

# VALUE WINDOWS & DOORS

## ACOUSTICAL PERFORMANCE TEST REPORT

**SCOPE OF WORK**

ASTM E90 SOUND TRANSMISSION LOSS TESTING ON A EUROTEK, TILT & TURN WINDOW

**REPORT NUMBER**

J0967.01-303-11

**TEST DATE**

11/16/18

**ISSUE DATE**

11/27/18

**RECORD RETENTION END DATE**

11/19/22

**PAGES**

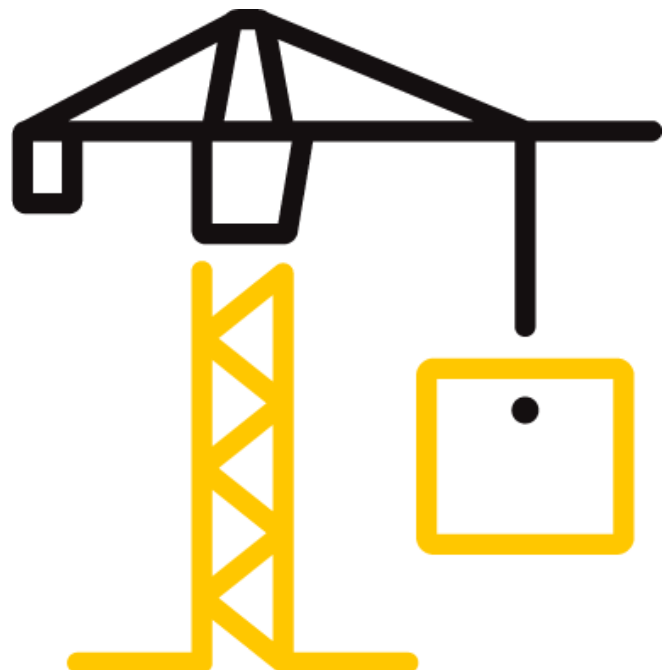
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**DOCUMENT CONTROL NUMBER**

ATI 00596 (07/24/17)

RT-R-AMER-Test-2761

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## TEST REPORT FOR VALUE WINDOWS & DOORS

Report No.: J0967.01-303-11

Date: 11/27/18

### REPORT ISSUED TO

#### VALUE WINDOWS & DOORS

1830 Flower Avenue

Duarte, California 91010

### SECTION 1

#### SCOPE

Intertek Building & Construction (B&C) was contracted by Value Windows & Doors to conduct a sound transmission loss test. Results obtained are tested values and were secured by using the designated test method(s). 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 Lake Forest, California.

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

For INTERTEK B&C:

|                      |                                    |                     |                    |
|----------------------|------------------------------------|---------------------|--------------------|
| <b>COMPLETED BY:</b> | David A. Pendleton                 | <b>REVIEWED BY:</b> | Leeland S. Hoover  |
| <b>TITLE:</b>        | Technician II – Acoustical Testing | <b>TITLE:</b>       | Laboratory Manager |
| <b>SIGNATURE:</b>    |                                    | <b>SIGNATURE:</b>   |                    |
| <b>DATE:</b>         | 11/27/18                           | <b>DATE:</b>        | 11/27/18           |

DAP:LSH:ab

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### SECTION 2

#### SUMMARY OF TEST RESULTS

##### Test Option A

|                                     |                                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>SERIES/MODEL</b>                 | Eurotek                                                                                               |
| <b>TYPE</b>                         | Tilt & Turn Window                                                                                    |
| <b>GLAZING (Nominal Dimensions)</b> | 1-5/16" IG (1/4" Annealed Exterior, 11/16" Air Space, 3/8" Laminated Interior), Glass Temperature 75° |
| <b>DATA FILE NO.</b>                | J0967.01A                                                                                             |
| <b>STC</b>                          | 40                                                                                                    |
| <b>OITC</b>                         | 33                                                                                                    |

##### Test Option B

|                                     |                                                                                                     |
|-------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>SERIES/MODEL</b>                 | Eurotek                                                                                             |
| <b>TYPE</b>                         | Tilt & Turn Window                                                                                  |
| <b>GLAZING (Nominal Dimensions)</b> | 1-1/2" IG (3/8" Laminated Exterior, 3/4" Air Space, 3/8" Laminated Interior), Glass Temperature 75° |
| <b>DATA FILE NO.</b>                | J0967.01B                                                                                           |
| <b>STC</b>                          | 42                                                                                                  |
| <b>OITC</b>                         | 35                                                                                                  |

##### Test Option C

|                                     |                                                                                |
|-------------------------------------|--------------------------------------------------------------------------------|
| <b>SERIES/MODEL</b>                 | Eurotek                                                                        |
| <b>TYPE</b>                         | Tilt & Turn Windows                                                            |
| <b>GLAZING (Nominal Dimensions)</b> | 1-1/4" IG (1/4" Annealed Exterior, 11/16" Air Space, 5/16" Laminated Interior) |
| <b>DATA FILE NO.</b>                | J0967.01C                                                                      |
| <b>STC</b>                          | 40                                                                             |
| <b>OITC</b>                         | 32                                                                             |

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### SECTION 3

#### TEST METHOD(S)

The specimens were evaluated in accordance with the following with the exceptions stated in the Test Procedure section of this report:

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

**ASTM E413-16**, *Classification for Rating Sound Insulation*

**ASTM E1332-16**, *Standard Classification for Rating Outdoor-Indoor Sound Attenuation*

**ASTM E2235-04 (2012)**, *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. A filler wall-reducing element was used to adjust the test opening size to accommodate the test specimen. The reducing element consisted of a double 2x6 wood stud wall construction with three layers of 5/8" drywall on both sides. The stud cavities in the wall were insulated with two layers of R-19 fiberglass insulation. The specimen was placed on an isolation pad in the custom 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.

