

# ALUMINTECHNO JLLC THERMAL PERFORMANCE TEST REPORT

#### **SCOPE OF WORK**

**W62 CASEMENT** 

## **REPORT NUMBER**

I5155.03-116-46 RO

#### **TEST DATE**

06/07/18

## **ISSUE DATE**

10/25/18

#### RECORD RETENTION END DATE

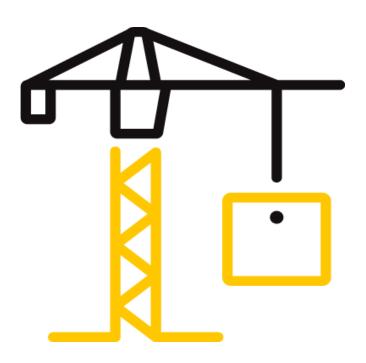
06/07/23

## **PAGES**

20

#### **DOCUMENT CONTROL NUMBER**

ATI 00025(a) (01/15/18) RTTDS-R-AMER-Test-2822(a) ©2017 INTERTEK





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#### **TEST REPORT FOR ALUMINTECHNO JLLC**

Report No.: I5155.03-116-46 RO

Date: 10/25/18

#### **REPORT ISSUED TO**

# ALUMINTECHNO JLLC

Selitskogo Str. 12-211

220075 FEZ "Minsk", Minsk Region, Minsk Area, Belarus

#### **SECTION 1**

**SCOPE** 

SERIES/MODEL: W62 Casement

**TYPE: Casement** 

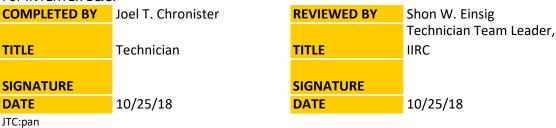
Intertek Building & Construction (Intertek B&C) was contracted by AVRAMS INC. to evaluate the thermal performance per NFRC 102-2017. The purpose of this testing was to evaluate the U-Factor performance. This report is reissued in the name of ALUMINTECHNO JLLC through written authorization of AVRAMS INC., to whom the original report was rendered. The original AVRAMS INC. report number is I5155.01-116-46. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at Intertek B&C test facility in York, Pennsylvania. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

#### **SECTION 2**

#### **SUMMARY OF TEST RESULTS**

Standardized U-factor (Ust): 0.35 Btu/hr·ft<sup>2</sup>·F (CTS Method)

For INTERTEK B&C:



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#### **TEST REPORT FOR ALUMINTECHNO JLLC**

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#### **SECTION 3**

#### **TEST SPECIMEN SUMMARY**

| SERIES/MODEL             | W62 Casement                                          |
|--------------------------|-------------------------------------------------------|
| TYPE                     | Casement                                              |
| OVERALL SIZE             | 47-1/4" x 59" (1200 mm x 1499 mm) (Non-Standard Size) |
| NFRC STANDARD SIZE       | 23.6" x 59.1" (600 mm wide x 1500 mm high)            |
| TEST SAMPLE SUBMITTED BY | Avrams Inc Brooklyn, New York                         |
|                          |                                                       |

## **SECTION 4**

#### **TEST METHOD**

The specimens were evaluated in accordance with the following:

**NFRC 102-2017**, Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems

# **SECTION 5**

## **MATERIAL SOURCE/INSTALLATION**

The test specimen was provided by Avrams Inc. - Brooklyn, New York. Representative samples of the test specimen will be retained by Intertek B&C for a minimum of five years from the test completion date.

#### **Test Chamber Installation**

The test sample was installed in a vertical orientation, the exterior of the specimen was exposed to the cold side.

