

# ACOUSTIK ACOUSTICAL PERFORMANCE TEST REPORT

## SCOPE OF WORK

ASTM E90 AND ASTM E492 TESTING ON 8.4 MM ENGINEERED WOOD OVER 2 MM  
ACOUSTIK RUBBER UNDERLAYMENT

## SPECIMEN TYPE

Open Web Truss - 457 mm

## REPORT NUMBER

R5380.03-113-11-R0

## TEST DATE

07/26/24

## ISSUE DATE

08/27/24

## RECORD RETENTION END

07/26/28

## PAGES

15

## DOCUMENT CONTROL

RTTDS-R-AMER-Test-2844 (03/23/22)

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## TEST REPORT FOR ACOUSTIK

Report No.: R5380.03-113-11-R0

Date: 08/27/24

### REPORT RENDERED BY MANUFACTURER FOR ACOUSTICAL SURFACES INC.

123 Columbia Court N.

Chaska, Minnesota 55318

## SECTION 1

### SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by the client to perform testing in accordance with ASTM E90 AND ASTM E492 on 8.4 mm Engineered Wood over 2 mm ACOUSTIK Rubber Underlayment. Results obtained are tested values and were secured by using the designated test methods. Testing was conducted in the VT test chambers at Intertek B&C located in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

## SECTION 2

### SUMMARY OF TEST RESULTS

|                      |                                                               |
|----------------------|---------------------------------------------------------------|
| <b>DATA FILE NO.</b> | R5380.03                                                      |
| <b>SERIES/MODEL:</b> | 8.4 mm Engineered Wood over 2 mm ACOUSTIK Rubber Underlayment |
| <b>STC</b>           | 60                                                            |
| <b>IIC</b>           | 57                                                            |
| <b>HIIC</b>          | 63                                                            |

**COMPLETED BY:** Corey S. Kohler  
Technician - Acoustical  
**TITLE:** Testing

**SIGNATURE:**   
Digitally signed by: Corey Kohler

**DATE:** 08/27/24

**REVIEWED BY:** Daniel B. Mohler  
Project Manager - Acoustical  
**TITLE:** Testing

**SIGNATURE:**   
Digitally signed by: Daniel Mohler

**DATE:** 08/27/24

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**TEST REPORT FOR ACOUSTIK**

Report No.: R5380.03-113-11-R0

Date: 08/27/24

**SECTION 3****TEST METHODS**

The specimen was evaluated in accordance with the following:

**ASTM E90-09 (2016)**, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*

**ASTM E413-22**, *Classification for Rating Sound Insulation*

**ASTM E492-22**, *Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine*

**ASTM E989-21**, *Classification for Determination of Impact Insulation Class (IIC)*

**ASTM E2235-04 (2020)**, *Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods*

**ASTM E3207-21**, *Standard Classification for Determination of Low-Frequency Impact Sound Ratings*

**ASTM E3222-20**, *Standard Classification for Determination of High-Frequency Impact Sound Ratings*

**SECTION 4****MATERIAL SOURCE/INSTALLATION**

The full test specimen was assembled on the day of testing by B&C. All materials provided by the client were installed on an existing B&C assembly (Open Web Truss - 457 mm) utilizing B&C-supplied materials. The assembly was installed in a steel test frame which was installed into the opening between the source and receive rooms in the test chamber. The test frame was isolated from the structure with dense neoprene gasket.

The total weight of the floor/ceiling assembly was 904.6 kg. B&C will store samples of the test specimen for four years. Photographs of the test specimen are included in the report. A drawing of the test specimen is included in the report.

B&C will service this report for the entire test record retention period. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by B&C for the entire test record retention period.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

## TEST REPORT FOR ACOUSTIK

Report No.: R5380.03-113-11-R0

Date: 08/27/24

### SECTION 5 EQUIPMENT

| INSTRUMENT                           | MANUFACTURER         | MODEL   | DESCRIPTION                          | ASSET #  | CAL DATE |   |
|--------------------------------------|----------------------|---------|--------------------------------------|----------|----------|---|
| 2-Channel Analog Input               | National Instruments | NI 9250 | 2-Channel Analog Input               | INT02672 | 10/23    | * |
| 2-Channel Analog Input               | National Instruments | NI 9250 | 2-Channel Analog Input               | INT02673 | 10/23    | * |
| 2-Channel Analog Input               | National Instruments | NI 9250 | 2-Channel Analog Input               | INT02674 | 10/23    | * |
| 2-Channel Analog Input               | National Instruments | NI 9250 | 2-Channel Analog Input               | INT02675 | 10/23    | * |
| 2-Channel Analog Input               | National Instruments | NI 9250 | 2-Channel Analog Input               | INT02676 | 10/23    | * |
| 2-Channel Analog Input               | National Instruments | NI 9250 | 2-Channel Analog Input               | INT02677 | 10/23    | * |
| 2-Channel Analog Output              | National Instruments | NI 9260 | 2-Channel Analog Output              | INT02611 | N/A      | * |
| Microphone Calibrator                | Norsonic             | 34093   | Acoustical Calibrator                | 65105    | 09/23    |   |
| Receive Room Microphone              | PCB Piezotronics     | 378C20  | Microphone and Preamplifier          | 64908    | 01/24    |   |
| Receive Room Microphone              | PCB Piezotronics     | 378B20  | Microphone and Preamplifier          | 64909    | 07/24    |   |
| Receive Room Microphone              | PCB Piezotronics     | 378B20  | Microphone and Preamplifier          | INT02912 | 03/24    |   |
| Receive Room Microphone              | PCB Piezotronics     | 378B20  | Microphone and Preamplifier          | 64902    | 09/23    |   |
| Receive Room Microphone              | PCB Piezotronics     | 378B20  | Microphone and Preamplifier          | 64910    | 02/24    |   |
| Receive Room Environmental Indicator | Comet                | T7510   | Temperature and Humidity Transmitter | 63810    | 10/23    |   |
|                                      |                      |         |                                      | 63811    | 10/23    |   |
| Source Room Microphone               | PCB Piezotronics     | 378C20  | Microphone and Preamplifier          | 64911    | 09/23    |   |
| Source Room Microphone               | PCB Piezotronics     | 378C20  | Microphone and Preamplifier          | 64907    | 01/24    |   |
| Source Room Microphone               | PCB Piezotronics     | 378C20  | Microphone and Preamplifier          | INT02256 | 01/24    |   |
| Source Room Microphone               | PCB Piezotronics     | 378C20  | Microphone and Preamplifier          | INT00235 | 06/24    |   |
| Source Room Microphone               | PCB Electronics      | 378C20  | Microphone and Preamplifier          | INT00236 | 06/24    |   |
| Source Room Environmental Indicator  | Comet                | T7510   | Temperature and Humidity Transmitter | 63812    | 11/23    |   |
| Tapping Machine                      | Norsonic             | Nor277  | Tapping Machine                      | INT03333 | 02/24    |   |