### EQUIPMENT

| INSTRUMENT                           | MANUFACTURER         | MODEL     | DESCRIPTION                 | ASSET #  | CAL DATE |
|--------------------------------------|----------------------|-----------|-----------------------------|----------|----------|
| Data Acquisition Card                | National Instruments | PXIe-4464 | Data Acquisition Card       | INT00627 | 10/17    |
| Data Acquisition Card                | National Instruments | PXIe-4464 | Data Acquisition Card       | INT00395 | 10/17    |
| Data Acquisition Card                | National Instruments | PXIe-4464 | Data Acquisition Card       | INT00396 | 10/17    |
| Source Room Microphone               | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | 64902    | 04/18    |
| Source Room Microphone               | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | INT00240 | 04/18    |
| Source Room Microphone               | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | INT00241 | 04/18    |
| Source Room Microphone               | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | INT00242 | 04/18    |
| Source Room Microphone               | PCB piezotronics     | 378C20    | Microphone and Preamplifier | INT00243 | 04/18    |
| Receive Room Microphone              | PBC Piezotronics     | 378C20    | Microphone and Preamplifier | INT00244 | 04/18    |
| Receive Room Microphone              | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | INT00245 | 04/18    |
| Receive Room Microphone              | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | INT00246 | 04/18    |
| Receive Room Microphone              | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | INT00247 | 04/18    |
| Receive Room Microphone              | PCB Piezotronics     | 378C20    | Microphone and Preamplifier | INT00228 | 04/18    |
| Receive Room Environmental Indicator | Comet                | T7510     | Receive Room                | INT00299 | 04/18    |
| Source Room Environmental Indicator  | Comet                | T7510     | Source Room                 | INT00300 | 04/18    |
| Microphone Calibrator                | Norsonic             | 1251      | Acoustical Calibrator       | INT00288 | 07/18    |

### TEST CHAMBER

|              | VOLUME             | DESCRIPTION                                                                                                     |
|--------------|--------------------|-----------------------------------------------------------------------------------------------------------------|
| RECEIVE ROOM | 231 m <sup>3</sup> | Rotating vane and stationary diffusers<br>Temperature and humidity controlled<br>Isolation pads under the floor |
| SOURCE ROOM  | 196 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 |

N/A-Not Applicable

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### SECTION 6

#### LIST OF OFFICIAL OBSERVERS

| NAME               | COMPANY               |
|--------------------|-----------------------|
| Bensen Xie         | Value Windows & Doors |
| David A. Pendleton | Intertek B&C          |
| Leeland S. Hoover  | 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 level and five sound absorption measurements were conducted at each of five microphone positions.

Two sound pressure levels were made simultaneously in the 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.

The specimen was returned per the client's request.

### 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.

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### 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.

### SECTION 9

#### SPECIMEN DESCRIPTION

|                                   | FRAME          | VENT               |
|-----------------------------------|----------------|--------------------|
| <b>SIZE</b>                       | 47-1/4" by 59" | 44" by 55-11/16"   |
| <b>THICKNESS</b>                  | 2-13/16"       | 2-3/4"             |
| CORNERS                           | Mitered        | Mitered            |
| FASTENERS                         | Welds          | Welds              |
| SEAL METHOD                       | N/A            | N/A                |
| <b>MATERIAL</b>                   | Aluminum       | Aluminum           |
| REINFORCEMENT                     | N/A            | N/A                |
| THERMAL BREAK MATERIAL            | N/A            | N/A                |
| <b>DAYLIGHT OPENING SIZE (X2)</b> | N/A            | 37-7/8" by 49-1/2" |

#### Test Option A

|                                                         |               |
|---------------------------------------------------------|---------------|
| <b>MEASURED OVERALL INSULATION GLASS UNIT THICKNESS</b> | 1.28"         |
| <b>SPACER TYPE</b>                                      | Silicone Foam |

|                           | EXTERIOR SHEET | GAP    | INTERIOR SHEET         |
|---------------------------|----------------|--------|------------------------|
| <b>MEASURED THICKNESS</b> | 0.222"         | 0.697" | 0.151", 0.059", 0.151" |
| <b>MUNTIN PATTERN</b>     | N/A            | N/A    | N/A                    |
| <b>MATERIAL</b>           | Annealed       | Air*   | Laminated              |
| <b>LAMINATE MATERIAL</b>  | N/A            | N/A    | PVB                    |

| TOTAL WEIGHT (lbs) | AVERAGE WEIGHT (lbs / ft <sup>2</sup> ) |
|--------------------|-----------------------------------------|
| 162                | 8.37                                    |

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### Test Option B

|                                                         |               |
|---------------------------------------------------------|---------------|
| <b>MEASURED OVERALL INSULATION GLASS UNIT THICKNESS</b> | 1.48 "        |
| <b>SPACER TYPE</b>                                      | Silicone Foam |

|                           | <b>EXTERIOR SHEET</b>  | <b>GAP</b> | <b>INTERIOR SHEET</b>  |
|---------------------------|------------------------|------------|------------------------|
| <b>MEASURED THICKNESS</b> | 0.150", 0.064", 0.151" | 0.744"     | 0.151", 0.067", 0.153" |
| <b>MUNTIN PATTERN</b>     | N/A                    | N/A        | N/A                    |
| <b>MATERIAL</b>           | Laminated              | Air*       | Laminated              |
| <b>LAMINATE MATERIAL</b>  | PVB                    | N/A        | PVB                    |

| <b>TOTAL WEIGHT (lbs)</b> | <b>AVERAGE WEIGHT (lbs / ft<sup>2</sup>)</b> |
|---------------------------|----------------------------------------------|
| 180                       | 9.30                                         |

