

# **THERMA-TRU CORPORATION**

# **ACOUSTICAL PERFORMANCE TEST REPORT**

## **SCOPE OF WORK**

ASTM E90 SOUND TRANSMISSION LOSS TESTING ON  
FLUSH GLAZED FULL-LITE SMOOTH-STAR WITH LAMINATED GLASS,  
3/0 X 8/0, FIBERGLASS SKIN SIDE-HINGED SINGLE DOOR SYSTEM

## **REPORT NUMBER**

P9976.01-113-11-R0

## **TEST DATES**

03/27/25; 03/28/25

## **ISSUE DATE**

05/20/25

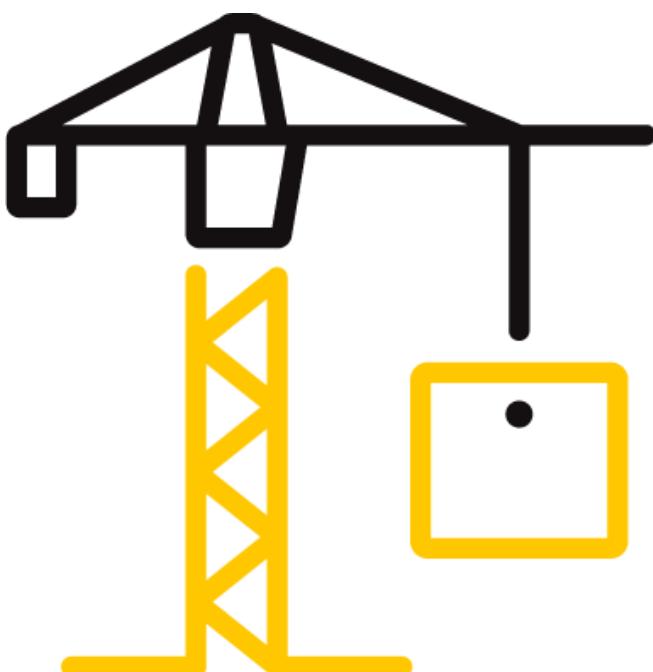
## **PAGES**

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## **DOCUMENT CONTROL NUMBER**

RT-R-AMER-Test-2756 (01/20/25)

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**TEST REPORT FOR THERMA-TRU CORPORATION**

Report No.: P9976.01-113-11-R0

Date: 05/20/25

**REPORT ISSUED TO****THERMA-TRU CORPORATION**

118 Industrial Drive

Edgerton, Ohio 43517

**SECTION 1****SCOPE**

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Therma-Tru Corporation to conduct a sound transmission loss test. Results obtained are tested values and were secured by using the designated test methods. The complete test data is included herein. The client provided the test specimen. All measurements were conducted in the HT 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. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained 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.

For INTERTEK B&amp;C:

|                     |                        |                    |                    |
|---------------------|------------------------|--------------------|--------------------|
| <b>COMPLETED BY</b> | Zachary P. Golden      | <b>REVIEWED BY</b> | Kurt A. Golden     |
| <b>TITLE</b>        | Technician Team Leader | <b>TITLE</b>       | Manager            |
| <b>SIGNATURE</b>    |                        | <b>SIGNATURE</b>   | Acoustical Testing |
| <b>DATE</b>         | 05/20/25               | <b>DATE</b>        | 05/20/25           |

ZPG:jmcs

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**SECTION 2****SUMMARY OF TEST RESULTS**

|   |   |
|---|---|
| <b>SERIES/MODEL</b>                     | Flush Glazed Full-Lite Smooth-Star with Laminated Glass   |
| <b>TYPE</b>                             | 3/0 x 8/0, Fiberglass Skin Side-hinged Single Door System   |
| <b>GLAZING<br/>(Nominal Dimensions)</b> | 1" IG (1/8" tempered exterior, 1/2" air space,<br>3/8" laminated interior),<br>Glass temperature 75°F |

|                       |   |
|-----------------------|---|
| <b>DESCRIPTION</b>    | Composite Frame   |
| <b>TEST CONDITION</b> | Inoperable, sealed with duct seal on both sides of leaf |
| <b>DATA FILE NO.</b>  | P9976.01A1  |
| <b>STC</b>            | 32  |
| <b>OITC</b>           | 29  |

|                       |                 |
|-----------------------|-----------------|
| <b>DESCRIPTION</b>    | Composite Frame |
| <b>TEST CONDITION</b> | Operable        |
| <b>DATA FILE NO.</b>  | P9976.01A2      |
| <b>STC</b>            | 31              |
| <b>OITC</b>           | 28              |

|                       |   |
|-----------------------|---|
| <b>DESCRIPTION</b>    | Wood Frame  |
| <b>TEST CONDITION</b> | Inoperable, sealed with duct seal on both sides of leaf |
| <b>DATA FILE NO.</b>  | P9976.01B1  |
| <b>STC</b>            | 30  |
| <b>OITC</b>           | 29  |

|                       |            |
|-----------------------|------------|
| <b>DESCRIPTION</b>    | Wood Frame |
| <b>TEST CONDITION</b> | Operable   |
| <b>DATA FILE NO.</b>  | P9976.01B2 |
| <b>STC</b>            | 30         |
| <b>OITC</b>           | 28         |

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

The specimens were evaluated in accordance with the following:

**ASTM E90-23, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements**

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

**ASTM E1332-22, Standard Classification for Rating Outdoor-Indoor Sound Attenuation**

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

**SECTION 4****SPECIMEN INSTALLATION**

A sound transmission loss test was initially performed on a filler wall.

The specimen plug was removed from the filler wall assembly. The specimen was placed on an isolation pad in the test opening. Duct seal was used to seal the perimeter of the specimen to the test opening on both sides. The interior side of the specimen, when installed, was approximately 1/4" from being flush with the receive room side of the filler wall. A stethoscope was used to check for any abnormal air leaks around the test specimen prior to testing. Operable portions of the test specimen, if any, were cycled at least five times prior to testing.