#### **SECTION 6**

#### **LIST OF OFFICIAL OBSERVERS**

| NAME               | COMPANY      |  |
|--------------------|--------------|--|
| Joel T. Chronister | Intertek B&C |  |
| Joel T. Chronister | Intertek B&C |  |
| Shon W. Einsig     | Intertek B&C |  |



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# **TEST REPORT FOR ALUMINTECHNO JLLC**

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# **SECTION 7**

## **TEST SAMPLE DESCRIPTION**

## **Frame**

| MATERIAL         | AT (0.65"): Aluminum with Thermal Breaks - All Members |  |  |  |
|------------------|--------------------------------------------------------|--|--|--|
| SIZE             | 47-1/4" x 59" (Non-Standard Size)                      |  |  |  |
| DAYLIGHT OPENING | N/A GLAZING METHOD N/A                                 |  |  |  |
| EXTERIOR COLOR   | Black EXTERIOR FINISH Paint                            |  |  |  |
| INTERIOR COLOR   | White INTERIOR FINISH Paint                            |  |  |  |
| CORNER JOINERY   | Mitered / Keys & Stakes / Sealed                       |  |  |  |

## Vent

| MATERIAL         | AT (0.65"): Aluminum with Thermal Breaks - All Members |  |  |
|------------------|--------------------------------------------------------|--|--|
| SIZE             | 43-3/4" x 55-1/2"                                      |  |  |
| DAYLIGHT OPENING | 37-1/2" x 49-3/8" GLAZING METHOD Interior              |  |  |
| EXTERIOR COLOR   | Black EXTERIOR FINISH Paint                            |  |  |
| INTERIOR COLOR   | White INTERIOR FINISH Paint                            |  |  |
| CORNER JOINERY   | Mitered / Keys & Stakes / Sealed                       |  |  |

# **Glazing Information**

| LAYER 1         | 0.33" | (5/32" Clear / 0.030" PVB / 5/32" Pilkington Suncool 70/35<br>Laminated | 6 (e=0.021, #2) |
|-----------------|-------|-------------------------------------------------------------------------|-----------------|
| GAP 1           | 0.84" | TS-D: Thermix Thermo-Plastic Spacer                                     | 95% Argon*      |
| LAYER 2 1/4"    |       | Clear                                                                   |                 |
| GAS FILL METHOD |       | Dual-Probe Method*                                                      |                 |

<sup>\*</sup>Stated per Client/Manufacturer N/A Non-Applicable



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# **TEST REPORT FOR ALUMINTECHNO JLLC**

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# **SECTION 7 (CONTINUED)**

# **TEST SAMPLE DESCRIPTION (CONTINUED)**

# Weatherstripping

| DESCRIPTION                            | QUANTITY | LOCATION                   |
|----------------------------------------|----------|----------------------------|
| EPDM preset gasket                     | 1 row    | Exterior glazing perimeter |
| EPDM wedge gasket                      | 1 row    | Interior glazing perimeter |
| Center gasket                          | 1 row    | Frame perimeter            |
| Single-fin flexible hollow bulb gasket | 1 row    | Vent perimeter             |

#### **Hardware**

| DESCRIPTION               | QUANTITY | LOCATION                                   |
|---------------------------|----------|--------------------------------------------|
| Multi-point lock assembly | 1        | Lock stile                                 |
| Metal keeper              | 7        | Three per lock jamb and sill, one per head |
| Metal hinges              | 3        | Hinge jamb/stile                           |
| Aluminum watershed        | 1        | Bottom rail                                |

# Drainage

| DRAINAGE METHOD     | SIZE          | QUANTITY | LOCATION  |
|---------------------|---------------|----------|-----------|
| Weepslot with cover | 1.00" x 0.28" | 2        | Sill face |



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# **TEST REPORT FOR ALUMINTECHNO JLLC**

