



# REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 3169380

Date: December 31, 2008

**REPORT NO. 3169380CRT-002b**

**IMPACT SOUND TRANSMISSION TEST AND  
CLASSIFICATION OF ZAXON IONIQUE VINYL TILE OVER  
JUMPAX DUAL UNDERLAYMENT SYSTEM  
ON A SIX INCH CONCRETE SLAB**

**RENDERED TO**

**SOUND SEAL  
50 H. P. ALMGREN DRIVE  
AGAWAM, MA 01001**

## INTRODUCTION

This report gives the results of an Impact Sound Transmission test and the determination of the Impact Insulation Class of Zaxon Ionique Vinyl tile over Jumpax Dual Underlayment System. The sample was selected and supplied by the client and received at the laboratories on December 5, 2008. The sample appeared to be in a new, unused condition.

## AUTHORIZATION

Signed Intertek Quotation No. 500122601.

## TEST METHOD

The floor system was tested in general accordance with the American Society for Testing and Materials designation ASTM E492-04, "Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine". It was classified in accordance with ASTM E989-06, entitled, "Standard Classification for Determination of Impact Insulation Class (IIC)".

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## **TEST METHOD** – Cont'd

The method is designed to measure the impact sound transmission performance of a floor-ceiling assembly, in a controlled laboratory environment. A standard tapping machine (B & K Type 3204) was placed at four positions on a test floor that forms the horizontal separation between two rooms, one directly above the other. The data obtained was normalized to a reference room absorption of 10 square meters in accordance with the test method.

The standard also prescribes a single-figure classification rating called "Impact Insulation Class, IIC" which can be used by architects, builders and code authorities for acoustical design purposes in building construction.

The IIC is obtained by matching a standard reference contour to the plotted normalized one-third octave band sound pressure levels at each test frequency. The greater the IIC rating, the lower the impact sound transmission through the floor-ceiling assembly

## **DESCRIPTION OF THE FLOOR/CEILING ASSEMBLY**

The floor system consisted of a six inch thick concrete slab that forms the horizontal separation between two rooms. The slab is not isolated from the receiving room walls.

## **DESCRIPTION OF TEST SPECIMENS**

The test specimen consisted of Zaxon Ionique Vinyl Tile and Jumpax Dual Underlayment System. The underlayment was made up of a Dual Fiberboard construction with Foam fiber backing on one layer. The tile measured 18 inches by 18 inches by a nominal 0.12 inches in thickness and weighed 1.11 lbs per sq ft. The underlayment measured 23 inches by 47 inches a nominal 0.37 inches in thickness and weighed 1.10 lbs per sq ft.



**RESULTS OF TEST**

The data obtained in the room below the panel normalized to  $A_0 = 10$  square meters, is as follows:

<u>1/3 Octave Band Center Frequency Hertz</u>	<u>1/3 Octave Band Sound Pressure Level dB re 0.0002 Microbar</u>
100	61
125	67
160	67
200	68
250	66
315	64
400	58
500	57
630	54
800	47
1000	41
1250	37
1600	34
2000	33
2500	30
3150	26
Impact Insulation Class (IIC)	51