\* The calibration frequency for this equipment is every two years per the manufacturer's recommendation.

|                        |                       |
|------------------------|-----------------------|
| VT RECEIVE ROOM VOLUME | 155.77 m <sup>3</sup> |
| VT SOURCE ROOM VOLUME  | 190 m <sup>3</sup>    |

### SECTION 6 LIST OF OFFICIAL OBSERVERS

| NAME              | COMPANY      |
|-------------------|--------------|
| Michael A. Unnone | Intertek B&C |
| Daniel B. Mohler  | Intertek B&C |

**TEST REPORT FOR ACOUSTIK**

Report No.: R5380.03-113-11-R0

Date: 08/27/24

**SECTION 7****TEST PROCEDURE**

The microphones were calibrated before conducting the tests. The air temperature and relative humidity conditions were monitored and recorded during all measurements. The average temperature and humidity of both the source and receive rooms are listed in Sections 10 and 11. The maximum and minimum temperatures and humidities of the receive room from the duration of the test are listed in Sections 12 and 13.

The airborne transmission loss test was conducted in accordance with the ASTM E90 test method using the single direction method. Two background noise sound pressure level and five sound absorption measurements were conducted at each of five microphone positions. Two sound pressure level measurements were made simultaneously in both rooms, at each of five microphone positions.

The impact sound transmission test was conducted in accordance with the ASTM E492 test method. Two background noise sound pressure level, two sound pressure level measurements with the tapping machine operating at each position specified by ASTM E492, and five sound absorption measurements were conducted at each of five microphone positions.

Detailed test procedures, data for flanking limit tests, repeatability measurements, and reference specimen tests are available upon request.

**SECTION 8****TEST CALCULATIONS**

The STC (Sound Transmission Class), IIC (Impact Insulation Class), and HIIC (High-Frequency Impact Insulation Class) ratings were calculated in accordance with ASTM E413, ASTM E989, and ASTM E3222, respectively.

## TEST REPORT FOR ACOUSTIK

Report No.: R5380.03-113-11-R0

Date: 08/27/24

### SECTION 9

#### TEST SPECIMEN DESCRIPTION

| MATERIAL                        | DIMENSIONS (mm)                                                                                                                                                                                                 | THICKNESS (mm) | MANUFACTURER AND SERIES                   | QUANTITY             | AVERAGE WEIGHT          |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------|----------------------|-------------------------|
| Engineered Wood                 | 127 by Varied                                                                                                                                                                                                   | 8.4            | Shaw                                      | 10.98 m <sup>2</sup> | 7.32 kg/m <sup>2</sup>  |
|                                 | Note: Loose laid                                                                                                                                                                                                |                |                                           |                      |                         |
| Rubber Underlayment             | 1219.2 by 3023                                                                                                                                                                                                  | 2.0            | ACOUSTIK                                  | 10.98 m <sup>2</sup> | 1.66 kg/m <sup>2</sup>  |
|                                 | Note: Loose laid                                                                                                                                                                                                |                |                                           |                      |                         |
| Gypsum Concrete                 | 3023 by 3632                                                                                                                                                                                                    | 19.1           | USG Levelrock® Brand 2500                 | 10.98 m <sup>2</sup> | 36.62 kg/m <sup>2</sup> |
|                                 | Note: Poured directly onto the subfloor underlayment, cured a minimum of 14 days. The gypsum panel had a closed cell foam perimeter isolation. No noticeable shrinkage or cracking was visible on the specimen. |                |                                           |                      |                         |
| Oriented Strand Board Sheathing | 1219 by 2438                                                                                                                                                                                                    | 18.8           | N/A                                       | 10.98 m <sup>2</sup> | 11.67 kg/m <sup>2</sup> |
|                                 | Note: Adhered to the floor trusses with Loctite PL 400 Subfloor adhesive. Fastened with 9D nails on 203 mm centers along perimeter and 305 mm centers along trusses.                                            |                |                                           |                      |                         |
| Fiberglass Insulation           | 520.7 by 3023                                                                                                                                                                                                   | 88.9           | Johns Manville Unfaced R-13               | 10.98 m <sup>2</sup> | 1.32 kg/m <sup>2</sup>  |
|                                 | Note: Installed in the cavity between trusses, stapled flush with the subfloor                                                                                                                                  |                |                                           |                      |                         |
| Open Web Truss                  | 88.9 by 2933.7                                                                                                                                                                                                  | 457.2          | York PB Truss L/360                       | 7 trusses            | 19.05 kg/truss          |
|                                 | Note: Installed on 610 mm centers using JUS414 hanger brackets.                                                                                                                                                 |                |                                           |                      |                         |
| Resilient Channel               | 68.6 by 3454.4                                                                                                                                                                                                  | 12.7           | ClarkDietrich RC Deluxe™                  | 31.05 lin m          | 0.33 kg/m               |
|                                 | Note: Installed on 305 mm centers perpendicular to the trusses. The measured thickness of the metal was 0.7 mm.                                                                                                 |                |                                           |                      |                         |
| Gypsum Panel                    | 1219 by 3023                                                                                                                                                                                                    | 15.9           | National Gypsum Gold Bond® Fire-Shield C™ | 10.98 m <sup>2</sup> | 10.74 kg/m <sup>2</sup> |
|                                 | Note: Fastened to the channels on 305 mm centers with 25.4 mm Type S bugle head screws. The seams of the gypsum panels were sealed with Pecora AC-20 FTR caulk and covered with pressure sensitive tape.        |                |                                           |                      |                         |