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#### **SECTION 8**

# THERMAL TRANSMITTANCE (U-FACTOR): MEASURED TEST DATA

## **Heat Flows**

| 1. | Total Measured Input into Metering Box (Qtotal)    | 571.10              | Btu/hr                      |
|----|----------------------------------------------------|---------------------|-----------------------------|
| 2. | Surround Panel Heat Flow (Qsp)                     | 51.67               | Btu/hr                      |
| 3. | Surround Panel Thickness                           | 4.00                | inches                      |
| 4. | Surround Panel Conductance                         | 0.0472              | $Btu/hr \cdot ft^2 \cdot F$ |
| 5. | Metering Box Wall Heat Flow (Qmb)                  | 9.14                | Btu/hr                      |
| 6. | EMF vs Heat Flow Equation (equivalent information) | 0.0124*EMF + -0.206 |                             |
| 7. | Flanking Loss Heat Flow (Qfl)                      | 13.59               | Btu/hr                      |
| 8. | Net Specimen Heat Loss (Qs)                        | 496.71              | Btu/hr                      |
|    |                                                    |                     |                             |

#### **Areas**

| 1. | Test Specimen Projected Area (As)                    | 19.36 ft <sup>2</sup> |
|----|------------------------------------------------------|-----------------------|
| 2. | Test Specimen Interior Total (3-D) Surface Area (Ah) | 21.09 ft <sup>2</sup> |
| 3. | Test Specimen Exterior Total (3-D) Surface Area (Ac) | 19.80 ft <sup>2</sup> |
| 4. | Metering Box Opening Area (Amb)                      | 36.11 ft <sup>2</sup> |
| 5. | Metering Box Baffle Area (Ab1)                       | 33.94 ft <sup>2</sup> |
| 6. | Surround Panel Interior Exposed Area (Asp)           | 16.75 ft <sup>2</sup> |

# **Test Conditions**

| 1. | Average Metering Room Air Temperature (th)               | 69.80 F                        |
|----|----------------------------------------------------------|--------------------------------|
| 2. | Average Cold Side Air Temperature (tc)                   | -0.40 F                        |
| 3. | Average Guard/Environmental Air Temperature              | 71.25 F                        |
| 4. | Metering Room Average Relative Humidity                  | 8.54 %                         |
| 5. | Metering Room Maximum Relative Humidity                  | 8.62 %                         |
| 6. | Metering Room Minimum Relative Humidity                  | 8.48 %                         |
| 7. | Measured Cold Side Wind Velocity (Perpendicular Flow)    | 12.66 mph                      |
| 8. | Measured Warm Side Wind Velocity (Parallel Flow)         | N/A mph                        |
| 9. | Measured Static Pressure Difference Across Test Specimen | 0.00" ± 0.04" H <sub>2</sub> O |

# **Average Surface Temperatures**

| 1. | Metering Room Surround Panel | 66.13 F |
|----|------------------------------|---------|
| 2. | Cold Side Surround Panel     | 0.76 F  |

#### **Results**

| 1. | Thermal Transmittance of Test Specimen (Us)               | 0.37 Btu/hr·ft <sup>2</sup> ·F |
|----|-----------------------------------------------------------|--------------------------------|
| 2. | Standardized Thermal Transmittance of Test Specimen (Ust) | 0.35 Btu/hr·ft <sup>2</sup> ·F |