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**SECTION 5**  
**EQUIPMENT**

The equipment listed below meets the requirements of the test methods stated in Section 3 of this report.

| INSTRUMENT                           | MANUFACTURER         | MODEL    | DESCRIPTION                 | ASSET #  | CAL DATE |
|--------------------------------------|----------------------|----------|-----------------------------|----------|----------|
| 2-Channel Analog Input               | National Instruments | NI-9250  | 2-Channel Analog Input      | INT02579 | 04/24    |
| 2-Channel Analog Input               | National Instruments | NI-9250  | 2-Channel Analog Input      | INT02580 | 04/24    |
| 2-Channel Analog Input               | National Instruments | NI-9250  | 2-Channel Analog Input      | INT02581 | 04/24    |
| 2-Channel Analog Input               | National Instruments | NI-9250  | 2-Channel Analog Input      | INT02583 | 04/24    |
| 2-Channel Analog Input               | National Instruments | NI-9250  | 2-Channel Analog Input      | INT02584 | 04/24    |
| 2-Channel Analog Input               | National Instruments | NI-9250  | 2-Channel Analog Input      | INT02585 | 04/24    |
| Source Room Microphone               | PCB Piezotronics     | 378C20   | Microphone and Preamplifier | INT03909 | 05/24    |
| Source Room Microphone               | PCB Piezotronics     | 378C20   | Microphone and Preamplifier | INT03910 | 05/24    |
| Source Room Microphone               | PCB Piezotronics     | 378C20   | Microphone and Preamplifier | 65969    | 05/24    |
| Source Room Microphone               | PCB Piezotronics     | 378C20   | Microphone and Preamplifier | INT03907 | 05/24    |
| Source Room Microphone               | PCB piezotronics     | 378C20   | Microphone and Preamplifier | INT03912 | 05/24    |
| Receive Room Microphone              | PBC Piezotronics     | 378C20   | Microphone and Preamplifier | INT03913 | 05/24    |
| Receive Room Microphone              | PCB Piezotronics     | 378C20   | Microphone and Preamplifier | 65617    | 07/24    |
| Receive Room Microphone              | PCB Piezotronics     | 378C20   | Microphone and Preamplifier | INT02256 | 01/25    |
| Receive Room Microphone              | PCB Piezotronics     | 378B20   | Microphone and Preamplifier | INT03914 | 05/24    |
| Receive Room Microphone              | PCB Piezotronics     | 378B20   | Microphone and Preamplifier | INT03436 | 05/24    |
| Receive Room Environmental Indicator | Comet                | T7510    | Receive Room                | 64915    | 01/25    |
| Source Room Environmental Indicator  | Comet                | T7510    | Source Room                 | INT00603 | 05/24    |
| Microphone Calibrator                | Norsonic             | Nor 1255 | Acoustical Calibrator       | INT03566 | 08/24    |

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

**TEST CHAMBER**

|              | VOLUME             | DESCRIPTION   |
|--------------|--------------------|---|
| RECEIVE ROOM | 234 m <sup>3</sup> | Rotating vane and stationary diffusers<br>Temperature and humidity controlled<br>Isolation pads under the floor |
| SOURCE ROOM  | 207 m <sup>3</sup> | Stationary diffusers only<br>Temperature and humidity controlled  |

|                 | MAXIMUM SIZE               | DESCRIPTION                                      |
|-----------------|----------------------------|--|
| TL TEST OPENING | 4.27 m wide by 3.05 m high | Vibration break between source and receive rooms |

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**SECTION 6****LIST OF OFFICIAL OBSERVERS**

| NAME              | COMPANY      |
|-------------------|--------------|
| Zachary P. Golden | Intertek B&C |

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

The sensitivity of the microphones was checked before measurements were conducted.

The transmission loss values were obtained for a single direction of measurement.

Two background noise sound pressure levels and five sound absorption measurements were conducted at each of five microphone positions.

Two sound pressure level measurements were made simultaneously in receive and source rooms at each of five microphone positions.

The air temperature and relative humidity conditions were monitored and recorded during all measurements.

Data for flanking limit tests, repeatability measurements, and reference specimen tests are available upon request.

Intertek B&C will store samples of test specimens for four years.

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

Transmission loss (TL) at each 1/3 octave frequency is the average source room sound pressure level minus the average receive room sound pressure level, plus, 10 times the log of the specimen area divided by the sound absorption of the receive room with the sample in place.

**STC Rating**

To obtain the Sound Transmission Class (STC), read the TL of the contour curve at 500 Hz. The sum of the deficiencies below the contour curve must not exceed 32. The maximum deficiency at any one frequency must not exceed 8.

**OITC Rating**

The Outdoor-Indoor Transmission Class (OITC) is calculated by subtracting the logarithmic summation of the TL values from the logarithmic summation of the A-weighted transportation noise spectrum stated in ASTM E1332.

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**SECTION 9****SPECIMEN DESCRIPTION**

| FRAME                     |                |
|---------------------------|----------------|
| SIZE                      | 37-5/8" by 98" |
| THICKNESS                 | 4-1/4"         |
| CORNERS                   | Coped          |
| FASTENERS                 | Screws         |
| SEAL METHOD               | Sealant        |
| OPTION P9976.01A MATERIAL | Composite      |
| OPTION P9976.01B MATERIAL | Wood           |
| SILL MATERIAL             | Aluminum       |
| REINFORCEMENT             | N/A            |
| THERMAL BREAK MATERIAL    | N/A            |

The leaf was 36" wide by 95" high by 1-3/4" thick. The daylight opening was 24" wide by 79" high.

Per the client's request, the contents of the door leaf are proprietary.