# TEST REPORT FOR ACOUSTIK

Report No.: R5380.03-113-11-R0

Date: 08/27/24

## SECTION 10

### TEST RESULTS - AIRBORNE SOUND TRANSMISSION LOSS



|               |                                                                                                                                                                                                                                                                                                                                                                                        |                  |        |                 |        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------|-----------------|--------|
| TEST DATE     | 7/26/2024                                                                                                                                                                                                                                                                                                                                                                              |                  |        |                 |        |
| DATA FILE NO. | R5380.03                                                                                                                                                                                                                                                                                                                                                                               |                  |        |                 |        |
| CLIENT        | Acoustical Surfaces, Inc.                                                                                                                                                                                                                                                                                                                                                              |                  |        |                 |        |
| DESCRIPTION   | 8.4 mm Shaw Engineered Wood, 2 mm ACOUSTIK Rubber Underlayment, 19.05 mm USG Levelock® Brand 2500 Gypsum Concrete, 18.8 mm Oriented Strand Board Sheathing, 88.9 mm Johns Manville Unfaced R-13 Fiberglass Insulation, 457.2 mm York PB Truss L/360 Open Web Truss, 12.7 mm ClarkDietrich RC Deluxe™ Resilient Channel, 15.9 mm National Gypsum Gold Bond® Fire-Shield C™ Gypsum Panel |                  |        |                 |        |
| SPECIMEN AREA | 10.98 m²                                                                                                                                                                                                                                                                                                                                                                               | Receive Temp.    | 25.3°C | Source Temp.    | 25.4°C |
| TECHNICIAN    | MAU                                                                                                                                                                                                                                                                                                                                                                                    | Receive Humidity | 62%    | Source Humidity | 62%    |

| FREQ<br>(Hz) | BACKGROUND<br>SPL<br>(dB) | ABSORPTION<br>m²           | SOURCE<br>SPL<br>(dB) | RECEIVE<br>SPL<br>(dB) | SPECIMEN<br>TL<br>(dB) | 95%<br>SAMPLING<br>LIMIT | NUMBER<br>OF<br>DEFICIENCIES |
|--------------|---------------------------|----------------------------|-----------------------|------------------------|------------------------|--------------------------|------------------------------|
| 50           | 35.2                      | 28.0                       | 93                    | 59                     | 32                     | 3.1                      | -                            |
| 63           | 36.4                      | 20.4                       | 93                    | 57                     | 34                     | 4.8                      | -                            |
| 80           | 32.7                      | 15.1                       | 89                    | 59                     | 29                     | 3.5                      | -                            |
| 100          | 26.8                      | 7.9                        | 86                    | 55                     | 34                     | 1.9                      | -                            |
| 125          | 25.7                      | 8.7                        | 89                    | 51                     | 41                     | 2.0                      | 3                            |
| 160          | 21.8                      | 8.0                        | 90                    | 51                     | 42                     | 1.2                      | 5                            |
| 200          | 18.4                      | 9.3                        | 90                    | 43                     | 49                     | 1.5                      | 1                            |
| 250          | 14.4                      | 8.6                        | 92                    | 44                     | 51                     | 1.1                      | 2                            |
| 315          | 16.6                      | 8.3                        | 97                    | 46                     | 54                     | 1.0                      | 2                            |
| 400          | 15.4                      | 8.2                        | 96                    | 43                     | 55                     | 0.9                      | 4                            |
| 500          | 13.3                      | 7.5                        | 94                    | 40                     | 56                     | 0.6                      | 4                            |
| 630          | 16.7                      | 7.3                        | 96                    | 41                     | 58                     | 0.9                      | 3                            |
| 800          | 16.3                      | 7.0                        | 96                    | 37                     | 62                     | 0.5                      | 0                            |
| 1000         | 16.3                      | 7.3                        | 96                    | 34                     | 64                     | 0.4                      | 0                            |
| 1250         | 15.4                      | 7.3                        | 96                    | 32                     | 67                     | 0.5                      | 0                            |
| 1600         | 12.8                      | 7.3                        | 96                    | 30                     | 68                     | 0.5                      | 0                            |
| 2000         | 9.8                       | 7.9                        | 96                    | 29                     | 69                     | 0.5                      | 0                            |
| 2500         | 8.0                       | 8.9                        | 94                    | 27                     | 69                     | 0.5                      | 0                            |
| 3150         | 7.4                       | 8.7                        | 92                    | 23                     | 70                     | 0.5                      | 0                            |
| 4000         | 7.8                       | 12.8                       | 93                    | 21                     | 73                     | 0.7                      | 0                            |
| 5000         | 8.5                       | 16.3                       | 93                    | 19                     | 73                     | 0.7                      | -                            |
| 6300         | 9.2                       | 14.3                       | 87                    | 9                      | 78                     | 0.8                      | -                            |
| 8000         | 9.9                       | 23.3                       | 87                    | 9                      | 75                     | 0.9                      | -                            |
| 10000        | 10.5                      | 23.3                       | 81                    | 9                      | 69                     | 1.2                      | -                            |
| STC Rating   | 60                        | (Sound Transmission Class) |                       |                        | Sum of Deficiencies    | 24                       |                              |