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#### **SECTION 9**

# THERMAL TRANSMITTANCE (U-FACTOR): CALCULATED TEST DATA

# **CTS Method Results**

| 1.  | Warm Side Emittance of Glass (e1)                 | 0.84                                              |
|-----|---------------------------------------------------|---------------------------------------------------|
| 2.  | Cold Side Emittance of Glass                      | 0.84                                              |
| 3.  | Warm Side Frame Emittance*                        | 0.90                                              |
| 4.  | Cold Side Frame Emittance*                        | 0.90                                              |
| 5.  | Warm Side Sash/Panel/Vent Emittance*              | 0.90                                              |
| 6.  | Cold Side Sash/Panel/Vent Emittance*              | 0.90                                              |
| 7.  | Warm Side Baffle Emittance (eb1)                  | 0.92                                              |
| 8.  | Cold Side Baffle Emittance (eb2)                  | N/A                                               |
| 9.  | Equivalent Warm Side Surface Temperature (t1)     | 51.62 F                                           |
| 10. | Equivalent Cold Side Surface Temperature (t2)     | 4.61 F                                            |
| 11. | Warm Side Baffle Surface Temperature              | 68.10 F                                           |
| 12. | Cold Side Baffle Surface Temperature              | N/A F                                             |
| 13. | Measured Warm Side Surface Conductance (hh)       | 1.41 Btu/hr·ft <sup>2</sup> ·F                    |
| 14. | Measured Cold Side Surface Conductance (hc)       | 5.12 Btu/hr∙ft <sup>2</sup> ∙F                    |
| 15. | Test Specimen Thermal Conductance (Cs)            | 0.55 Btu/hr·ft <sup>2</sup> ·F                    |
| 16. | Convection Coefficient (Kc)                       | 0.35 Btu/(hr·ft <sup>2</sup> ·F <sup>1.25</sup> ) |
| 17. | Radiative Test Specimen Heat Flow (Qr1)           | 240.01 Btu/hr                                     |
| 18. | Conductive Test Specimen Heat Flow (Qc1)          | 256.70 Btu/hr                                     |
| 19. | Radiative Heat Flux of Test Specimen (qr1)        | 12.40 Btu/hr·ft <sup>2</sup> ·F                   |
| 20. | Convective Heat Flux of Test Specimen (qc1)       | 13.26 Btu/hr·ft <sup>2</sup> ·F                   |
| 21. | Standardized Warm Side Surface Conductance (hsth) | 1.23 Btu/hr∙ft <sup>2</sup> ∙F                    |
| 22. | Standardized Cold Side Surface Conductance (hstc) | 5.28 Btu/hr·ft <sup>2</sup> ·F                    |
| 23. | Standardized Thermal Transmittance (Ust)          | 0.35 Btu/hr·ft <sup>2</sup> ·F                    |
|     |                                                   |                                                   |

<sup>\*</sup>Stated per NFRC 101

## **SECTION 10**

## **TEST DURATION**

- 1. The environmental systems were started at 13:21 hours, 06/06/18.
- 2. The test parameters were considered stable for two consecutive four hour test periods from 21:56 hours, 06/06/18 to 05:56 hours, 06/07/18.
- 3. The thermal performance test results were derived from 01:56 hours, 06/07/18 to 05:56 hours, 06/07/18.

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#### **TEST REPORT FOR ALUMINTECHNO JLLC**

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#### **SECTION 11**

#### **GLAZING DEFLECTION**

|                                                                                                | VENT<br>EXT. / INT |
|------------------------------------------------------------------------------------------------|--------------------|
| EDGE GAP WIDTH                                                                                 | 0.84"              |
| <b>ESTIMATED CENTER GAP WIDTH</b> upon receipt of specimen in laboratory (after stabilization) | 0.97"              |
| <b>CENTER GAP WIDTH</b> at laboratory ambient conditions on day of testing                     | 0.97"              |
| CENTER GAP WIDTH at test conditions                                                            | 0.81"              |

Glass collapse determined using a digital glass and air space meter

The sample was inspected for the formation of frost or condensation, which may influence the surface temperature measurements. The sample showed no evidence of condensation/frost at the conclusion of the test.

"This test method does not include procedures to determine the heat flow due to either air movement through the specimen or solar radiation effects. As a consequence, the thermal transmittance results obtained do not reflect performances which are expected from field installations due to not accounting for solar radiation, air leakage effects, and the thermal bridge effects that have the potential to occur due to the specific design and construction of the fenestration system opening. The latter can only be determined by in-situ measurements. Therefore, it is important to recognize that the thermal transmittance results obtained from this test method are for ideal laboratory conditions and should only be used for fenestration product comparisons and as input to thermal performance analyses which also include solar, air leakage and thermal bridge effects."

Required annual calibrations for the Intertek B&C, 'thermal test chamber' (ICN 000001) in York, Pennsylvania were last conducted in May 2018 in accordance with Intertek B&C calibration procedure. A CTS Calibration verification was performed March 2018. A Metering Box Wall Transducer and Surround Panel Flanking Loss Characterization was performed April 2018.

The reported Standardized Thermal Transmittance (Ust) was determined using CTS Method, per Section 9.2(A) of NFRC 102.