**OPTION P9976.01A**

| MEASURED OVERALL INSULATION GLASS UNIT THICKNESS | 1.014"         |        |                        |
|--|----------------|--------|------------------------|
| SPACER TYPE                                      | Aluminum       |        |                        |
|  | EXTERIOR SHEET | GAP    | INTERIOR SHEET         |
| MEASURED THICKNESS                               | 0.123"         | 0.534" | 0.152", 0.089", 0.116" |
| MUNTIN PATTERN                                   | N/A            | N/A    | N/A                    |
| MATERIAL   | Tempered       | Air*   | Laminated              |
| LAMINATE MATERIAL                                | N/A            | N/A    | PVB                    |

**OPTION P9976.01B**

| MEASURED OVERALL INSULATION GLASS UNIT THICKNESS | 1.011"         |        |                        |
|--|----------------|--------|------------------------|
| SPACER TYPE                                      | Aluminum       |        |                        |
|  | EXTERIOR SHEET | GAP    | INTERIOR SHEET         |
| MEASURED THICKNESS                               | 0.125"         | 0.531" | 0.150", 0.089", 0.116" |
| MUNTIN PATTERN                                   | N/A            | N/A    | N/A                    |
| MATERIAL   | Tempered       | Air*   | Laminated              |
| LAMINATE MATERIAL                                | N/A            | N/A    | PVB                    |

\* - Stated per Client/Manufacturer, N/A-Not Applicable

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|                  |         |
|------------------|---------|
| GLAZING METHOD   | Channel |
| GLAZING MATERIAL | Silicon |

|              | TYPE  | QUANTITY | LOCATION           |
|--------------|---|----------|--------------------|
| WEATHERSTRIP | Q-lon® Long Reach foam-filled leaf gasket                                   | 1 Row    | Lock jamb and head |
|              | Q-lon®  | 1 Row    | Hinge jamb         |
|              | 3/8" Diameter hollow dual bulb gasket and 3/8" triple fin leaf sweep gasket | 1 Row    | Bottom rail        |
|              | 1" by 3" Foam pad   | 1        | Bottom jambs       |
| HARDWARE     | Hinge   | 3        | Hinge jamb         |
|              | Adjusting threshold   | 1        | Sill               |
|              | Lock assembly set   | 1        | Lock stile         |
|              | Dead bolt   | 1        | Lock stile         |
| DRAINAGE     | Sloped sill   | 1        | Sill               |

| OPTION    | TOTAL WEIGHT (lbs) | AVERAGE WEIGHT (lbs/ft <sup>2</sup> ) |
|-----------|--------------------|---------------------------------------|
| P9976.01A | 165                | 6.44                                  |
| P9976.01B | 151                | 5.90                                  |

Photographs are included in Section 11.

The client did not supply a report drawing of the test specimen.

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Date: 05/20/25

**SECTION 10**
**TEST RESULTS**
**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |  |                  |         |                 |         |
|---------------|--|------------------|---------|-----------------|---------|
| TEST DATE     | 03/27/25   |                  |         |                 |         |
| DATA FILE NO. | P9976.01A1   |                  |         |                 |         |
| CLIENT        | Therma-Tru Corporation   |                  |         |                 |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, composite frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Inoperable, sealed with duct seal on both sides of leaf |                  |         |                 |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>  | RECEIVE TEMP.    | 21.6 °C | SOURCE TEMP.    | 22.3 °C |
| TECHNICIAN    | Zachary P. G   | RECEIVE HUMIDITY | 47%     | SOURCE HUMIDITY | 48%     |



Lab Code 600388-0

| FREQ<br>(Hz) | BACKGROUND<br>SPL<br>(dB) | ABSORPTION<br>(m <sup>2</sup> )     | SOURCE<br>SPL<br>(dB) | RECEIVE<br>SPL<br>(dB) | SPECIMEN<br>TL<br>(dB) | 95%<br>SAMPLING<br>LIMIT(dB) | NUMBER<br>OF<br>DEFICIENCIES |
|--------------|---------------------------|-------------------------------------|-----------------------|------------------------|------------------------|------------------------------|------------------------------|
| 80           | 34.3                      | 4.9                                 | 106                   | 83                     | 20                     | 4.26                         | -                            |
| 100          | 29.9                      | 6.2                                 | 105                   | 78                     | 23                     | 2.90                         | -                            |
| 125          | 30.5                      | 5.9                                 | 107                   | 79                     | 25                     | 2.30                         | 0                            |
| 160          | 38.3                      | 5.4                                 | 108                   | 80                     | 26                     | 1.26                         | 0                            |
| 200          | 36.8                      | 5.9                                 | 107                   | 78                     | 26                     | 0.99                         | 0                            |
| 250          | 32.4                      | 6.0                                 | 104                   | 76                     | 24                     | 1.32                         | 1                            |
| 315          | 29.8                      | 6.2                                 | 104                   | 73                     | 27                     | 0.62                         | 1                            |
| 400          | 28.9                      | 6.3                                 | 103                   | 69                     | 30                     | 1.06                         | 1                            |
| 500          | 28.0                      | 6.1                                 | 104                   | 65                     | 34                     | 1.39                         | 0                            |
| 630          | 26.7                      | 6.0                                 | 104                   | 64                     | 36                     | 0.71                         | 0                            |
| 800          | 27.1                      | 6.4                                 | 102                   | 62                     | 36                     | 0.48                         | 0                            |
| 1000         | 26.1                      | 6.6                                 | 103                   | 66                     | 32                     | 0.38                         | 3                            |
| 1250         | 27.4                      | 6.9                                 | 101                   | 63                     | 33                     | 0.88                         | 3                            |
| 1600         | 22.4                      | 7.5                                 | 99                    | 67                     | 28                     | 0.45                         | 8                            |
| 2000         | 12.7                      | 7.9                                 | 101                   | 66                     | 30                     | 0.25                         | 6                            |
| 2500         | 8.3                       | 9.1                                 | 102                   | 60                     | 37                     | 0.48                         | 0                            |
| 3150         | 7.0                       | 11.1                                | 101                   | 50                     | 45                     | 0.54                         | 0                            |
| 4000         | 7.7                       | 13.8                                | 99                    | 49                     | 42                     | 0.64                         | 0                            |
| 5000         | 8.4                       | 17.4                                | 99                    | 46                     | 44                     | 0.40                         | -                            |
| STC RATING   | 32                        | (Sound Transmission Class)          |                       |                        |                        |                              |                              |
| DEFICIENCIES | 23                        | (Sum of Deficiencies)               |                       |                        |                        |                              |                              |
| OITC RATING  | 29                        | (Outdoor-Indoor Transmission Class) |                       |                        |                        |                              |                              |

Notes: 1) Receive Room levels less than 6 dB above the Background levels are red.

2) Specimen TL levels listed in red indicate the lower limit of the transmission loss.

3) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

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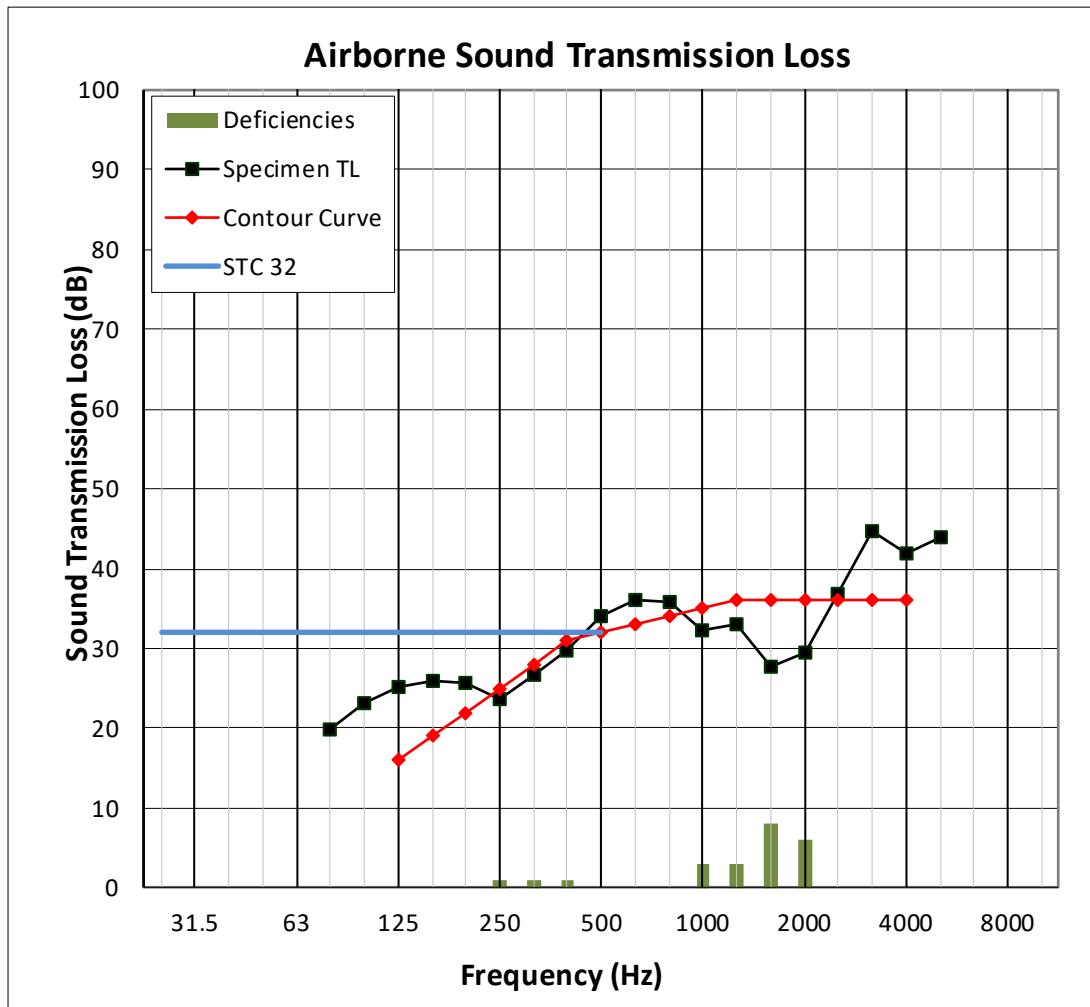
Date: 05/20/25

**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |  |                  |         |                 |         |
|---------------|--|------------------|---------|-----------------|---------|
| TEST DATE     | 03/27/25   |                  |         |                 |         |
| DATA FILE NO. | P9976.01A1   |                  |         |                 |         |
| CLIENT        | Therma-Tru Corporation   |                  |         |                 |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, composite frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Inoperable, sealed with duct seal on both sides of leaf |                  |         |                 |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>  | RECEIVE TEMP.    | 21.6 °C | SOURCE TEMP.    | 22.3 °C |
| TECHNICIAN    | Zachary P. G   | RECEIVE HUMIDITY | 47%     | SOURCE HUMIDITY | 48%     |



Lab Code 600388-0



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**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |   |                  |         |                 |         |
|---------------|---|------------------|---------|-----------------|---------|
| TEST DATE     | 03/27/25  |                  |         |                 |         |
| DATA FILE NO. | P9976.01A2  |                  |         |                 |         |
| CLIENT        | Therma-Tru Corporation  |                  |         |                 |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, composite frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Operable |                  |         |                 |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>   | RECEIVE TEMP.    | 21.6 °C | SOURCE TEMP.    | 22.3 °C |
| TECHNICIAN    | Zachary P. G  | RECEIVE HUMIDITY | 47%     | SOURCE HUMIDITY | 48%     |