#### Notes:

- 1) Receive Room levels less than 5 dB above the Background levels are highlighted in yellow.
- 2) Specimen TL levels listed in red are potentially limited by the laboratory flanking limit.
- 3) Specimen TL levels listed in blue indicate the lower limit of the transmission loss.
- 4) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

**TEST REPORT FOR ACOUSTIK**

Report No.: R5380.03-113-11-R0

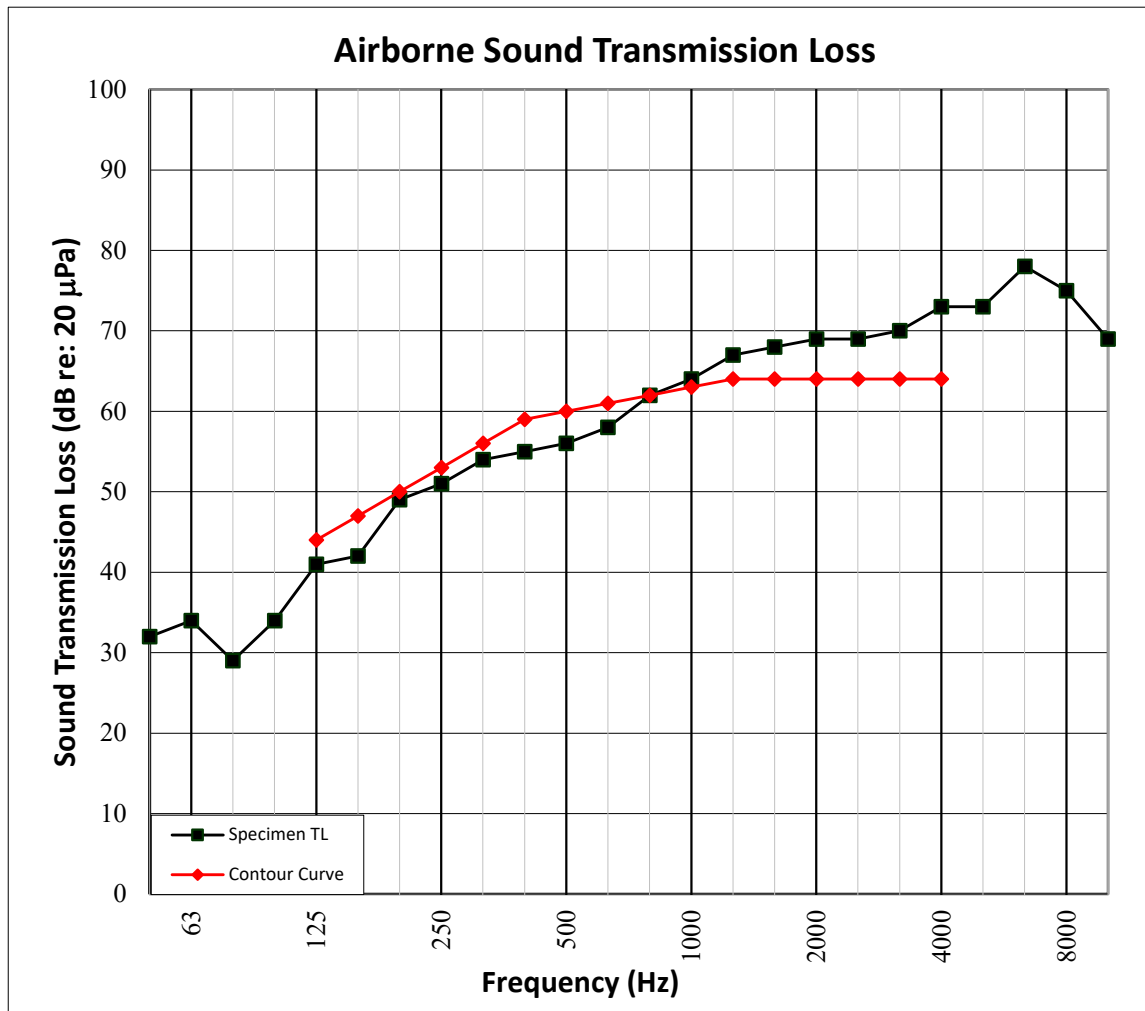
Date: 08/27/24

**SECTION 11**

**TEST RESULTS - AIRBORNE SOUND TRANSMISSION LOSS GRAPH**



|                      |                                                                                                                                                                                                                                                                                                                                                                                         |                         |        |                        |        |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------|------------------------|--------|
| <b>TEST DATE</b>     | 7/26/2024                                                                                                                                                                                                                                                                                                                                                                               |                         |        |                        |        |
| <b>DATA FILE NO.</b> | R5380.03                                                                                                                                                                                                                                                                                                                                                                                |                         |        |                        |        |
| <b>CLIENT</b>        | Acoustical Surfaces, Inc.                                                                                                                                                                                                                                                                                                                                                               |                         |        |                        |        |
| <b>DESCRIPTION</b>   | 8.4 mm Shaw Engineered Wood, 2 mm ACOUSTIK Rubber Underlayment, 19.05 mm USG Levelrock® Brand 2500 Gypsum Concrete, 18.8 mm Oriented Strand Board Sheathing, 88.9 mm Johns Manville Unfaced R-13 Fiberglass Insulation, 457.2 mm York PB Truss L/360 Open Web Truss, 12.7 mm ClarkDietrich RC Deluxe™ Resilient Channel, 15.9 mm National Gypsum Gold Bond® Fire-Shield C™ Gypsum Panel |                         |        |                        |        |
| <b>SPECIMEN AREA</b> | 10.98 m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                    | <b>Receive Temp.</b>    | 25.3°C | <b>Source Temp.</b>    | 25.4°C |
| <b>TECHNICIAN</b>    | MAU                                                                                                                                                                                                                                                                                                                                                                                     | <b>Receive Humidity</b> | 62%    | <b>Source Humidity</b> | 62%    |



**TEST REPORT FOR ACOUSTIK**

Report No.: R5380.03-113-11-R0

Date: 08/27/24

**SECTION 12**

**TEST RESULTS - IMPACT SOUND TRANSMISSION**



|                      |                                                                                                                                                                                                                                                                                                                                                                                        |                      |        |                      |        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------|----------------------|--------|
| <b>TEST DATE</b>     | 7/26/2024                                                                                                                                                                                                                                                                                                                                                                              |                      |        |                      |        |
| <b>DATA FILE NO.</b> | R5380.03                                                                                                                                                                                                                                                                                                                                                                               |                      |        |                      |        |
| <b>CLIENT</b>        | Acoustical Surfaces, Inc.                                                                                                                                                                                                                                                                                                                                                              |                      |        |                      |        |