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#### **SECTION 12**

#### **CTS CALIBRATION DATA**

| 1.  | CTS Test Date                               | 05/05/17                            |
|-----|---------------------------------------------|-------------------------------------|
| 2.  | CTS Size                                    | 21.53 ft <sup>2</sup>               |
| 3.  | CTS Glass/Core Conductance                  | 0.42 Btu/hr·ft <sup>2</sup> ·F      |
| 4.  | Warm Side Air Temperature                   | 69.80 F                             |
| 5.  | Cold Side Air Temperature                   | -0.40 F                             |
| 6.  | Warm Side Average Surface Temperature       | 54.32 F                             |
| 7.  | Cold Side Average Surface Temperature       | 3.79 F                              |
| 8.  | Convection Coefficient (Kc)                 | 0.35 Btu/(hr·ft $^2$ ·F $^{1.25}$ ) |
| 9.  | Measured Cold Side Surface Conductance (hc) | 5.12 Btu/hr·ft <sup>2</sup> ·F      |
| 10. | Measured Thermal Transmittance              | 0.31 Btu/hr·ft <sup>2</sup> ·F      |

ANSI/NCSL Z540-2-1997 type B uncertainty for this test was 1.90%.

"Ratings included in this report are for submittal to an NFRC licensed IA for certification purposes and are not meant to be used for labeling purposes. Only those values identified on a valid Certification Authorization Report (CAR) are to be used for labeling purposes."

The direction of heat transfer was from the interior (warm side) to the exterior (cold side) of the specimen. The ratings were rounded in accordance to NFRC 601, NFRC Unit and Measurement Policy. The data acquisition frequency is 5 minutes.

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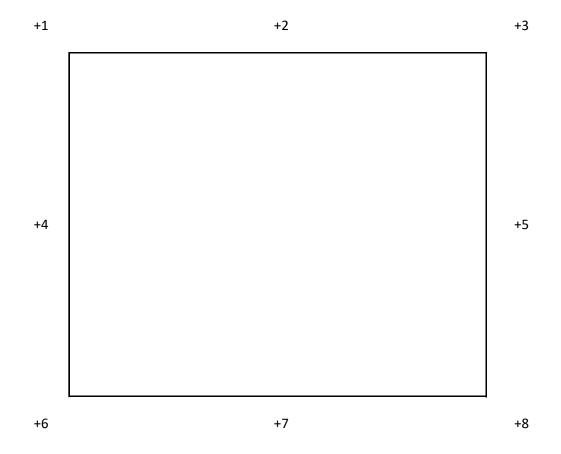
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# **SECTION 13**

## **SURROUND PANEL WIRING DIAGRAM**





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# **TEST REPORT FOR ALUMINTECHNO JLLC**

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# **SECTION 14**

## **BAFFLE WIRING DIAGRAM**

| +1  | +2  | +3  |
|-----|-----|-----|
| +4  | +5  | +6  |
| +7  | +8  | +9  |
| +10 | +11 | +12 |
| +13 | +14 | +15 |



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# **TEST REPORT FOR ALUMINTECHNO JLLC**

