Laboratory Acoustical Test Report

Report No. FC-0083

July 23, 2025

Impact Insulation Class and Sound Transmission Class
ASTM E492, E90

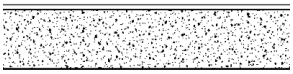
Test Assembly:

Fame Hardwood Acoustiplank
Concrete Slab

IIC- 56
HIIC- 58
LIIC- 75
STC- 57

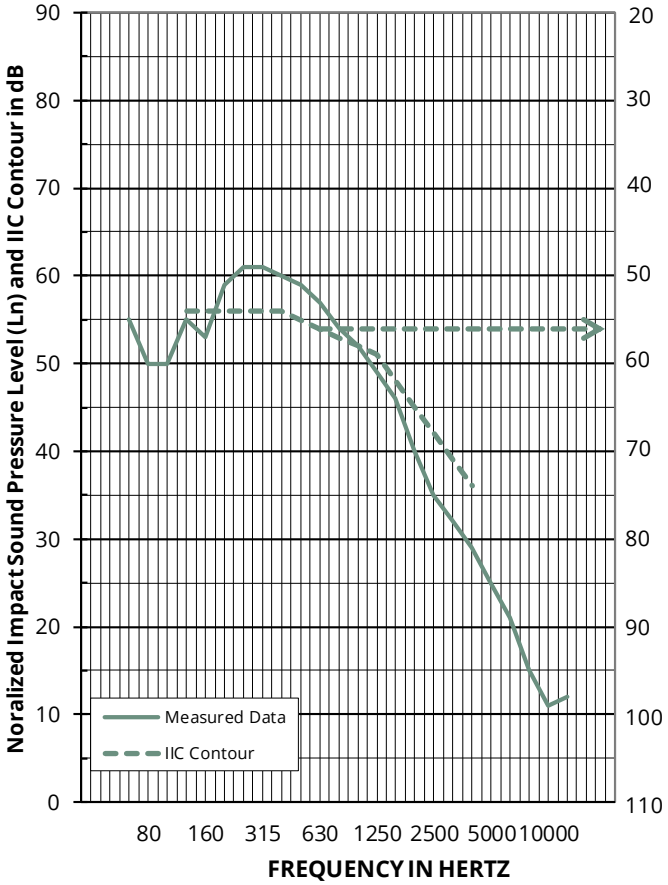
Fame Hardwood
8444 Melrose Avenue
West Hollywood, California 90069

Impact Insulation Class Test FC25-0083: IIC 56



Finish Flooring	17.3mm Fame Hardwood Acoustiplank
Concrete Slab	203.2mm, 5000 PSI

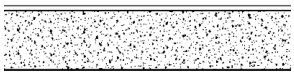
Test Date:	May 4, 2025	
Construction Date:	May 4, 2025	
Test Specimen Area:	11	sq.m.
Receiving Room Volume:	158	cu.m.
Receiving RoomTemperature:	21.9-21.9	degrees C
Receiving Room Relative Humidity:	79-79	percent



Freq	95% Confidence Limit	Ln
50	2.0	55
63	3.7	50
80	2.0	50
100	1.4	55
125	1.0	53
160	1.0	59
200	0.6	61
250	1.1	61
315	0.6	60
400	0.6	59
500	0.3	57
630	0.6	54
800	0.6	52
1000	0.7	49
1250	0.8	46
1600	0.6	40
2000	0.8	35
2500	0.7	32
3150	1.0	29
4000	0.9	25
5000	1.1	21
6300	1.0	15
8000	0.6	11
10000	0.8	12