| <b>DESCRIPTION</b>   | 8.4 mm Shaw Engineered Wood, 2 mm ACOUSTIK Rubber Underlayment, 19.05 mm USG Levelock® Brand 2500 Gypsum Concrete, 18.8 mm Oriented Strand Board Sheathing, 88.9 mm Johns Manville Unfaced R-13 Fiberglass Insulation, 457.2 mm York PB Truss L/360 Open Web Truss, 12.7 mm ClarkDietrich RC Deluxe™ Resilient Channel, 15.9 mm National Gypsum Gold Bond® Fire-Shield C™ Gypsum Panel |                      |        |                      |        |
| <b>SPECIMEN AREA</b> | 10.98 m²                                                                                                                                                                                                                                                                                                                                                                               | <b>Maximum Temp.</b> | 25.3°C | <b>Minimum Temp.</b> | 25.3°C |
| <b>TECHNICIAN</b>    | MAU                                                                                                                                                                                                                                                                                                                                                                                    | <b>Max. Humidity</b> | 63%    | <b>Min. Humidity</b> | 61%    |

| FREQ<br>(Hz)      | BACKGROUND<br>SPL<br>(dB) | ABSORPTION<br>m²                 | NORMALIZED IMPACT SPL<br>(dB) | 95%<br>SAMPLING<br>LIMIT   | NUMBER<br>OF<br>DEFICIENCIES |
|-------------------|---------------------------|----------------------------------|-------------------------------|----------------------------|------------------------------|
| 50                | 38.8                      | 29.9                             | 75                            | 2.8                        | -                            |
| 63                | 40.8                      | 23.1                             | 64                            | 2.2                        | -                            |
| 80                | 36.1                      | 14.2                             | 65                            | 1.3                        | -                            |
| 100               | 27.2                      | 8.0                              | 61                            | 1.4                        | 6                            |
| 125               | 32.4                      | 8.7                              | 60                            | 1.0                        | 5                            |
| 160               | 29.4                      | 8.3                              | 62                            | 0.4                        | 7                            |
| 200               | 20.8                      | 9.6                              | 60                            | 0.9                        | 5                            |
| 250               | 18.3                      | 8.9                              | 57                            | 0.5                        | 2                            |
| 315               | 22.4                      | 8.4                              | 57                            | 0.5                        | 2                            |
| 400               | 22.7                      | 8.6                              | 56                            | 0.4                        | 2                            |
| 500               | 19.9                      | 7.3                              | 52                            | 0.4                        | 0                            |
| 630               | 22.4                      | 7.4                              | 47                            | 0.4                        | 0                            |
| 800               | 20.5                      | 7.1                              | 44                            | 0.5                        | 0                            |
| 1000              | 19.8                      | 7.4                              | 40                            | 0.4                        | 0                            |
| 1250              | 19.2                      | 7.4                              | 37                            | 0.3                        | 0                            |
| 1600              | 17.6                      | 7.4                              | 34                            | 0.5                        | 0                            |
| 2000              | 14.7                      | 7.9                              | 35                            | 0.7                        | 0                            |
| 2500              | 11.4                      | 8.8                              | 35                            | 0.7                        | 0                            |
| 3150              | 9.7                       | 8.7                              | 28                            | 0.7                        | 0                            |
| 4000              | 8.7                       | 12.8                             | 22                            | 0.8                        | -                            |
| 5000              | 8.6                       | 16.3                             | 17                            | 1.0                        | -                            |
| 6300              | 9.2                       | 14.3                             | 11                            | 0.6                        | -                            |
| 8000              | 9.9                       | 23.3                             | 12                            | 0.5                        | -                            |
| 10000             | 10.6                      | 23.3                             | 12                            | 0.4                        | -                            |
| <b>IIC Rating</b> | <b>57</b>                 | <i>(Impact Insulation Class)</i> |                               | <b>Sum of Deficiencies</b> | <b>29</b>                    |