Lab Code 600388-0

| FREQ<br>(Hz) | BACKGROUND<br>SPL<br>(dB) | ABSORPTION<br>(m <sup>2</sup> )     | SOURCE<br>SPL<br>(dB) | RECEIVE<br>SPL<br>(dB) | SPECIMEN<br>TL<br>(dB) | 95%<br>SAMPLING<br>LIMIT (dB) | NUMBER<br>OF<br>DEFICIENCIES |
|--------------|---------------------------|-------------------------------------|-----------------------|------------------------|------------------------|-------------------------------|------------------------------|
| 80           | 38.2                      | 5.0                                 | 105                   | 82                     | 20                     | 3.59                          | -                            |
| 100          | 32.5                      | 6.2                                 | 106                   | 79                     | 23                     | 2.87                          | -                            |
| 125          | 33.9                      | 5.8                                 | 107                   | 80                     | 24                     | 2.26                          | 0                            |
| 160          | 39.3                      | 5.2                                 | 108                   | 80                     | 25                     | 1.40                          | 0                            |
| 200          | 37.2                      | 5.8                                 | 107                   | 80                     | 24                     | 1.06                          | 0                            |
| 250          | 32.5                      | 6.1                                 | 104                   | 78                     | 22                     | 1.37                          | 2                            |
| 315          | 29.9                      | 6.1                                 | 104                   | 74                     | 26                     | 0.64                          | 1                            |
| 400          | 28.8                      | 6.3                                 | 103                   | 71                     | 28                     | 0.97                          | 2                            |
| 500          | 27.8                      | 6.1                                 | 104                   | 67                     | 33                     | 1.41                          | 0                            |
| 630          | 26.6                      | 6.2                                 | 104                   | 66                     | 34                     | 0.72                          | 0                            |
| 800          | 27.1                      | 6.4                                 | 101                   | 65                     | 32                     | 0.47                          | 1                            |
| 1000         | 26.0                      | 6.6                                 | 103                   | 68                     | 31                     | 0.45                          | 3                            |
| 1250         | 27.2                      | 7.0                                 | 101                   | 65                     | 32                     | 0.91                          | 3                            |
| 1600         | 22.6                      | 7.6                                 | 99                    | 67                     | 27                     | 0.46                          | 8                            |
| 2000         | 12.7                      | 8.1                                 | 101                   | 66                     | 29                     | 0.31                          | 6                            |
| 2500         | 8.4                       | 9.3                                 | 102                   | 61                     | 36                     | 0.50                          | 0                            |
| 3150         | 7.1                       | 11.1                                | 101                   | 54                     | 41                     | 0.52                          | 0                            |
| 4000         | 7.8                       | 13.7                                | 99                    | 51                     | 40                     | 0.61                          | 0                            |
| 5000         | 8.5                       | 17.5                                | 99                    | 50                     | 40                     | 0.43                          | -                            |
| STC RATING   | 31                        | (Sound Transmission Class)          |                       |                        |                        |                               |                              |
| DEFICIENCIES | 26                        | (Sum of Deficiencies)               |                       |                        |                        |                               |                              |
| OITC RATING  | 28                        | (Outdoor-Indoor Transmission Class) |                       |                        |                        |                               |                              |

**Notes:**

- 1) Receive Room levels less than 6 dB above the Background levels are red.
- 2) Specimen TL levels listed in red indicate the lower limit of the transmission loss.
- 3) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

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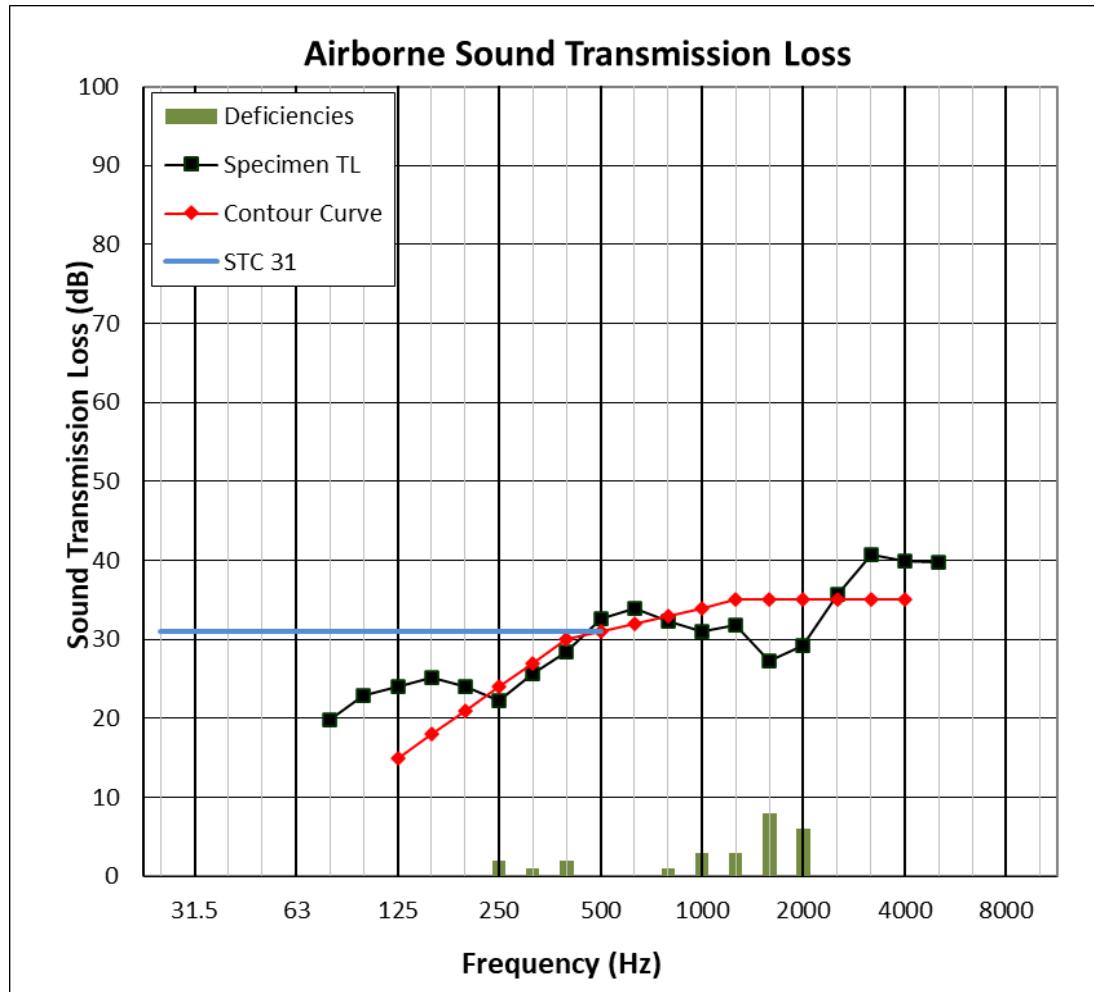
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**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |   |                  |         |                 |         |
|---------------|---|------------------|---------|-----------------|---------|
| TEST DATE     | 03/27/25  |                  |         |                 |         |
| DATA FILE NO. | P9976.01A2  |                  |         |                 |         |
| CLIENT        | Therma-Tru Corporation  |                  |         |                 |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, composite frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Operable |                  |         |                 |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>   | RECEIVE TEMP.    | 21.6 °C | SOURCE TEMP.    | 22.3 °C |
| TECHNICIAN    | Zachary P. G  | RECEIVE HUMIDITY | 47%     | SOURCE HUMIDITY | 48%     |



