



Total Quality. Assured.

REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 105030300

Date: March 18, 2024

REPORT NO. 105030300CRT-010g

**SOUND TRANSMISSION LOSS TEST AND
CLASSIFICATION OF TEST NUMBER #305678
ID: ASPEN LVT 7x48"x3mm, 28MIL FLOORING
OVER A WOOD JOIST FLOOR/CEILING ASSEMBLY
WITH A 0.75 INCH THICK GYPSUM CONCRETE TOPPING**

RENDERED TO

LUX FLOORING

INTRODUCTION

This report gives the results of a Sound Transmission Loss test on vinyl plank flooring. The sample was selected and supplied by the client and received at the laboratories on March 6, 2024. The material appeared to be in new, unused condition upon arrival.

AUTHORIZATION

Signed Intertek Quotation No. Qu-01371399-0

TEST METHOD

The specimen was tested in general accordance with the American Society for Testing and Materials designation ASTM E90-09 (2016), "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 E413-22, "Classification for Rating Sound Insulation". The size of the source room for the measurements is smaller than the minimum recommended of 125m³. 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.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. Measurement uncertainty budgets have been determined for applicable test methods and are available upon request.

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:

- 0.75 inch thick Gypsum Concrete
- $\frac{3}{4}$ inch thick tongue & groove OSB decking (glued and screwed)
- 18 inch high Open Web Trusses (spaced 24 inches on center)
- 3.5 inch, unfaced insulation installed at the top of the cavities
- Dietrich RC Deluxe Resilient Channels (spaced 16 inches on center) fastened at every intersection
- One layer of $\frac{5}{8}$ inch thick Type C Gypsum Board (taped and finished with compound)

DESCRIPTION OF TEST SPECIMEN

The sample consisted of test sample #305678 ID: Aspen LVT 7x48"x3mm, 28 mil flooring. The vinyl plank floor samples measured 7-1/4 inches wide by 48 inches long, and weighed 1.06 pounds per square foot.

**TEST NUMBER #305678 ID: ASPEN LVT 7x48"x3mm, 28MIL FLOORING
OVER A WOOD JOIST FLOOR/CEILING ASSEMBLY
WITH 0.75 INCH THICK GYPSUM CONCRETE TOPPING**

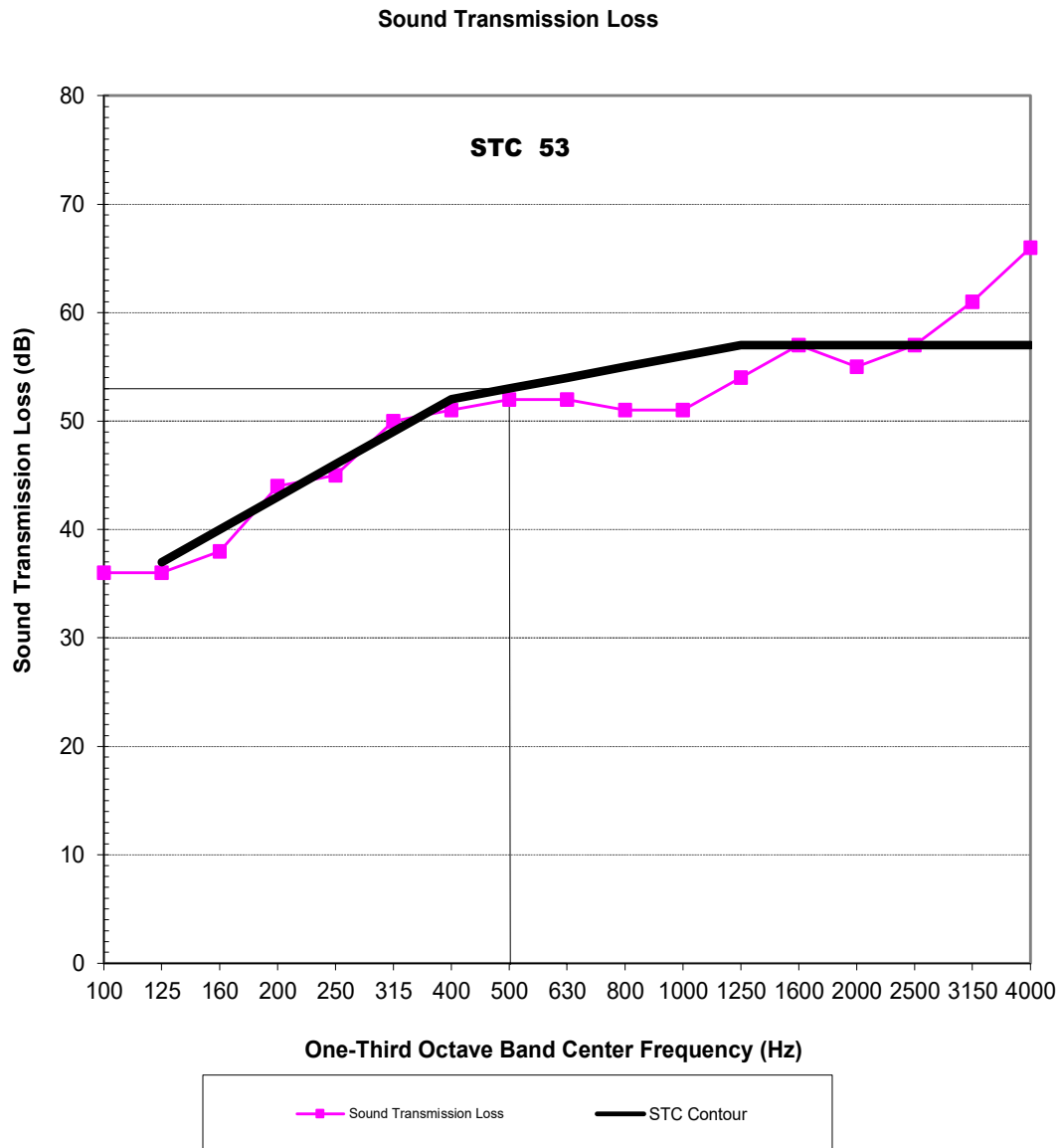
1/3 Octave Band Center Frequency <u>Hertz</u>	<u>Sound Transmission Loss in dB</u>
80	30
100	36
125	36
160	38
200	44
250	45
315	50
400	51
500	52
630	52
800	51
1000	51
1250	54
1600	57
2000	55
2500	57
3150	61
4000	66
5000	67
Sound Transmission Class	53

PRECISION

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

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

**TEST NUMBER #305678 ID: ASPEN LVT 7x48"x3mm, 28MIL FLOORING
OVER A WOOD JOIST FLOOR/CEILING ASSEMBLY
WITH 0.75 INCH THICK GYPSUM CONCRETE TOPPING**



LUX FLOORING

REMARKS

1. Ambient Temperature: 70°F
2. Relative Humidity: 28%

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: March 14, 2024

Report Approved by:

A handwritten signature in black ink, appearing to read "Joey Esce".

Joey Esce
Project Engineer
Acoustical Testing

Report Reviewed By:

A handwritten signature in black ink, appearing to read "Brian Cyr".

Brian Cyr
Engineer
Acoustical Testing

Attachments: None