**Notes:** Receive Room levels less than 5 dB above the Background levels are highlighted in yellow.

**TEST REPORT FOR ACOUSTIK**

Report No.: R5380.03-113-11-R0

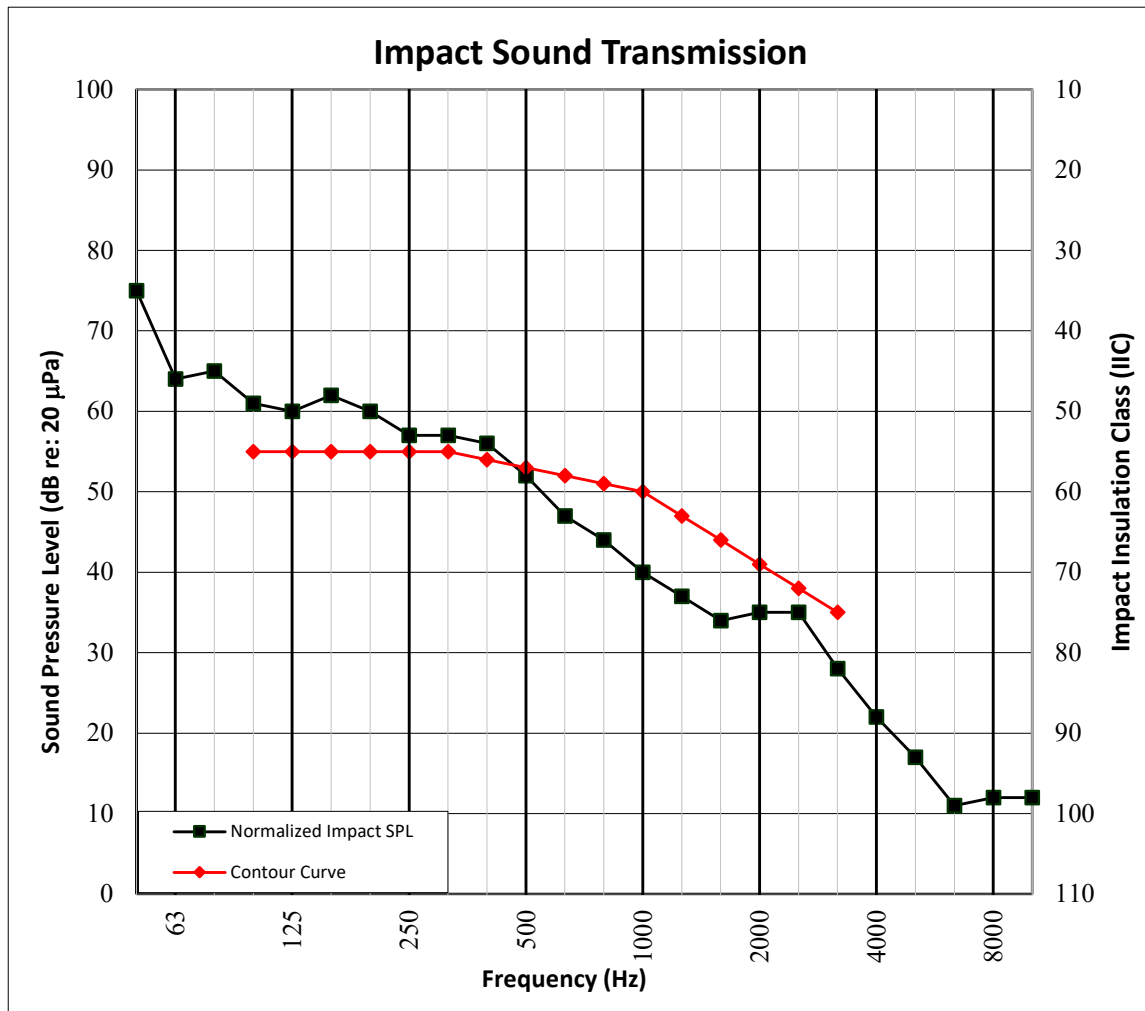
Date: 08/27/24

**SECTION 13**

**TEST RESULTS - IMPACT SOUND TRANSMISSION GRAPH**



|                      |                                                                                                                                                                                                                                                                                                                                                                                         |                      |        |                      |        |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------|----------------------|--------|
| <b>TEST DATE</b>     | 7/26/2024                                                                                                                                                                                                                                                                                                                                                                               |                      |        |                      |        |
| <b>DATA FILE NO.</b> | R5380.03                                                                                                                                                                                                                                                                                                                                                                                |                      |        |                      |        |
| <b>CLIENT</b>        | Acoustical Surfaces, Inc.                                                                                                                                                                                                                                                                                                                                                               |                      |        |                      |        |
| <b>DESCRIPTION</b>   | 8.4 mm Shaw Engineered Wood, 2 mm ACOUSTIK Rubber Underlayment, 19.05 mm USG Levelrock® Brand 2500 Gypsum Concrete, 18.8 mm Oriented Strand Board Sheathing, 88.9 mm Johns Manville Unfaced R-13 Fiberglass Insulation, 457.2 mm York PB Truss L/360 Open Web Truss, 12.7 mm ClarkDietrich RC Deluxe™ Resilient Channel, 15.9 mm National Gypsum Gold Bond® Fire-Shield C™ Gypsum Panel |                      |        |                      |        |
| <b>SPECIMEN AREA</b> | 10.98 m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                    | <b>Maximum Temp.</b> | 25.3°C | <b>Minimum Temp.</b> | 25.3°C |
| <b>TECHNICIAN</b>    | MAU                                                                                                                                                                                                                                                                                                                                                                                     | <b>Max. Humidity</b> | 63%    | <b>Min. Humidity</b> | 61%    |