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**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |   |                  |         |
|---------------|---|------------------|---------|
| TEST DATE     | 03/28/25  |                  |         |
| DATA FILE NO. | P9976.01B1  |                  |         |
| CLIENT        | Therma-Tru Corporation  |                  |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, wood frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Inoperable, sealed with duct seal on both sides of leaf |                  |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>   | RECEIVE TEMP.    | 22.1 °C |
| TECHNICIAN    | Kurt Golden   | RECEIVE HUMIDITY | 46%     |
|               |   | SOURCE TEMP.     | 21.9 °C |
|               |   | SOURCE HUMIDITY  | 48%     |



Lab Code 600388-0

| FREQ<br>(Hz) | BACKGROUND<br>SPL<br>(dB) | ABSORPTION<br>(m <sup>2</sup> )     | SOURCE<br>SPL<br>(dB) | RECEIVE<br>SPL<br>(dB) | SPECIMEN<br>TL<br>(dB) | 95%<br>SAMPLING<br>LIMIT (dB) | NUMBER<br>OF<br>DEFICIENCIES |
|--------------|---------------------------|-------------------------------------|-----------------------|------------------------|------------------------|-------------------------------|------------------------------|
| 80           | 37.7                      | 4.8                                 | 106                   | 83                     | 20                     | 4.02                          | -                            |
| 100          | 32.4                      | 6.9                                 | 105                   | 79                     | 22                     | 3.23                          | -                            |
| 125          | 32.5                      | 5.5                                 | 107                   | 79                     | 25                     | 2.18                          | 0                            |
| 160          | 38.6                      | 5.3                                 | 108                   | 80                     | 25                     | 1.73                          | 0                            |
| 200          | 34.7                      | 5.7                                 | 107                   | 78                     | 25                     | 1.01                          | 0                            |
| 250          | 31.7                      | 6.3                                 | 104                   | 76                     | 24                     | 1.42                          | 0                            |
| 315          | 28.8                      | 6.1                                 | 103                   | 72                     | 27                     | 0.60                          | 0                            |
| 400          | 29.2                      | 6.5                                 | 103                   | 68                     | 30                     | 0.86                          | 0                            |
| 500          | 28.0                      | 6.0                                 | 104                   | 66                     | 34                     | 1.36                          | 0                            |
| 630          | 25.7                      | 6.1                                 | 103                   | 63                     | 36                     | 0.76                          | 0                            |
| 800          | 26.1                      | 6.4                                 | 101                   | 61                     | 36                     | 0.60                          | 0                            |
| 1000         | 24.2                      | 6.6                                 | 103                   | 67                     | 32                     | 0.49                          | 1                            |
| 1250         | 24.4                      | 6.9                                 | 101                   | 64                     | 32                     | 0.84                          | 2                            |
| 1600         | 22.2                      | 7.5                                 | 99                    | 68                     | 26                     | 0.47                          | 8                            |
| 2000         | 12.8                      | 8.0                                 | 101                   | 64                     | 31                     | 0.39                          | 3                            |
| 2500         | 9.4                       | 9.2                                 | 102                   | 59                     | 38                     | 0.57                          | 0                            |
| 3150         | 7.2                       | 11.0                                | 101                   | 49                     | 45                     | 0.55                          | 0                            |
| 4000         | 7.8                       | 13.7                                | 98                    | 49                     | 42                     | 0.70                          | 0                            |
| 5000         | 8.3                       | 17.5                                | 99                    | 47                     | 43                     | 0.37                          | -                            |
| STC RATING   | 30                        | (Sound Transmission Class)          |                       |                        |                        |                               |                              |
| DEFICIENCIES | 14                        | (Sum of Deficiencies)               |                       |                        |                        |                               |                              |
| OITC RATING  | 29                        | (Outdoor-Indoor Transmission Class) |                       |                        |                        |                               |                              |

**Notes:**

- 1) Receive Room levels less than 6 dB above the Background levels are red.
- 2) Specimen TL levels listed in red indicate the lower limit of the transmission loss.
- 3) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