### Test Option C

|                                                         |               |
|---------------------------------------------------------|---------------|
| <b>MEASURED OVERALL INSULATION GLASS UNIT THICKNESS</b> | 1.24"         |
| <b>SPACER TYPE</b>                                      | Silicone Foam |

|                           | <b>EXTERIOR SHEET</b> | <b>GAP</b> | <b>INTERIOR SHEET</b>  |
|---------------------------|-----------------------|------------|------------------------|
| <b>MEASURED THICKNESS</b> | 0.222"                | 0.688"     | 0.150", 0.030", 0.150" |
| <b>MUNTIN PATTERN</b>     | N/A                   | N/A        | N/A                    |
| <b>MATERIAL</b>           | Annealed              | Air*       | Laminated              |
| <b>LAMINATE MATERIAL</b>  | N/A                   | N/A        | PVB                    |

| <b>TOTAL WEIGHT (lbs)</b> | <b>AVERAGE WEIGHT (lbs / ft<sup>2</sup>)</b> |
|---------------------------|----------------------------------------------|
| 160                       | 8.26                                         |



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|                              |               |
|------------------------------|---------------|
| <b>GLAZING METHOD</b>        | Interior      |
| <b>GLAZING MATERIAL</b>      | Rubber Gasket |
| <b>GLAZING BEAD MATERIAL</b> | Vinyl         |

|                     | <b>TYPE</b>                     | <b>QUANTITY</b> | <b>LOCATION</b>                              |
|---------------------|---------------------------------|-----------------|----------------------------------------------|
| <b>WEATHERSTRIP</b> | Hollow Bulb Leaf Gasket         | 1 row           | Inside perimeter of frame                    |
| <b>HARDWARE</b>     | Multipoint lock                 | 1               | 3 top, 3 bottom, 3 lock stile. 2 hinge stile |
|                     | Keepers                         | 11              | 3 top, 3 bottom, 3 lock stile. 2 hinge stile |
| <b>DRAINAGE</b>     | 1" by 1/4" Weep slot with cover | 2               | Sill                                         |

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

A drawing of the test specimen is included in Section 12.

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### SECTION 10

#### TEST RESULTS AND RESULTS GRAPH

#### Test Option A

#### ASTM E90 AIRBORNE SOUND TRANSMISSION LOSS



|                      |                                                                                                                                                     |                         |         |                       |         |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------|-----------------------|---------|
| <b>TEST DATE</b>     | 11/16/18                                                                                                                                            |                         |         |                       |         |
| <b>DATA FILE NO.</b> | J0967.01A                                                                                                                                           |                         |         |                       |         |
| <b>CLIENT</b>        | Value Windows & Doors                                                                                                                               |                         |         |                       |         |
| <b>DESCRIPTION</b>   | Series/Model: Eurotek Tilt & Turn Window With 1-5/16" IG (1/4" Annealed Exterior, 11/16" Air Space, 3/8" Laminated Interior) Glass Temperature 75°F |                         |         |                       |         |
| <b>SPECIMEN AREA</b> | 1.80 m <sup>2</sup>                                                                                                                                 | <b>RECEIVE TEMP.</b>    | 19.3 °C | <b>SOURCE TEMP</b>    | 18.3 °C |
| <b>TECHNICIAN</b>    | DAP                                                                                                                                                 | <b>RECEIVE HUMIDITY</b> | 38%     | <b>SOURCE HUMIDIT</b> | 38%     |

| 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>CONFIDENCE<br>LIMIT | NUMBER<br>OF<br>DEFICIENCIES |
|---------------------|----------------------------------------|---------------------------------|-----------------------|------------------------|------------------------|----------------------------|------------------------------|
| 80                  | 44.8                                   | 5.1                             | 99                    | 69                     | 27                     | 1.31                       | -                            |
| 100                 | 37.4                                   | 4.8                             | 100                   | 71                     | 26                     | 1.41                       | -                            |
| 125                 | 46.0                                   | 5.0                             | 103                   | 73                     | 27                     | 0.88                       | 0                            |
| 160                 | 46.1                                   | 5.1                             | 104                   | 78                     | 22                     | 1.09                       | 5                            |
| 200                 | 38.1                                   | 6.4                             | 103                   | 72                     | 26                     | 0.62                       | 4                            |
| 250                 | 27.7                                   | 6.8                             | 102                   | 66                     | 31                     | 0.51                       | 2                            |
| 315                 | 23.6                                   | 6.9                             | 103                   | 65                     | 32                     | 0.59                       | 4                            |
| 400                 | 26.0                                   | 6.0                             | 103                   | 63                     | 35                     | 0.62                       | 4                            |
| 500                 | 18.7                                   | 5.3                             | 103                   | 60                     | 39                     | 0.30                       | 1                            |
| 630                 | 18.2                                   | 5.7                             | 103                   | 58                     | 41                     | 0.28                       | 0                            |
| 800                 | 22.1                                   | 5.8                             | 103                   | 56                     | 41                     | 0.37                       | 1                            |
| 1000                | 8.1                                    | 5.9                             | 103                   | 55                     | 42                     | 0.27                       | 1                            |
| 1250                | 7.2                                    | 6.1                             | 101                   | 52                     | 43                     | 0.18                       | 1                            |
| 1600                | 6.3                                    | 6.8                             | 100                   | 50                     | 45                     | 0.31                       | 0                            |
| 2000                | 4.7                                    | 8.2                             | 101                   | 52                     | 43                     | 0.30                       | 1                            |
| 2500                | 4.1                                    | 9.6                             | 101                   | 52                     | 41                     | 0.14                       | 3                            |
| 3150                | 4.4                                    | 11.2                            | 100                   | 49                     | 43                     | 0.19                       | 1                            |
| 4000                | 4.6                                    | 14.3                            | 100                   | 43                     | 48                     | 0.35                       | 0                            |
| 5000                | 5.0                                    | 19.0                            | 98                    | 40                     | 48                     | 0.43                       | -                            |
| <b>STC RATING</b>   | 40 (Sound Transmission Class)          |                                 |                       |                        |                        |                            |                              |
| <b>DEFICIENCIES</b> | 28 (Sum of Deficiencies)               |                                 |                       |                        |                        |                            |                              |
| <b>OITC RATING</b>  | 33 (Outdoor-Indoor Transmission Class) |                                 |                       |                        |                        |                            |                              |

