



# REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 3169380

Date: December 31, 2008

**REPORT NO. 3169380CRT-001**

**IMPACT SOUND TRANSMISSION TEST AND  
CLASSIFICATION OF ZAXON OASIS VINYL TILE  
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 Oasis Vinyl tile. The sample was selected and supplied by the client and received at the laboratories on December 5, 2008. The samples 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 3207) 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 SPECIMEN**

The test specimen consisted of Zaxon Oasis Vinyl Tile. The tile measured 18 inches by 18 inches by a nominal 0.12 inches in thickness and weighed 1.11 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	62
125	67
160	68
200	69
250	70
315	71
400	70
500	71
630	71
800	71
1000	70
1250	71
1600	72
2000	74
2500	72
3150	69
Impact Insulation Class (IIC)	31

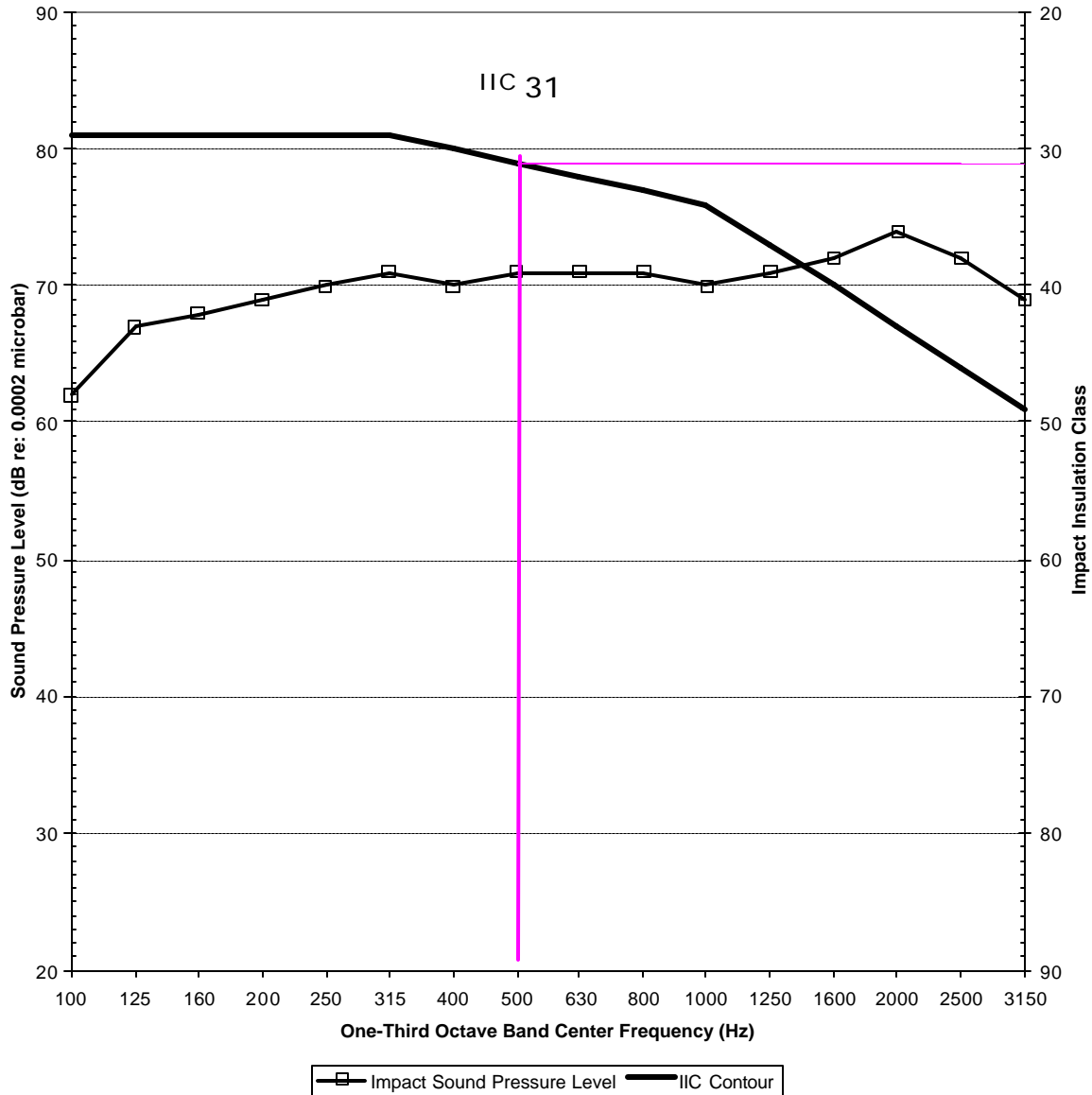
*PRECISION*

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 OASIS VINYL TILE  
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

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Attachments: None