**TEST REPORT FOR THERMA-TRU CORPORATION**

Report No.: P9976.01-113-11-R0

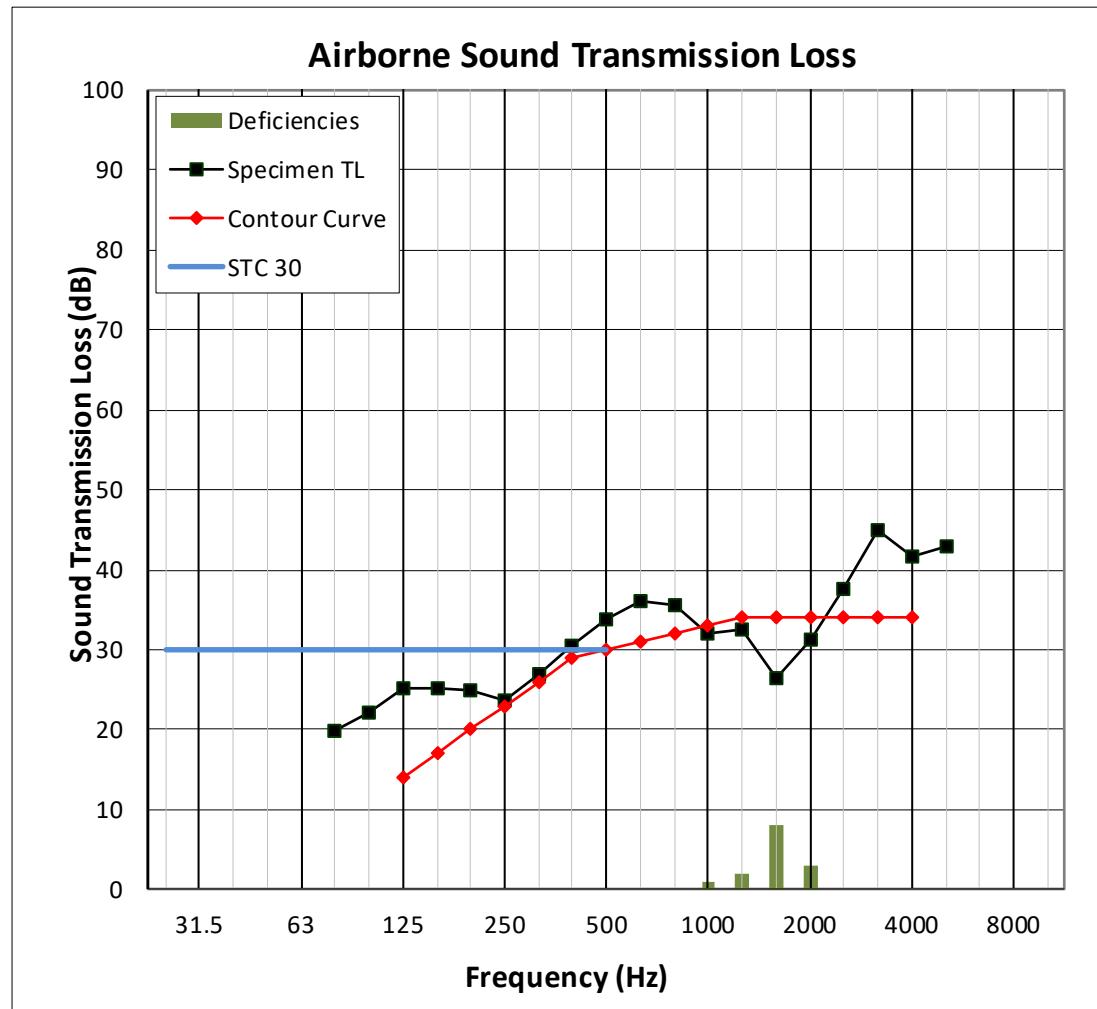
Date: 05/20/25

**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |   |                  |         |                 |         |
|---------------|---|------------------|---------|-----------------|---------|
| TEST DATE     | 03/28/25  |                  |         |                 |         |
| DATA FILE NO. | P9976.01B1  |                  |         |                 |         |
| CLIENT        | Therma-Tru Corporation  |                  |         |                 |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, wood frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Inoperable, sealed with duct seal on both sides of leaf |                  |         |                 |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>   | RECEIVE TEMP.    | 22.1 °C | SOURCE TEMP.    | 21.9 °C |
| TECHNICIAN    | Kurt Golden   | RECEIVE HUMIDITY | 46%     | SOURCE HUMIDITY | 48%     |



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**TEST REPORT FOR THERMA-TRU CORPORATION**

Report No.: P9976.01-113-11-R0

Date: 05/20/25

**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |  |                  |         |                 |         |
|---------------|--|------------------|---------|-----------------|---------|
| TEST DATE     | 03/28/25   |                  |         |                 |         |
| DATA FILE NO. | P9976.01B2   |                  |         |                 |         |
| CLIENT        | Therma-Tru Corporation   |                  |         |                 |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, wood frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Operable |                  |         |                 |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>  | RECEIVE TEMP.    | 22.0 °C | SOURCE TEMP.    | 22.1 °C |
| TECHNICIAN    | Kurt Golden  | RECEIVE HUMIDITY | 45%     | SOURCE HUMIDITY | 48%     |



Lab Code 600388-0

| FREQ<br>(Hz) | BACKGROUND<br>SPL<br>(dB) | ABSORPTION<br>(m <sup>2</sup> )     | SOURCE<br>SPL<br>(dB) | RECEIVE<br>SPL<br>(dB) | SPECIMEN<br>TL<br>(dB) | 95%<br>SAMPLING<br>LIMIT (dB) | NUMBER<br>OF<br>DEFICIENCIES |
|--------------|---------------------------|-------------------------------------|-----------------------|------------------------|------------------------|-------------------------------|------------------------------|
| 80           | 37.6                      | 5.3                                 | 106                   | 83                     | 19                     | 3.96                          | -                            |
| 100          | 32.8                      | 6.5                                 | 105                   | 79                     | 22                     | 2.91                          | -                            |
| 125          | 33.2                      | 5.7                                 | 107                   | 80                     | 23                     | 2.32                          | 0                            |
| 160          | 40.2                      | 5.2                                 | 108                   | 81                     | 24                     | 1.56                          | 0                            |
| 200          | 36.2                      | 5.9                                 | 107                   | 81                     | 23                     | 0.85                          | 0                            |
| 250          | 32.7                      | 6.1                                 | 104                   | 78                     | 22                     | 1.32                          | 1                            |
| 315          | 30.1                      | 6.0                                 | 103                   | 73                     | 26                     | 0.46                          | 0                            |
| 400          | 30.3                      | 6.4                                 | 103                   | 70                     | 29                     | 0.89                          | 0                            |
| 500          | 28.9                      | 6.2                                 | 104                   | 68                     | 32                     | 1.33                          | 0                            |
| 630          | 26.9                      | 6.1                                 | 103                   | 66                     | 33                     | 0.74                          | 0                            |
| 800          | 27.1                      | 6.5                                 | 101                   | 65                     | 32                     | 0.54                          | 0                            |
| 1000         | 24.7                      | 6.6                                 | 103                   | 69                     | 30                     | 0.53                          | 3                            |
| 1250         | 25.0                      | 7.0                                 | 101                   | 65                     | 31                     | 0.81                          | 3                            |
| 1600         | 22.9                      | 7.6                                 | 99                    | 68                     | 26                     | 0.51                          | 8                            |
| 2000         | 13.4                      | 8.1                                 | 101                   | 64                     | 31                     | 0.30                          | 3                            |
| 2500         | 9.9                       | 9.4                                 | 102                   | 60                     | 36                     | 0.56                          | 0                            |
| 3150         | 8.1                       | 11.2                                | 101                   | 53                     | 41                     | 0.60                          | 0                            |
| 4000         | 8.6                       | 14.0                                | 98                    | 51                     | 40                     | 0.68                          | 0                            |
| 5000         | 8.6                       | 17.8                                | 99                    | 50                     | 40                     | 0.43                          | -                            |
| STC RATING   | 30                        | (Sound Transmission Class)          |                       |                        |                        |                               |                              |
| DEFICIENCIES | 18                        | (Sum of Deficiencies)               |                       |                        |                        |                               |                              |
| OITC RATING  | 28                        | (Outdoor-Indoor Transmission Class) |                       |                        |                        |                               |                              |