- Notes:**
- 1) Receive Room levels less than 5 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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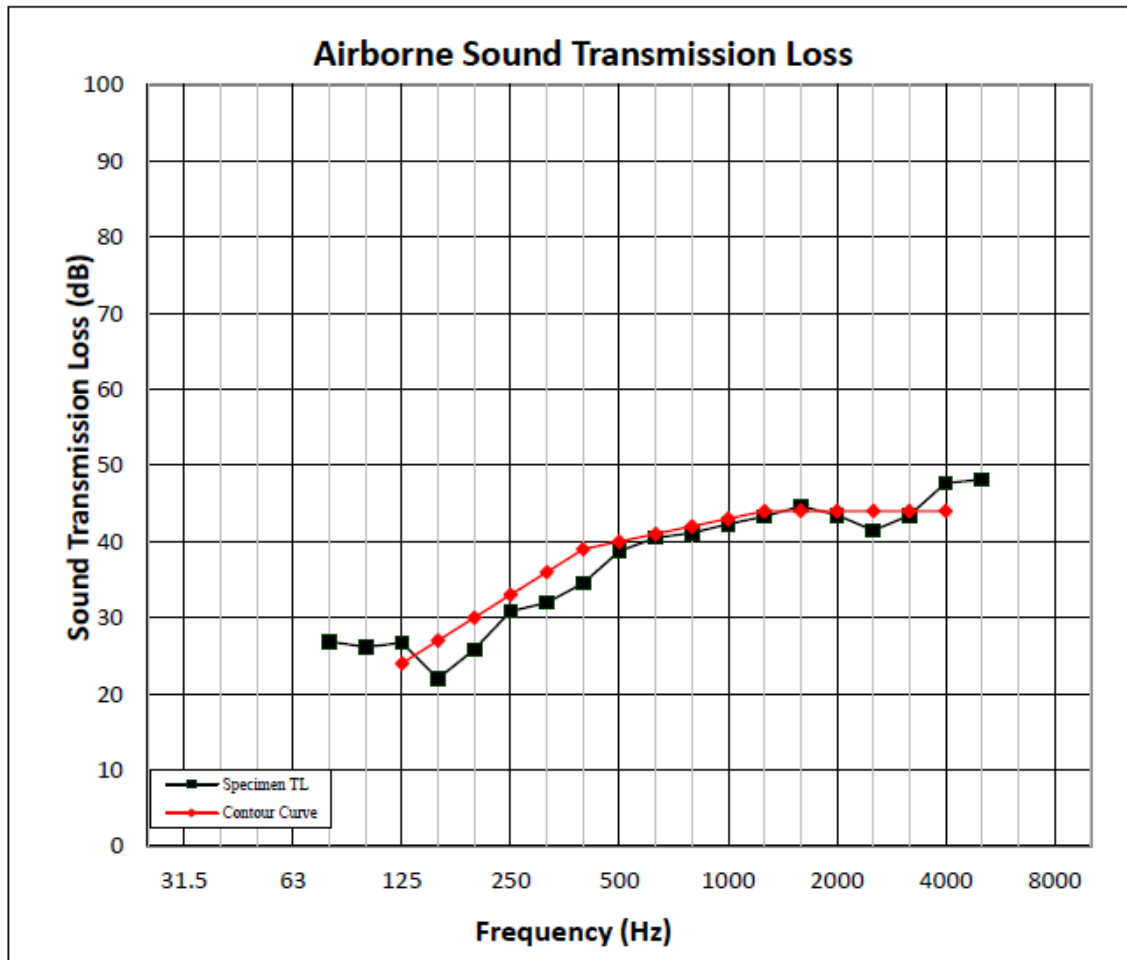
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### ASTM E90 AIRBORNE SOUND TRANSMISSION LOSS



|                      |                                                                                                                                                     |                         |         |                       |         |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------|-----------------------|---------|
| <b>TEST DATE</b>     | 11/16/18                                                                                                                                            |                         |         |                       |         |
| <b>DATA FILE NO.</b> | J0967.01A                                                                                                                                           |                         |         |                       |         |
| <b>CLIENT</b>        | Value Windows & Doors                                                                                                                               |                         |         |                       |         |
| <b>DESCRIPTION</b>   | Series/Model: Eurotek Tilt & Turn Window With 1-5/16" IG (1/4" Annealed Exterior, 11/16" Air Space, 3/8" Laminated Interior) Glass Temperature 75°F |                         |         |                       |         |
| <b>SPECIMEN AREA</b> | 1.80 m <sup>2</sup>                                                                                                                                 | <b>RECEIVE TEMP.</b>    | 19.3 °C | <b>SOURCE TEMP</b>    | 18.3 °C |
| <b>TECHNICIAN</b>    | DAP                                                                                                                                                 | <b>RECEIVE HUMIDITY</b> | 38%     | <b>SOURCE HUMIDIT</b> | 38%     |



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### Test Option B

#### ASTM E90 AIRBORNE SOUND TRANSMISSION LOSS



|               |                                                                                                                                                  |                  |         |                |         |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------|----------------|---------|
| TEST DATE     | 11/16/18                                                                                                                                         |                  |         |                |         |
| DATA FILE NO. | J0967.01B                                                                                                                                        |                  |         |                |         |
| CLIENT        | Value Windows & Doors                                                                                                                            |                  |         |                |         |
| DESCRIPTION   | Series/Model: Eurotek Tilt & Turn Window With 1-1/2" IG (3/8" Laminated Exterior, 3/4" Air Space, 3/8" Laminated Interior) Glass Temperature 75° |                  |         |                |         |
| SPECIMEN AREA | 1.80 m <sup>2</sup>                                                                                                                              | RECEIVE TEMP.    | 19.0 °C | SOURCE TEMP    | 18.1 °C |
| TECHNICIAN    | DAP                                                                                                                                              | RECEIVE HUMIDITY | 36%     | SOURCE HUMIDIT | 34%     |