*PRECISION*

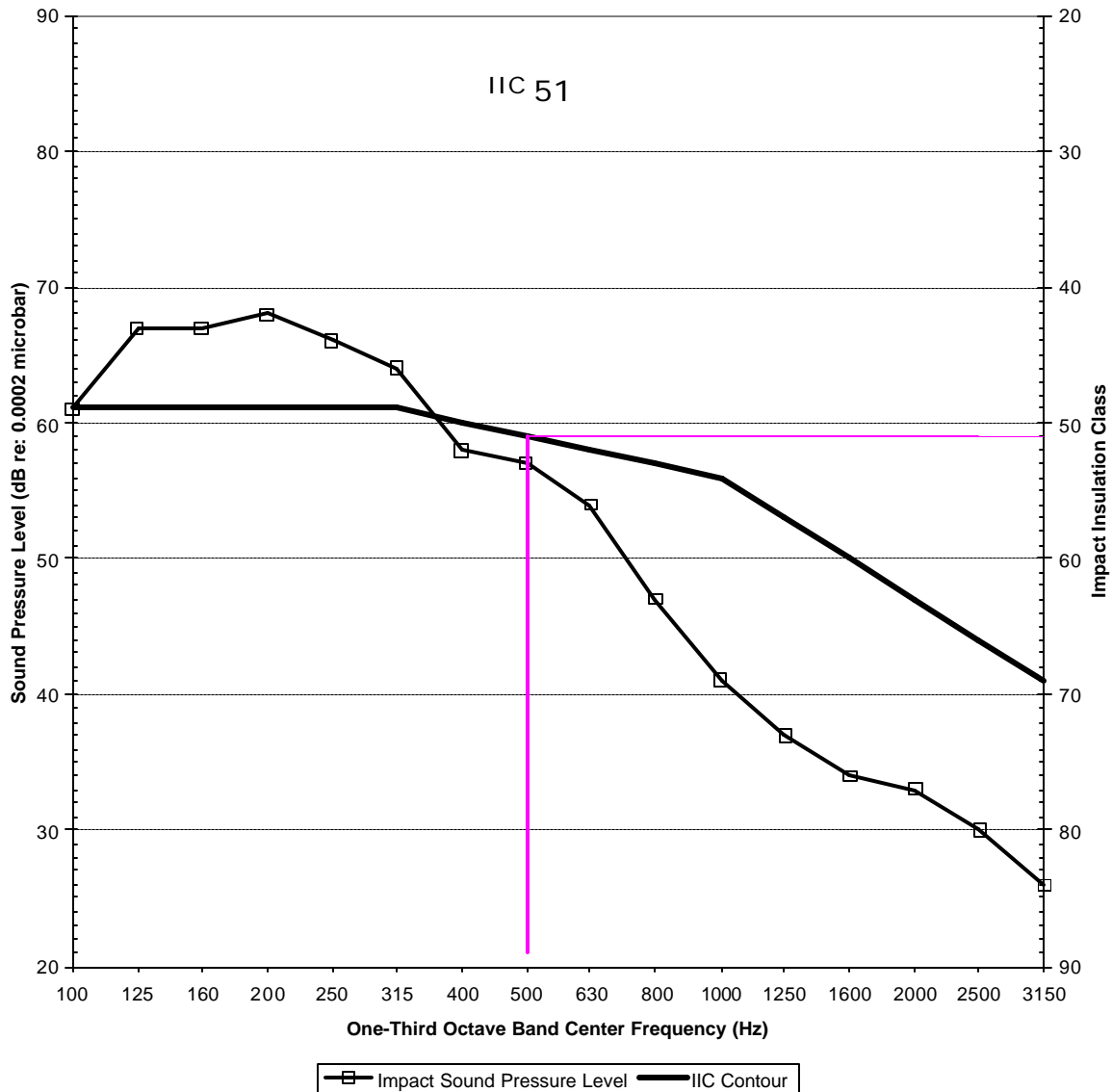
The 95% uncertainty level for each tapping machine location is less than 3 dB for the 1/3 octave bands centered in the range from 100 to 400 Hz and less than 2.5 dB for the bands centered in the range from 500 to 3150 Hz.

For the floor/ceiling construction, the 95% uncertainty limits ( $?L_n$ ) for the normalized sound pressure levels were determined to be less than 2 dB for the 1/3 octave bands centered in the range from 100 to 3150 Hz.



**ZAXON IONIQUE VINYL TILE OVER  
JUMPAX DUAL UNDERLAYMENT SYSTEM  
OVER 6 INCH CONCRETE**

Impact Insulation Class



**SOUND SEAL**

**REMARKS**

1. Curing Period: None.
2. Ambient Temperature: 70°F
3. Relative Humidity: 36%

**CONCLUSION**

The test method employed for this test has no pass-fail criteria; therefore, the evaluation of the test results is left to the discretion of the client.

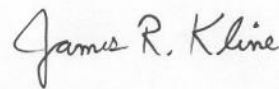
Date of Test: December 12, 2008

Report Approved by:



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Attachments: None