FOR THE SCOPE OF ACCREDITATION
UNDER NVLAP LAB CODE 100402-0.

REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 100579518 January 30, 2012

REPORT NO. 100579518CRT-001a

IMPACT SOUND TRANSMISSION TEST AND CLASSIFICATION OF VINYL PLANKS OVER ACOUSTICORK CORKPLUS 250 2.5mm UNDERLAYMENT OVERGYPSUM CONCRETE ON A WOOD JOIST FLOOR/CEILING ASSEMBLY

RENDERED TO

AMORIM CORK COMPOSITES
26112 110TH STREET
TREVOR, WI 53179

INTRODUCTION

This report gives the results of Impact Sound Transmission Loss Test and Classification of vinyl planks over AcoustiCORK CorkPLUS 250 2.5mm underlayment over gypsum concrete on a wood joist floor/ceiling assembly. The floor/ceiling assembly was supplied and installed by Intertek. The flooring and underlayment were supplied by the client. The sample appeared to be in a new, unused condition.

AUTHORIZATION

Signed Quote No. 500337941

TEST METHOD

The specimens was tested in accordance with the American Society for Testing and Materials designation ASTM E492-09, “Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine”. The sample was classified in accordance with ASTM E989-2006, entitled, “Standard Classification for Determination of Impact Insulation Class (IIC)”. The volume of the receiving room was 283 m^3.

GENERAL

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 (Bruel & Kjaer 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 test floor is a 100 sq. ft. opening that forms the horizontal separation of the two rooms, one directly above the other. The materials used in the assembly from top to bottom are:

- 1.50 inch Gypsum Concrete
- ¾ inch thick tongue & groove OSB decking
- 10 inch high wood I-joists (spaced 16 in. o.c.)
- 3.5 inch, R-11 batt insulation installed at the top of the cavities
- Dietrich RC Deluxe Resilient Channels (spaced 16 in. o.c.) fastened at every intersection
- One layer of 5/8 inch thick gypsum board (taped and finished with compound) (fastened 12 inches o.c.)

DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of Roppe 4x36 inch luxury vinyl planks over AcoustiCORK CorkPLUS 250 2.5mm underlayment. The 3 mm thick vinyl planks weighed 0.64 lbs/sq. ft. The underlayment was adhered with Roppe 635 Moisture Cured Polyurethane to a plastic film loose laid on the gypsum flooring. The flooring was adhered with Roppe ROP 360 Acrylic Tile & Stair Tread.

RESULTS OF TESTS

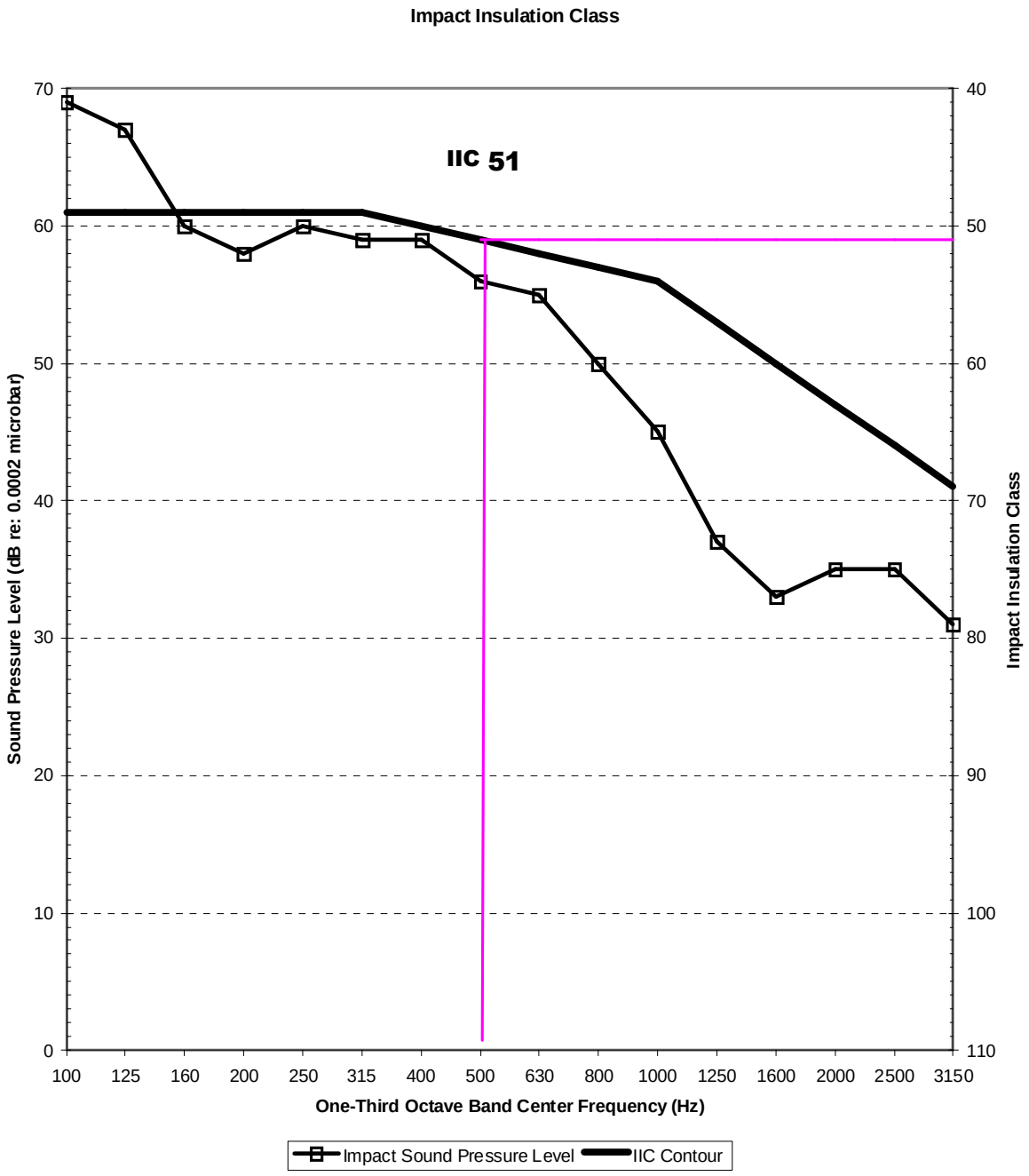
The data obtained in the room below the panel normalized to A_o = 10 square meters, is as follows:

1/3 Octave Band Center Frequency Hz	1/3 Octave Band Sound Pressure Level dB re 0.0002 Microbar
	Test #1
50	71
63	70
80	67
100	69
125	67
160	60
200	58
250	60
315	59
400	59
500	56
630	55
800	50
1000	45
1250	37
1600	33
2000	35
2500	35
3150	31
Impact Insulation Class (IIC)	51

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 (ΔL_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 3500.

TEST #1



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REMARKS

1. Ambient Temperature: 69°F
2. Relative Humidity: 21 %

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.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test: January 16, 2011

Report Approved by:

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Attachments: None