| 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>CONFIDENCE<br>LIMIT | NUMBER<br>OF<br>DEFICIENCIES |
|---------------------|----------------------------------------|---------------------------------|-----------------------|------------------------|------------------------|----------------------------|------------------------------|
| 80                  | 43.3                                   | 4.4                             | 99                    | 69                     | 27                     | 1.38                       | -                            |
| 100                 | 35.0                                   | 5.0                             | 101                   | 71                     | 26                     | 1.40                       | -                            |
| 125                 | 41.3                                   | 5.4                             | 104                   | 74                     | 26                     | 1.24                       | 0                            |
| 160                 | 44.8                                   | 5.1                             | 104                   | 72                     | 28                     | 0.72                       | 1                            |
| 200                 | 37.8                                   | 6.2                             | 102                   | 67                     | 31                     | 0.54                       | 1                            |
| 250                 | 26.2                                   | 7.2                             | 102                   | 62                     | 35                     | 0.55                       | 0                            |
| 315                 | 20.5                                   | 7.0                             | 102                   | 61                     | 36                     | 0.64                       | 2                            |
| 400                 | 21.6                                   | 6.1                             | 103                   | 60                     | 37                     | 0.61                       | 4                            |
| 500                 | 17.7                                   | 5.3                             | 103                   | 58                     | 40                     | 0.35                       | 2                            |
| 630                 | 19.3                                   | 5.7                             | 103                   | 57                     | 41                     | 0.32                       | 2                            |
| 800                 | 22.2                                   | 5.8                             | 103                   | 56                     | 41                     | 0.31                       | 3                            |
| 1000                | 9.8                                    | 6.0                             | 103                   | 55                     | 42                     | 0.26                       | 3                            |
| 1250                | 7.3                                    | 6.1                             | 100                   | 51                     | 43                     | 0.16                       | 3                            |
| 1600                | 6.0                                    | 6.9                             | 100                   | 48                     | 46                     | 0.28                       | 0                            |
| 2000                | 5.7                                    | 8.4                             | 101                   | 49                     | 46                     | 0.33                       | 0                            |
| 2500                | 5.0                                    | 9.8                             | 101                   | 50                     | 44                     | 0.09                       | 2                            |
| 3150                | 4.8                                    | 11.6                            | 100                   | 46                     | 45                     | 0.21                       | 1                            |
| 4000                | 4.7                                    | 14.7                            | 100                   | 42                     | 49                     | 0.34                       | 0                            |
| 5000                | 5.2                                    | 19.6                            | 98                    | 39                     | 48                     | 0.40                       | -                            |
| <b>STC RATING</b>   | 42 (Sound Transmission Class)          |                                 |                       |                        |                        |                            |                              |
| <b>DEFICIENCIES</b> | 24 (Sum of Deficiencies)               |                                 |                       |                        |                        |                            |                              |
| <b>OITC RATING</b>  | 35 (Outdoor-Indoor Transmission Class) |                                 |                       |                        |                        |                            |                              |

- Notes:**
- 1) Receive Room levels less than 5 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 VALUE WINDOWS & DOORS