## TEST REPORT FOR ACOUSTIK

Report No.: R5380.03-113-11-R0

Date: 08/27/24

### SECTION 14

#### TEST RESULTS - HIGH-FREQUENCY IMPACT SOUND TRANSMISSION



|               |                                                                                                                                                                                                                                                                                                                                                                                         |               |        |               |        |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------|---------------|--------|
| TEST DATE     | 7/26/2024                                                                                                                                                                                                                                                                                                                                                                               |               |        |               |        |
| DATA FILE NO. | R5380.03                                                                                                                                                                                                                                                                                                                                                                                |               |        |               |        |
| CLIENT        | Acoustical Surfaces, Inc.                                                                                                                                                                                                                                                                                                                                                               |               |        |               |        |
| DESCRIPTION   | 8.4 mm Shaw Engineered Wood, 2 mm ACOUSTIK Rubber Underlayment, 19.05 mm USG Levelrock® Brand 2500 Gypsum Concrete, 18.8 mm Oriented Strand Board Sheathing, 88.9 mm Johns Manville Unfaced R-13 Fiberglass Insulation, 457.2 mm York PB Truss L/360 Open Web Truss, 12.7 mm ClarkDietrich RC Deluxe™ Resilient Channel, 15.9 mm National Gypsum Gold Bond® Fire-Shield C™ Gypsum Panel |               |        |               |        |
| SPECIMEN AREA | 10.98 m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                    | Maximum Temp. | 25.3°C | Minimum Temp. | 25.3°C |
| TECHNICIAN    | MAU                                                                                                                                                                                                                                                                                                                                                                                     | Max. Humidity | 63%    | Min. Humidity | 61%    |

| FREQ<br>(Hz) | BACKGROUND<br>SPL<br>(dB) | ABSORPTION<br>m <sup>2</sup>             | NORMALIZED IMPACT SPL<br>(dB) | 95% SAMPLE<br>CONFIDENCE<br>LIMIT | NUMBER<br>OF<br>DEFICIENCIES |
|--------------|---------------------------|------------------------------------------|-------------------------------|-----------------------------------|------------------------------|
| 400          | 22.7                      | 8.6                                      | 56                            | 0.4                               | 7.5                          |
| 500          | 19.9                      | 7.3                                      | 52                            | 0.4                               | 4.9                          |
| 630          | 22.4                      | 7.4                                      | 47                            | 0.4                               | 1.0                          |
| 800          | 20.5                      | 7.1                                      | 44                            | 0.5                               | 0.0                          |
| 1000         | 19.8                      | 7.4                                      | 40                            | 0.4                               | 0.0                          |
| 1250         | 19.2                      | 7.4                                      | 37                            | 0.3                               | 0.0                          |
| 1600         | 17.6                      | 7.4                                      | 34                            | 0.5                               | 0.0                          |
| 2000         | 14.7                      | 7.9                                      | 35                            | 0.7                               | 0.0                          |
| 2500         | 11.4                      | 8.8                                      | 35                            | 0.7                               | 2.9                          |
| 3150         | 9.7                       | 8.7                                      | 28                            | 0.7                               | 0.0                          |
| HIIC Rating  | 63                        | (High-Frequency Impact Insulation Class) |                               | Sum of Deficiencies               | 16.4                         |