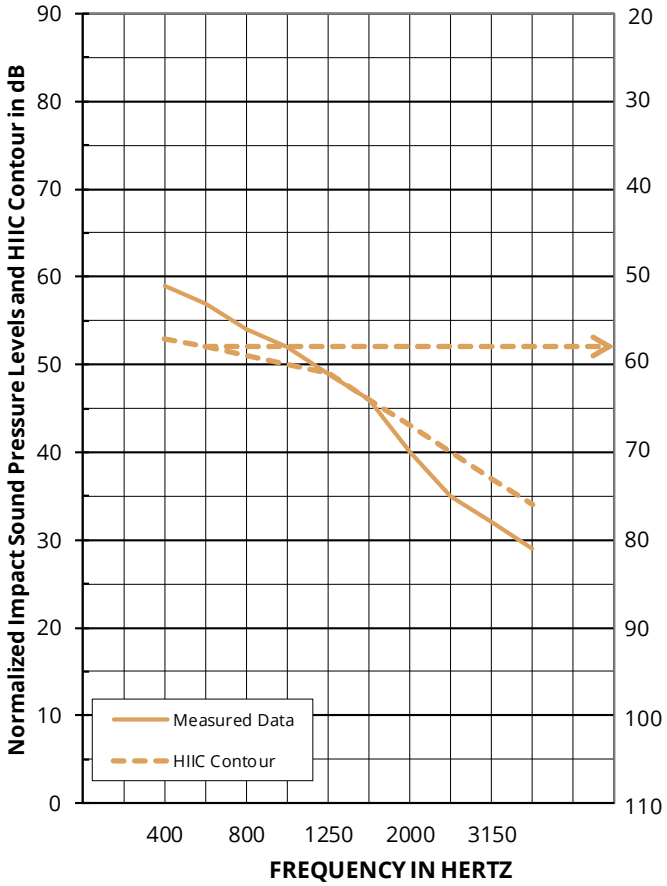
Background Affected

High-frequency Impact Insulation Class Test FC25-0083: HIIC 58



Finish Flooring	17.3mm Fame Hardwood Acoustiplank
Concrete Slab	203.2mm, 5000 PSI

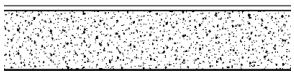
Test Date:	May 4, 2025	
Construction Date:	May 4, 2025	
Test Specimen Area:	11	sq.m.
Receiving Room Volume:	158	cu.m.
Receiving RoomTemperature:	21.9-21.9	degrees C
Receiving Room Relative Humidity:	79-79	percent



Freq	95% Confidence Limit	Ln
400	0.6	59
500	0.3	57
630	0.6	54
800	0.6	52
1000	0.7	49
1250	0.8	46
1600	0.6	40
2000	0.8	35
2500	0.7	32
3150	1.0	29

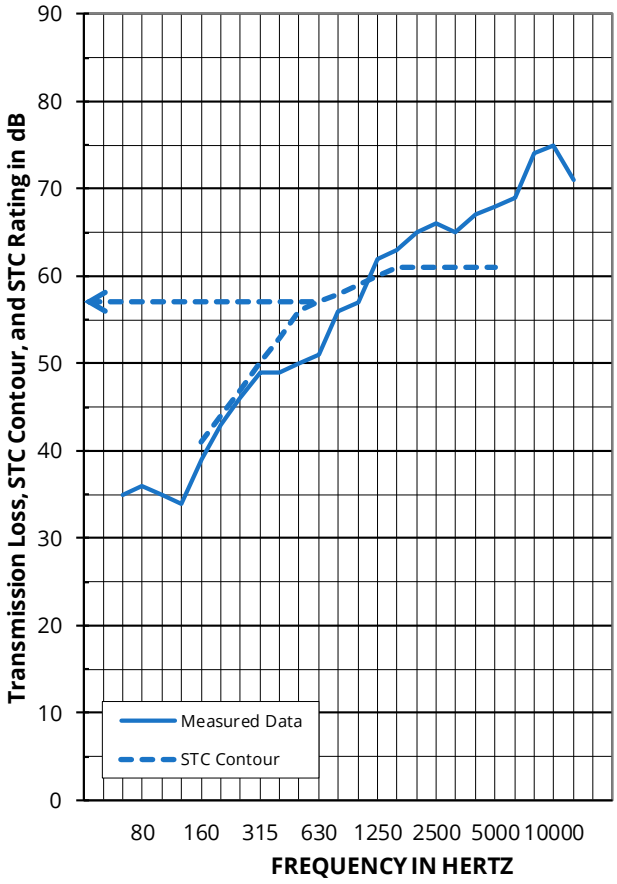
No Ln values were **affected by background noise or flanking.**

Sound Transmission Class Test FC25-0083: STC 57



Finish Flooring	17.3mm Fame Hardwood Acoustiplank
Concrete Slab	203.2mm, 5000 PSI

Test Date:	May 4, 2025	
Construction Date:	May 4, 2025	
Test Specimen Area:	11	sq.m.
Source/Receiving Room Volume:	190/158	cu.m.
Source/Receiving Room Temperature:	21.9/23.6	degrees C
Source/Receiving Room Relative Humidity:	79/79	percent