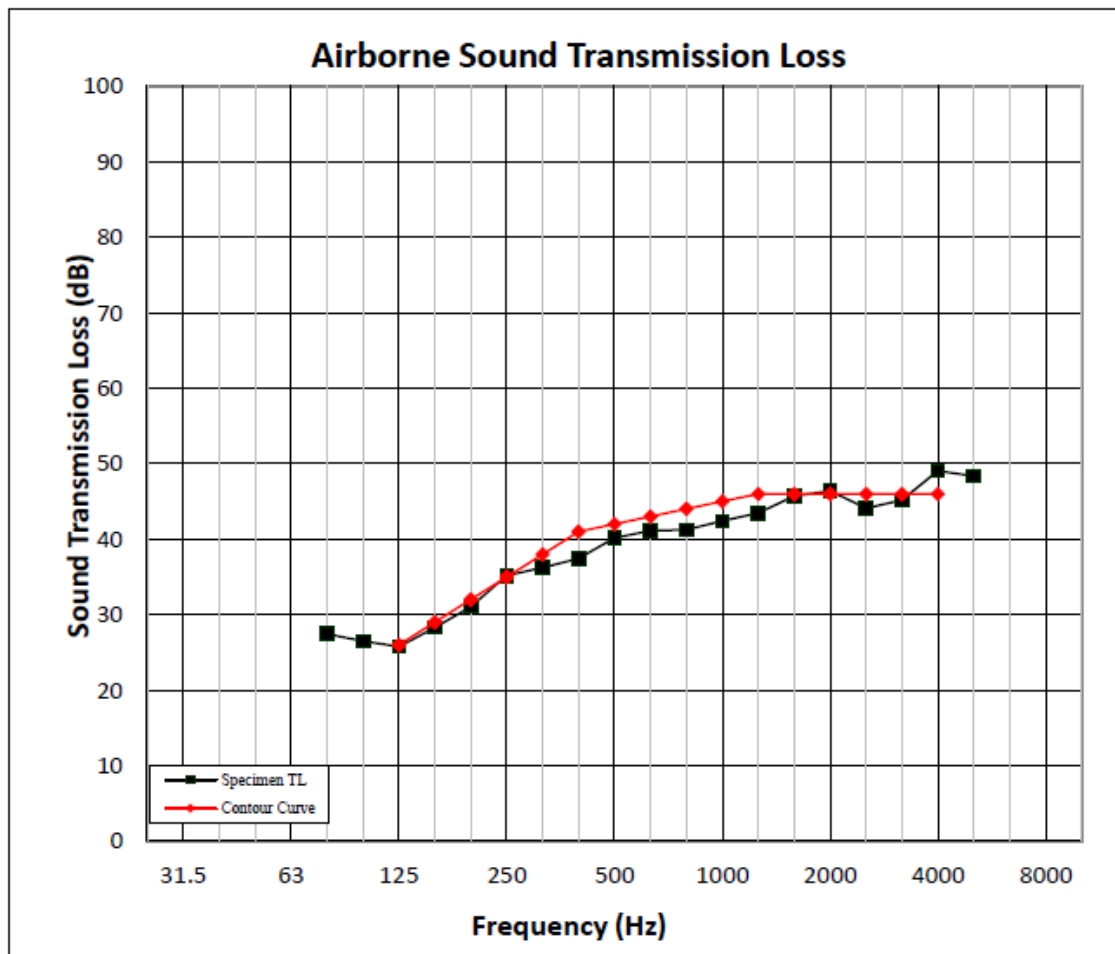
Report No.: J0967.01-303-11

Date: 11/27/18

### ASTM E90 AIRBORNE SOUND TRANSMISSION LOSS



|                      |                                                                                                                                                  |                         |         |                       |         |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------|-----------------------|---------|
| <b>TEST DATE</b>     | 11/16/18                                                                                                                                         |                         |         |                       |         |
| <b>DATA FILE NO.</b> | J0967.01B                                                                                                                                        |                         |         |                       |         |
| <b>CLIENT</b>        | Value Windows & Doors                                                                                                                            |                         |         |                       |         |
| <b>DESCRIPTION</b>   | Series/Model: Eurotek Tilt & Turn Window With 1-1/2" IG (3/8" Laminated Exterior, 3/4" Air Space, 3/8" Laminated Interior) Glass Temperature 75° |                         |         |                       |         |
| <b>SPECIMEN AREA</b> | 1.80 m <sup>2</sup>                                                                                                                              | <b>RECEIVE TEMP.</b>    | 19.0 °C | <b>SOURCE TEMP</b>    | 18.1 °C |
| <b>TECHNICIAN</b>    | DAP                                                                                                                                              | <b>RECEIVE HUMIDITY</b> | 36%     | <b>SOURCE HUMIDIT</b> | 34%     |



## TEST REPORT FOR VALUE WINDOWS & DOORS

Report No.: J0967.01-303-11

Date: 11/27/18

### Test Option C

#### ASTM E90 AIRBORNE SOUND TRANSMISSION LOSS



|               |                                                                                                                                      |                  |         |                |         |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------|---------|----------------|---------|
| TEST DATE     | 11/16/18                                                                                                                             |                  |         |                |         |
| DATA FILE NO. | J0967.01C                                                                                                                            |                  |         |                |         |
| CLIENT        | Value Windows & Doors                                                                                                                |                  |         |                |         |
| DESCRIPTION   | Eurotek Tilt & Turn Window With 1-1/4" IG (1/4" Annealed Exterior, 11/16" Air Space, 5/16" Laminated Interior) Glass Temperature 75° |                  |         |                |         |
| SPECIMEN AREA | 1.80 m <sup>2</sup>                                                                                                                  | RECEIVE TEMP.    | 19.0 °C | SOURCE TEMP    | 18.1 °C |
| TECHNICIAN    | DAP                                                                                                                                  | RECEIVE HUMIDITY | 36%     | SOURCE HUMIDIT | 34%     |

| 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>CONFIDENCE<br>LIMIT | NUMBER<br>OF<br>DEFICIENCIES |
|---------------------|----------------------------------------|---------------------------------|-----------------------|------------------------|------------------------|----------------------------|------------------------------|
| 80                  | 43.4                                   | 4.9                             | 99                    | 68                     | 28                     | 1.55                       | -                            |
| 100                 | 35.1                                   | 4.7                             | 101                   | 72                     | 26                     | 1.44                       | -                            |
| 125                 | 41.2                                   | 5.1                             | 104                   | 74                     | 26                     | 0.94                       | 0                            |
| 160                 | 44.8                                   | 5.3                             | 104                   | 78                     | 22                     | 0.96                       | 5                            |
| 200                 | 37.5                                   | 6.4                             | 102                   | 72                     | 25                     | 0.66                       | 5                            |
| 250                 | 25.6                                   | 6.8                             | 102                   | 66                     | 31                     | 0.52                       | 2                            |
| 315                 | 20.8                                   | 6.8                             | 102                   | 65                     | 32                     | 0.61                       | 4                            |
| 400                 | 21.1                                   | 6.1                             | 103                   | 63                     | 34                     | 0.65                       | 5                            |
| 500                 | 17.3                                   | 5.3                             | 103                   | 60                     | 39                     | 0.31                       | 1                            |
| 630                 | 19.1                                   | 5.7                             | 103                   | 58                     | 40                     | 0.21                       | 1                            |
| 800                 | 22.6                                   | 5.8                             | 103                   | 56                     | 41                     | 0.34                       | 1                            |
| 1000                | 10.0                                   | 6.0                             | 103                   | 55                     | 42                     | 0.27                       | 1                            |
| 1250                | 5.7                                    | 6.2                             | 101                   | 52                     | 43                     | 0.18                       | 1                            |
| 1600                | 5.0                                    | 6.9                             | 100                   | 49                     | 45                     | 0.31                       | 0                            |
| 2000                | 4.3                                    | 8.4                             | 101                   | 51                     | 44                     | 0.21                       | 0                            |
| 2500                | 3.9                                    | 9.8                             | 101                   | 52                     | 42                     | 0.14                       | 2                            |
| 3150                | 4.3                                    | 11.6                            | 100                   | 48                     | 43                     | 0.20                       | 1                            |
| 4000                | 4.6                                    | 14.8                            | 100                   | 43                     | 48                     | 0.36                       | 0                            |
| 5000                | 5.0                                    | 19.9                            | 98                    | 39                     | 48                     | 0.36                       | -                            |
| <b>STC RATING</b>   | 40 (Sound Transmission Class)          |                                 |                       |                        |                        |                            |                              |
| <b>DEFICIENCIES</b> | 29 (Sum of Deficiencies)               |                                 |                       |                        |                        |                            |                              |
| <b>OITC RATING</b>  | 32 (Outdoor-Indoor Transmission Class) |                                 |                       |                        |                        |                            |                              |

- Notes:**
- 1) Receive Room levels less than 5 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 VALUE WINDOWS & DOORS