**Notes:**

- 1) Receive Room levels less than 6 dB above the Background levels are red.
- 2) Specimen TL levels listed in red indicate the lower limit of the transmission loss.
- 3) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

**TEST REPORT FOR THERMA-TRU CORPORATION**

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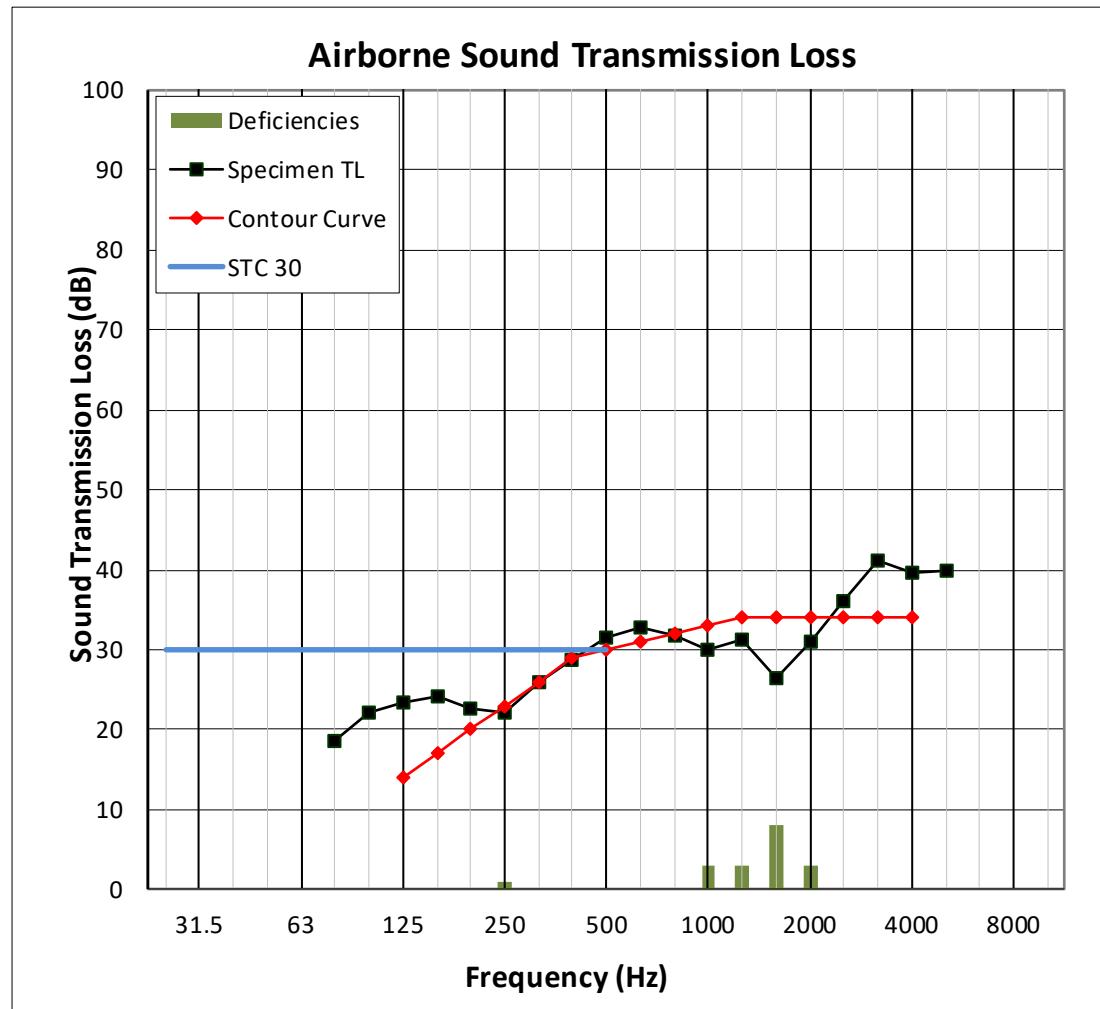
Date: 05/20/25

**ASTM E90  
AIRBORNE SOUND TRANSMISSION LOSS**

|               |  |                  |         |                 |         |
|---------------|--|------------------|---------|-----------------|---------|
| TEST DATE     | 03/28/25   |                  |         |                 |         |
| DATA FILE NO. | P9976.01B2   |                  |         |                 |         |
| CLIENT        | Therma-Tru Corporation   |                  |         |                 |         |
| DESCRIPTION   | Series/Model: Flush Glazed Full Lite Smooth-Star, 3/0 x 8/0, fiberglass skin, wood frame, side-hinged single door system with 1" IG (1/8" tempered exterior, 1/2" air space, 3/8" laminated interior), Glass temperature 75F, Operable |                  |         |                 |         |
| SPECIMEN AREA | 2.38 m <sup>2</sup>  | RECEIVE TEMP.    | 22.0 °C | SOURCE TEMP.    | 22.1 °C |
| TECHNICIAN    | Kurt Golden  | RECEIVE HUMIDITY | 45%     | SOURCE HUMIDITY | 48%     |



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**TEST REPORT FOR THERMA-TRU CORPORATION**

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**SECTION 11**  
**PHOTOGRAPHS**

**Photo No. 1**  
**Receive Room View of Installed Operable Test Specimen**



**Photo No. 2**  
**Source Room View of Installed Operable Test Specimen**

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**Photo No. 3**  
**Receive Room View of Installed Inoperable Test Specimen**



**Photo No. 4**  
**Source Room View of Installed Inoperable Test Specimen**



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## TEST REPORT FOR THERMA-TRU CORPORATION

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### SECTION 12

#### REVISION LOG

| REVISION # | DATE     | PAGES | REVISION              |
|------------|----------|-------|-----------------------|
| 0          | 05/20/25 | N/A   | Original Report Issue |