**Notes:** Receive Room levels less than 5 dB above the Background levels are highlighted in yellow.

**TEST REPORT FOR ACOUSTIK**

Report No.: R5380.03-113-11-R0

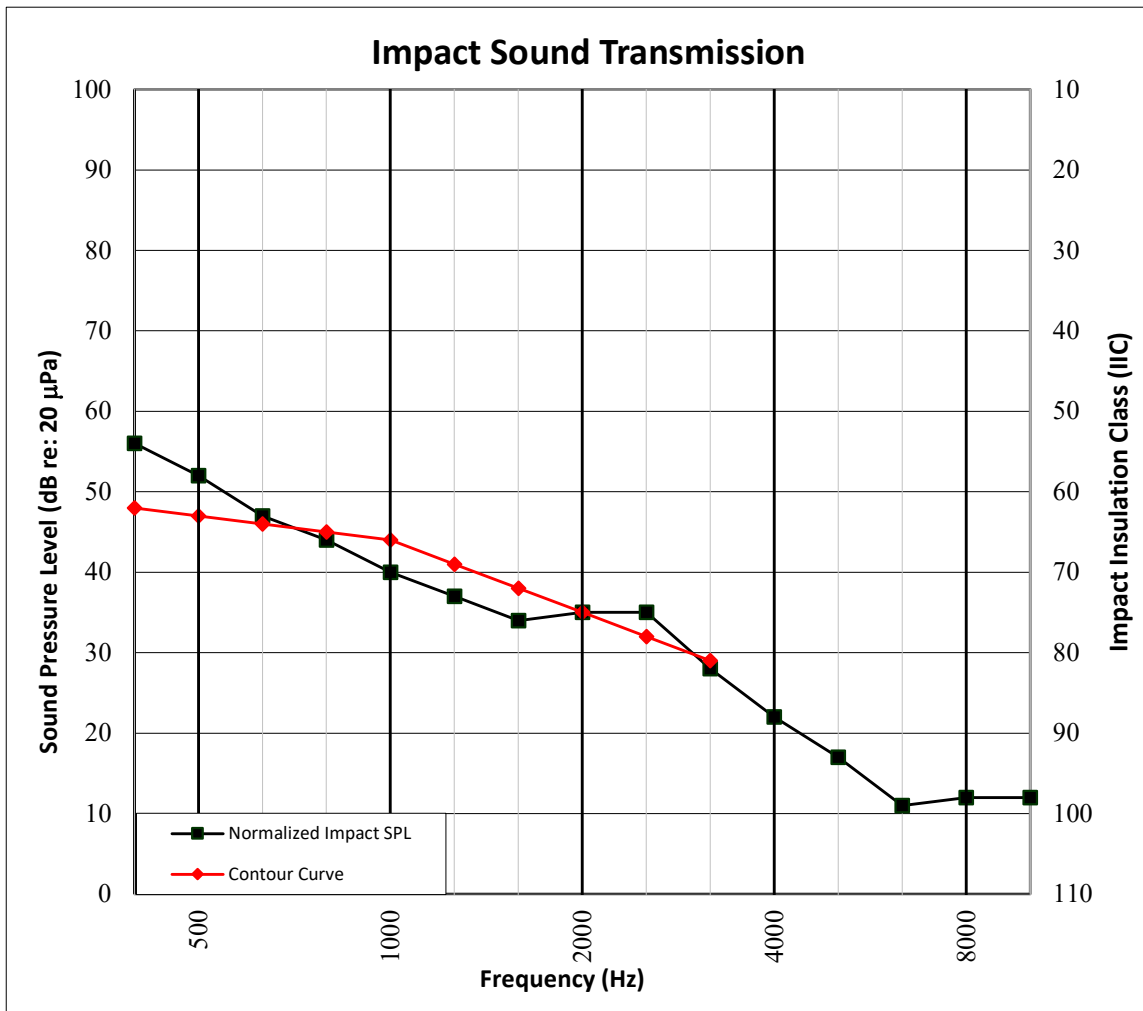
Date: 08/27/24

**SECTION 15**

**TEST RESULTS - HIGH-FREQUENCY IMPACT SOUND TRANSMISSION GRAPH**



|                      |                                                                                                                                                                                                                                                                                                                                                                                         |                      |        |                      |        |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------|----------------------|--------|
| <b>TEST DATE</b>     | 7/26/2024                                                                                                                                                                                                                                                                                                                                                                               |                      |        |                      |        |
| <b>DATA FILE NO.</b> | R5380.03                                                                                                                                                                                                                                                                                                                                                                                |                      |        |                      |        |
| <b>CLIENT</b>        | Acoustical Surfaces, Inc.                                                                                                                                                                                                                                                                                                                                                               |                      |        |                      |        |
| <b>DESCRIPTION</b>   | 8.4 mm Shaw Engineered Wood, 2 mm ACOUSTIK Rubber Underlayment, 19.05 mm USG Levelrock® Brand 2500 Gypsum Concrete, 18.8 mm Oriented Strand Board Sheathing, 88.9 mm Johns Manville Unfaced R-13 Fiberglass Insulation, 457.2 mm York PB Truss L/360 Open Web Truss, 12.7 mm ClarkDietrich RC Deluxe™ Resilient Channel, 15.9 mm National Gypsum Gold Bond® Fire-Shield C™ Gypsum Panel |                      |        |                      |        |
| <b>SPECIMEN AREA</b> | 10.98 m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                    | <b>Maximum Temp.</b> | 25.3°C | <b>Minimum Temp.</b> | 25.3°C |
| <b>TECHNICIAN</b>    | MAU                                                                                                                                                                                                                                                                                                                                                                                     | <b>Max. Humidity</b> | 63%    | <b>Min. Humidity</b> | 61%    |



**TEST REPORT FOR ACOUSTIK**

Report No.: R5380.03-113-11-R0

Date: 08/27/24

**SECTION 16**

**PHOTOGRAPHS**



**Photo No. 1**  
**Source Room View of Test Specimen Installation**



**Photo No. 2**  
**Receive Room View of Test Specimen Installation**

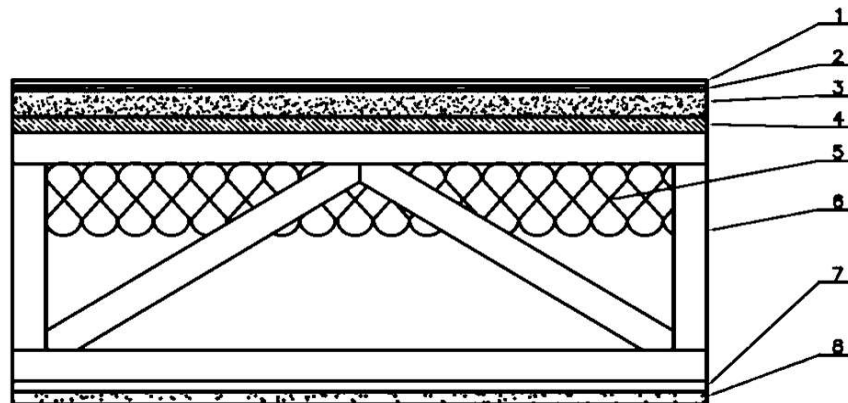
## TEST REPORT FOR ACOUSTIK

Report No.: R5380.03-113-11-R0

Date: 08/27/24

### SECTION 17

#### DRAWING



- 1-Floor Topping
- 2-Underlayment
- 3-Subfloor Topping
- 4-Subfloor
- 5-Insulation
- 6-Truss
- 7-Ceiling Isolation
- 8-Ceiling



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## TEST REPORT FOR ACOUSTIK

Report No.: R5380.03-113-11-R0

Date: 08/27/24

### SECTION 18

#### REVISION LOG

| REVISION # | DATE     | PAGES | DESCRIPTION           |
|------------|----------|-------|-----------------------|
| R0         | 08/27/24 | N/A   | Original Report Issue |