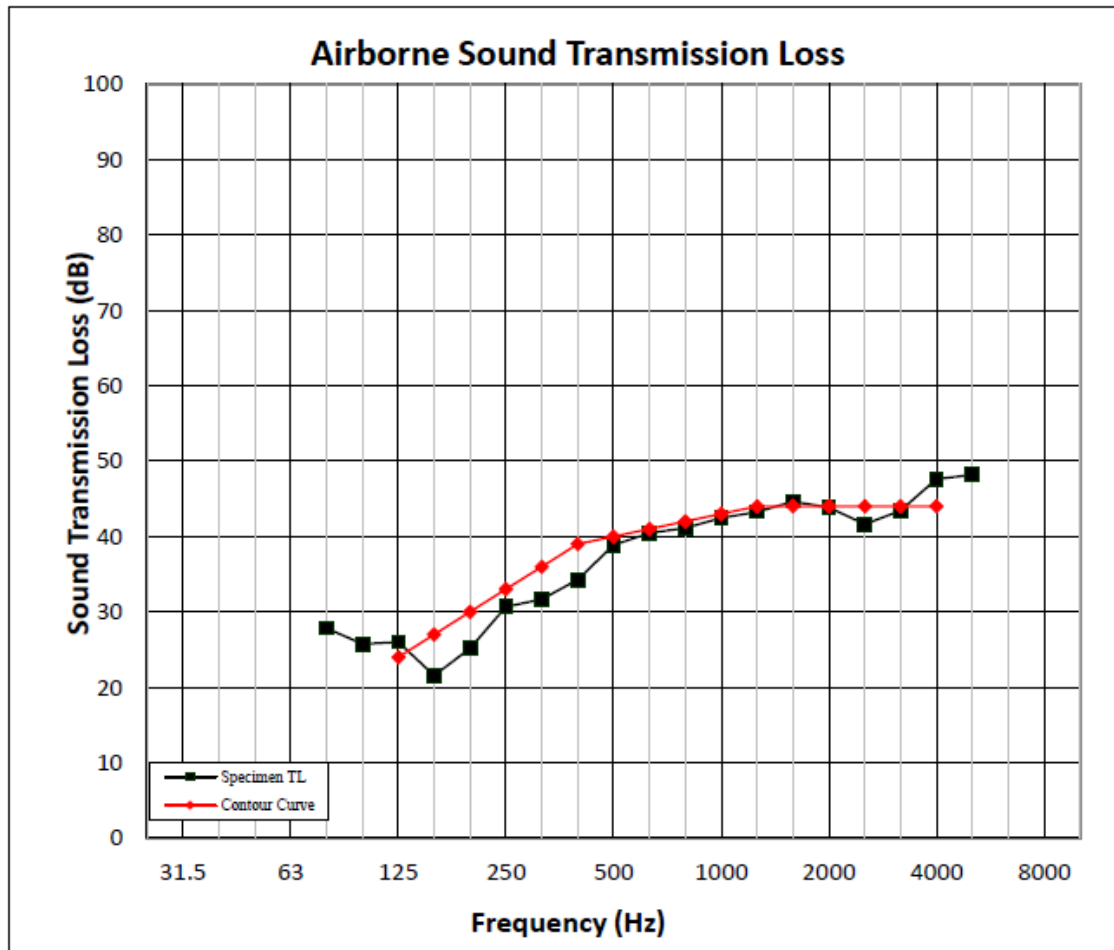
Report No.: J0967.01-303-11

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### ASTM E90 AIRBORNE SOUND TRANSMISSION LOSS



|                      |                                                                                                                                      |                         |         |                       |         |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------|-----------------------|---------|
| <b>TEST DATE</b>     | 11/16/18                                                                                                                             |                         |         |                       |         |
| <b>DATA FILE NO.</b> | J0967.01C                                                                                                                            |                         |         |                       |         |
| <b>CLIENT</b>        | Value Windows & Doors                                                                                                                |                         |         |                       |         |
| <b>DESCRIPTION</b>   | Eurotek Tilt & Turn Window With 1-1/4" IG (1/4" Annealed Exterior, 11/16" Air Space, 5/16" Laminated Interior) Glass Temperature 75° |                         |         |                       |         |
| <b>SPECIMEN AREA</b> | 1.80 m <sup>2</sup>                                                                                                                  | <b>RECEIVE TEMP.</b>    | 19.0 °C | <b>SOURCE TEMP</b>    | 18.1 °C |
| <b>TECHNICIAN</b>    | DAP                                                                                                                                  | <b>RECEIVE HUMIDITY</b> | 36%     | <b>SOURCE HUMIDIT</b> | 34%     |



