5 ft 6 in height above the finish floor. Sound Pressure Levels were made in one third octave bands from 100 Hz-4000 Hz, each one third octave measurement took approximately 6 seconds. Background noise levels were measured in receiving room and no corrections for background noise were required. The reverberation times of the receiving room were measured by recording wide band continuous pink noise. Measurements were made in accordance with ANSI.

All SPL measurements are in dB re 20 micro pascals

Test Results.

The results of the FIIC test are summarized in Table 1. This table presents the calculated normalized sound pressure level(SPL) values for each of sixteen standard 1/3-octave band test frequencies. Table 1 also list the receiving room absorption values in each frequency band. The receiving room volume was less than ideally required by ASTM E1007 for testing in the 100 Hz, however, this would not affect the test result, due to the FIIC rating was control by frequencies above 100 hz.

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IMPACT SOUND PRESSURE LEVEL IN THE RECEIVER BATHROOM

Numerical Analyzer mode_C:\Program Files\CESVA Capture Studio\Files\01-26-2016_3-17-12_004_RT.A.ocf

Cursor data
01/26/2016 3:17:16 PM

31.5Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
LT:	45.2	64.9	61.1	59.3	62.5	63.5	64.6	59.7	46.1	30.1

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