REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 100579518 Date: January 30, 2012

REPORT NO. 100579518CRT-002a

SOUND TRANSMISSION LOSS TEST AND CLASSIFICATION OF VINYL PLANKS OVER ACOUSTICORK CORKPLUS 250 2.5mm UNDERLAYMENT OVER A WOOD JOIST FLOOR/CEILING ASSEMBLY WITH A 1½ INCH THICK GYPSUM CONCRETE TOPPING

RENDERED TO

AMORIM CORK COMPOSITES
26112 110TH STREET
TREVOR, WI 53179

INTRODUCTION

This report gives the results of a Sound Transmission Loss Test and Classification on vinyl planks over AcoustiCORK CorkPLUS 250 2.5mm underlayment. 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

Intertek Quote No. 500337941.

TEST METHOD

The specimen was tested in general accordance with the American Society for Testing and Materials designation ASTM E90-09, "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements", and classified in accordance with the American Society for Testing and Materials designation ASTM E413-10, “Classification for Rating Sound Insulation". The size of the source room for the measurements is smaller than the minimum recommended of 125m^3. This leads to slightly elevated uncertainties in the measurement data at low frequencies and does not allow microphones to be placed in full accordance with section A.2.

GENERAL

The sound-insulating property of a partition element is expressed in terms of the sound transmission loss. The procedure for determining this quantity is to mount (and perimeter seal) the test specimen as a partition between two reverberation rooms. Sound is introduced in one of the rooms (the source room) and measurements are made of the noise reduction between source room and receiving room. The rooms are so arranged and constructed that the only significant sound transmission between them is through the test specimen.

The purpose of the Sound Transmission Class (STC) is to provide a single figure rating that can be used for comparing the sound-insulating properties of partition elements used for general building design purposes. The higher the rating (STC) the greater the sound insulating properties of the partition.

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.

VINYL PLANKS OVER ACOUSTICORK CORKPLUS 250 2.5mm UNDERLAYMENT OVER A WOOD JOIST FLOOR/CEILING ASSEMBLY WITH 1½ INCHES OF GYPSUM CONCRETE

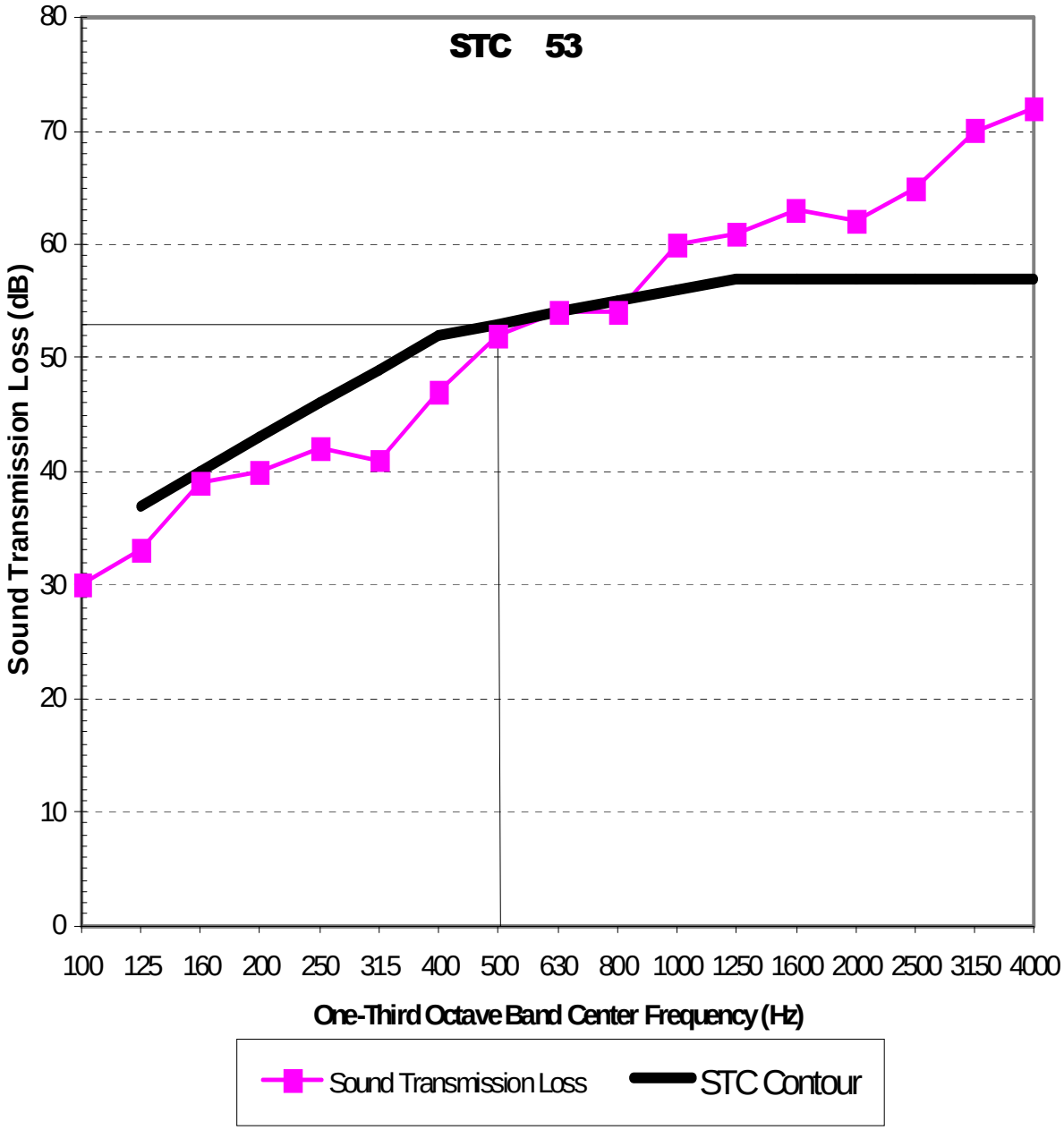
1/3 Octave Band Center Frequency Hertz	Sound Transmission Loss in dB
80	26
100	30
125	33
160	39
200	40
250	42
315	41
400	47
500	52
630	54
800	54
1000	60
1250	61
1600	63
2000	62
2500	65
3150	70
4000	72
5000	75
Sound Transmission Class	53

PRECISION

For the Intertek flooring test facility, the 95% confidence interval ΔTL, is as follows:

Range of One-Third Octave Bands	Transmission Loss 95% Confidence Uncertainty, dB
125 and 200	<4.0
250 and 315	<2.0
400 - 4000	<1.5

Sound Transmission Loss



AMORIM CORK COMPOSITES

REMARKS

1. Aging Period: Gypsum Concrete 7 days
2. Ambient Temperature: 69℉
3. 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.

Date of Test: January 16, 2012

Report Approved by:

Brian Cyr
Engineer
Acoustical Testing

Report Reviewed By:

James R. Kline
Engineer/Quality Supervisor
Acoustical Testing

Attachments: None