## TEST REPORT FOR VALUE WINDOWS & DOORS

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### SECTION 11 PHOTOGRAPHS

#### Test Option A



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



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



## TEST REPORT FOR VALUE WINDOWS & DOORS

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### Test Option B



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



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

## TEST REPORT FOR VALUE WINDOWS & DOORS

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### Test Option C



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




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

## TEST REPORT FOR VALUE WINDOWS & DOORS

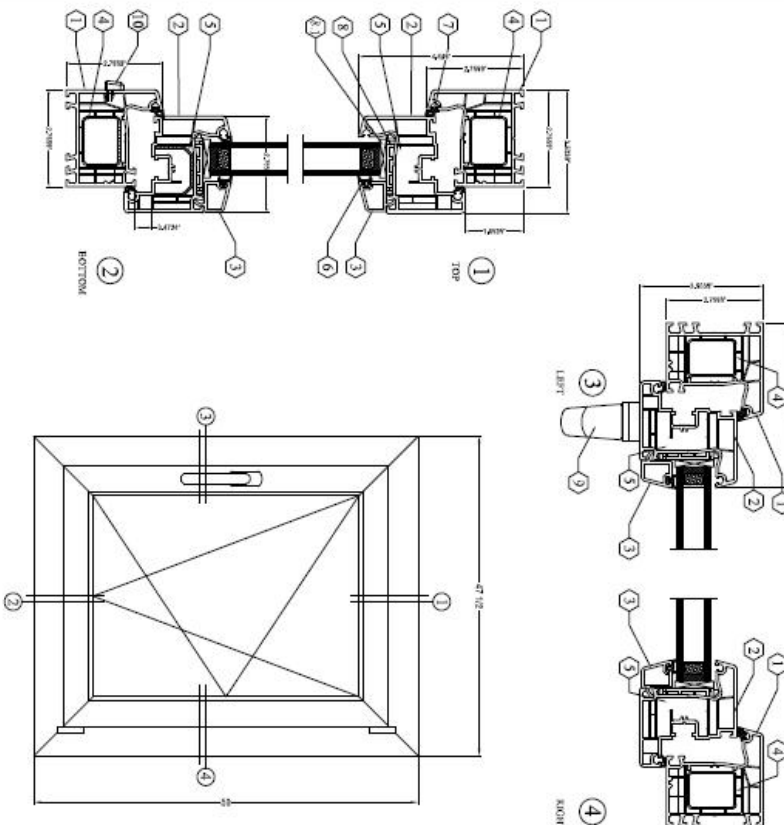
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### SECTION 12 DRAWING(S)

|                 |     |                       |  |                      |  |                 |            |                 |            |                                                                                     |                 |
|-----------------|-----|-----------------------|--|----------------------|--|-----------------|------------|-----------------|------------|-------------------------------------------------------------------------------------|-----------------|
| <b>Standard</b> |     | <b>Sectional Area</b> |  | <b>Unspec</b>        |  | <b>Designed</b> |            | <b>Checked</b>  |            | <b>File No.:</b>                                                                    | <b>STC Test</b> |
| <b>Material</b> | PVC | <b>Theor. Weight</b>  |  | <b>TK. Tolerance</b> |  | <b>Drawn</b>    | Benson Xie | <b>Approved</b> | Mapping    |  |                 |
|                 |     |                       |  |                      |  |                 |            |                 | 11/19/2018 |                                                                                     |                 |



**CUSTOMER NAME:** Value Wholesaler

**Series #:** 70

**Sectional Drawing** EUROTEK\_WINDOW\_TILT & TURN


  

| BOM   |                   |                             |     |          |             |
|-------|-------------------|-----------------------------|-----|----------|-------------|
| INDEX | PART NUMBER       | DESCRIPTION                 | QTY | VENDOR   | MATERIAL    |
| 1     | 140497            | FRAMES/304 400              | 4   | ALUS/KAT | PVC         |
| 2     | 140529            | 5X8/27/304 400              | 4   | ALUS/KAT | PVC         |
| 3     | 120612/120617/100 | 55 Carpentier/2m Glass Bond | 4   | ALUS/KAT | PVC         |
| 4     | 320503            | REINFORCEMENT 1.25 304      | 4   | ALUS/KAT | Unspecified |
| 5     | 240421            | REINFORCEMENT 1.5 304       | 4   | ALUS/KAT | Unspecified |
| 6     | 403113            | REPAIR GASKETS              | 1   | ALUS/KAT | EPDM        |
| 7     | 440498            | DRAINER STANDARDS           | 2   | ALUS/KAT | EPDM        |
| 8     | 678201            | Carpentier/Black            | 8   | ALUS/KAT | PVC         |
| 11    | 659493            | Clings 20x30 - Semi Opns    | 3   | ALUS/KAT | PVC         |
| 8     | 34116             | WINDOW HANDLE               | 1   | MADO     | SM          |
| 10    | 64002             | WEAR HOLE COVER             | 2   | ALUS/KAT | PVC         |
| 11    | Unspecified       | They need to be reviewed    |     | VAL      | GM          |

| IG Combination                        | Qty (Set) |
|---------------------------------------|-----------|
| 1/4 LE3+8.76 OS41 LAM1                | 1         |
| 1/4 LE3+9.52 OS71 LAM1                | 1         |
| 9.52 OS71 LE3 LAM1+9.52 OS71 CLR LAM1 | 1         |



Report #: 0967

Date: 11/27/18

checked by: [Signature]



## TEST REPORT FOR VALUE WINDOWS & DOORS

Report No.: J0967.01-303-11

Date: 11/27/18

|          |                   |          |        |       |         |          |         |
|----------|-------------------|----------|--------|-------|---------|----------|---------|
| Standard | Section No.       | Volume   | Design | Drawn | Checked | File No. | 22-3023 |
| Material | Customer Part No. | Part No. | Design | Drawn | Checked | File No. | 22-3023 |

Customer Name: Value Wholesale

Section Drawing

EXPOSED SURFACE  
1:1

SCALE: 2 : 1  
38 - 39mm

PK No: 120632

|          |                   |          |        |       |         |          |         |
|----------|-------------------|----------|--------|-------|---------|----------|---------|
| Standard | Section No.       | Volume   | Design | Drawn | Checked | File No. | 22-3023 |
| Material | Customer Part No. | Part No. | Design | Drawn | Checked | File No. | 22-3023 |

Customer Name: Value Wholesale

Section Drawing

intertek  
Total Quality. Assured.

Report #: J0967  
Date: 11/27/18  
Verified by: *LSH*

|          |                   |          |        |       |         |          |         |
|----------|-------------------|----------|--------|-------|---------|----------|---------|
| Standard | Section No.       | Volume   | Design | Drawn | Checked | File No. | 22-3023 |
| Material | Customer Part No. | Part No. | Design | Drawn | Checked | File No. | 22-3023 |

Customer Name: Value Wholesale

Section Drawing



Total Quality. Assured.

25800 Commercentre Drive  
Lake Forest, California 92630

Telephone: 949-460-9600  
Facsimile: 717-764-4129  
[www.intertek.com/building](http://www.intertek.com/building)

## TEST REPORT FOR VALUE WINDOWS & DOORS

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### SECTION 13

#### REVISION LOG

| REVISION # | DATE     | PAGES | REVISION              |
|------------|----------|-------|-----------------------|
| 0          | 11/27/18 | N/A   | Original Report Issue |