Freq	TL
50	35
63	36
80	35
100	34
125	39
160	43
200	**46**
250	**49**
315	**49**
400	**50**
500	**51**
630	**56**
800	**57**
1000	62
1250	63
1600	65
2000	66
2500	65
3150	67
4000	68
5000	69
6300	74
8000	75
10000	71

Background Affected
Flanking Affected

1.0 EXECUTIVE SUMMARY

This report summarizes laboratory acoustic testing contracted by Westside Acoustics and Vibration Engineering (Westside) to be completed for Fame Hardwood on Fame Hardwood Acoustiplank flooring. The scope of the acoustical testing is for Impact Insulation Class (IIC), Low-frequency Impact Insulation Class (LIIC), High-frequency Impact Insulation Class (HIIC), and Sound Transmission Class (STC), in accordance with ASTM standards E492, E90.

Testing was conducted on May 4, 2025. Details of all tests performed are contained in this report. Testing was completed in strict accordance with the following standards:

- ASTM E90, "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions"
- ASTM E413, “Classification for Rating Sound Insulation”
- ASTM E492, "Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine”
- ASTM E989, “Standard Classification for Determination of Impact Insulation Class (IIC)”
- ASTM E2235, “Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods”
- ASTM E3207, “Standard Classification for Determination of Low-frequency Impact Noise Ratings.”
- ASTM E3222, “Standard Classification for Determination of High-frequency Impact Sound Ratings.”

1.1 Equipment

A summary of the equipment used for this test, including descriptions and accredited calibration dates, is included in the Appendix.

1.2 Accreditation and Reporting

This report may not be reproduced in part without prior written consent from Westside. Testing was performed at an IAS-accredited test facility. The full report and other additional information, including detailed test procedures, flanking limit data, repeatability results, and reference specimen testing, is available upon request.

Westside provides no warranties, expressed or implied, regarding the structural integrity or suitability of these assemblies for a specific installation. Any marketing or promotional use of this report or its data must not imply product certification or endorsement by Westside, NVLAP, NIST or the U.S. Government.

2.0 TEST PROCEDURES

2.1 Impact Insulation Tests

All tests were conducted in accordance with ASTM E492, "Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine." The IIC is a single-number rating derived from the Impact Sound Pressure Level in accordance with ASTM E989, "Standard Classification for Determination of Impact Insulation Class (IIC)." Results are presented above.

95% confidence intervals represent uncertainty for microphone averaging, not tapping positions.

2.2 High-frequency Impact Insulation Class Tests

The HIIC is the High-frequency Impact Insulation Class and is meant to assess the high-frequency impact noise on a floor-ceiling assembly. The higher the value, the better the floor, meaning less noise from high-frequency impacts in the space below.

All tests were conducted in accordance with the requirements of ASTM E492, "Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine," using ASTM E3222 "Standard Classification for Determination of High-frequency Impact Sound Ratings" to calculate the High-frequency Impact Insulation Class (HIIC). Results are presented above.

2.3 Low-frequency Impact Insulation Class Tests

The LIIC is the Low-frequency Impact Insulation Class and is meant to assess the low-frequency impact noise on a floor-ceiling assembly. The higher the value, the better the floor, meaning less noise from low-frequency impacts in the space below.

All tests were conducted in accordance with the requirements of ASTM E492, "Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine," using ASTM E3207 "Standard Classification for Determination of Low-frequency Impact Noise Ratings" to calculate the Low-frequency Impact Insulation Class (LIIC).

Measured result is LIIC-75.

2.4 Transmission Loss Tests

All tests were conducted in accordance with ASTM E90, "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions," using the single-direction method. STC is a single-number rating derived from measured values of Sound Transmission Loss through a test specimen in accordance with ASTM E413, "Classification for Rating Sound Insulation." Results are presented above.

3.0 TEST ASSEMBLY

3.1 Assembly Description

The test assembly consists of:

- Fame Hardwood Acoustiplank
- 8-inch thick concrete slab (5000 PSI)

The total mass of the floor-ceiling assembly was 5898 kg with an area density of 537 kg/m^2.

Table 1 – Properties of assembly elements

Product/Element	Thickness	Dimensions	Area	Area Density
Fame Hardwood Acoustiplank	17 mm	Varied x 127 mm	10.98 m^2	12.34 kg/m^2
Concrete Slab	203 mm	3023mm x 3632mm	10.98 m^2	524.71 kg/m^2

3.2 Installation

The assembly elements were installed in the following manner:

- Finish flooring: Loose-laid.
- Concrete slab: Installed in a test frame flush to the source room. Mats of #5 reinforcing bars were placed 1 inch from both the top and bottom of the slab, with bars spaced on 305 mm centers in both directions. The test frame was isolated from the structure with a dense neoprene gasket. This slab was an existing assembly, reused. No noticeable shrinkage or cracking was visible.

The assembly was constructed on May 4, 2025.

Please feel free to contact us with any questions.

Sincerely,
Westside Acoustics & Vibration Engineering

John LoVerde, *FASA*
Acoustician

APPENDIX

Test Equipment and Photos

Table 2 – Laboratory testing equipment and room volumes

Instrument	Manufacturer	Model	Description	Serial Number	Calibration Date
2-CHANNEL ANALOG INPUT	NATIONAL INSTRUMENTS	NI 9250	2-CHANNEL ANALOG INPUT	INT02586	03/24
2-CHANNEL ANALOG INPUT	NATIONAL INSTRUMENTS	NI 9250	2-CHANNEL ANALOG INPUT	INT02587	03/24
2-CHANNEL ANALOG INPUT	NATIONAL INSTRUMENTS	NI 9250	2-CHANNEL ANALOG INPUT	INT02608	03/24
2-CHANNEL ANALOG INPUT	NATIONAL INSTRUMENTS	NI 9250	2-CHANNEL ANALOG INPUT	INT02609	03/24
2-CHANNEL ANALOG INPUT	NATIONAL INSTRUMENTS	NI 9250	2-CHANNEL ANALOG INPUT	INT02610	03/24
2-CHANNEL ANALOG INPUT	NATIONAL INSTRUMENTS	NI 9250	2-CHANNEL ANALOG INPUT	INT02612	03/24
2-CHANNEL ANALOG OUTPUT	NATIONAL INSTRUMENTS	NI 9260	2-CHANNEL ANALOG OUTPUT	INT02611	N/A
MICROPHONE CALIBRATOR	NORSONIC	34093	ACOUSTICAL CALIBRATOR	65105	08/24
RECEIVE ROOM MICROPHONE	PCB PIEZOTRONICS	378C20	MICROPHONE AND PREAMPLIFIER	INT03739	10/24
RECEIVE ROOM MICROPHONE	PCB PIEZOTRONICS	378B20	MICROPHONE AND PREAMPLIFIER	INT02912	03/25
RECEIVE ROOM MICROPHONE	PCB PIEZOTRONICS	378B20	MICROPHONE AND PREAMPLIFIER	64902	09/24
RECEIVE ROOM MICROPHONE	PCB PIEZOTRONICS	378B20	MICROPHONE AND PREAMPLIFIER	64903	07/24
RECEIVE ROOM MICROPHONE	PCB PIEZOTRONICS	378B20	MICROPHONE AND PREAMPLIFIER	INT03720	10/24
RECEIVE ROOM ENVIRONMENTAL INDICATOR	COMET	T7510	TEMPERATURE AND HUMIDITY TRANSMITTER	63810	09/24
				63811	09/24
SOURCE ROOM MICROPHONE	PCB PIEZOTRONICS	378C20	MICROPHONE AND PREAMPLIFIER	63745	10/24
SOURCE ROOM MICROPHONE	PCB PIEZOTRONICS	378C20	MICROPHONE AND PREAMPLIFIER	64340	09/24
SOURCE ROOM MICROPHONE	PCB PIEZOTRONICS	378C20	MICROPHONE AND PREAMPLIFIER	INT03738	10/24
SOURCE ROOM MICROPHONE	PCB PIEZOTRONICS	378C20	MICROPHONE AND PREAMPLIFIER	64909	07/24
SOURCE ROOM MICROPHONE	PCB ELECTRONICS	378C20	MICROPHONE AND PREAMPLIFIER	64911	09/24
SOURCE ROOM ENVIRONMENTAL INDICATOR	COMET	T7510	TEMPERATURE AND HUMIDITY TRANSMITTER	63812	11/24
TAPPING MACHINE	NORSONIC	NOR277	TAPPING MACHINE	INT03333	02/25
Test Chamber Receive Room Volume			159 m³		
Test Chamber Source Room Volume			190 m³		

Photo 1: *Installed finish flooring, observed from Source Chamber*

Photo 2: *Bottom of concrete slab, observed from Receive Chamber*