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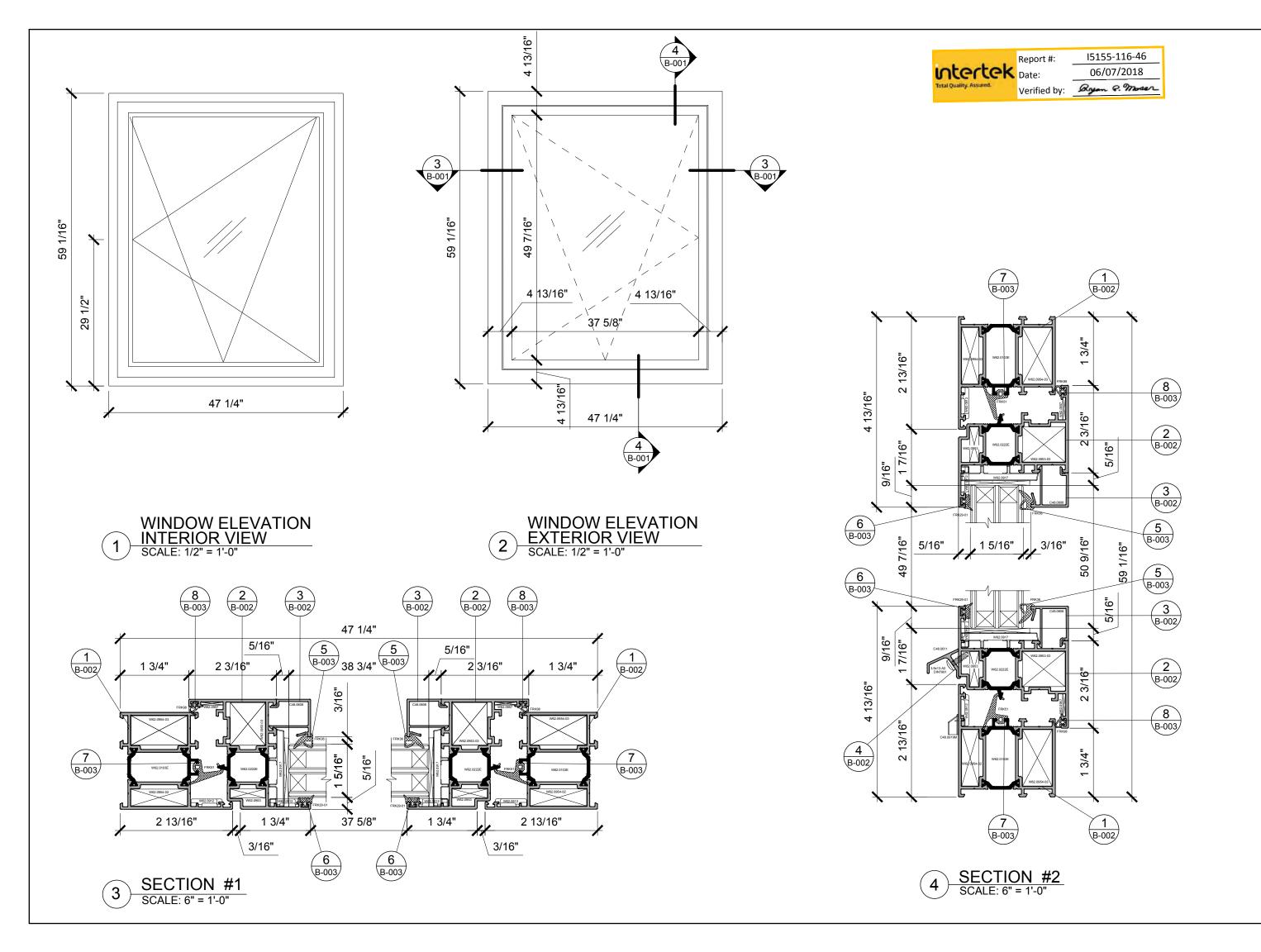
Date: 10/25/18

#### **SECTION 15**

#### **DRAWINGS**

The test specimen drawings which follow have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

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CLIENT:

AVRAMS INC

A W

AVRAMS INC

Brooklyn, NY 11235
tel: 646.789.1827
e-mail: info@awdi.nyc
www.awdi.nyc

PROJECT NAME:

47 1/4" X 59 1/16" THERMAL TEST

PREPARED BY:



PROJECT ADDRESS:

130 DERRY CT YORK, PA 17406

| DATE | REVISION | # |
|------|----------|---|
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ASSEMBLY DRAWING AND SECTIONS

REVIEWED BY PROJECT MANAGES

BY: DATE:

DIMENSIONS FIELD VERIFIED

TE:\_\_\_\_\_

DATE: 06.07.2018

DRAWN BY: EG

CHECKED BY: VP; AA

DRAWING No:

B-001.00

SIZE: B

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15155-116-46 06/07/2018 Verified by: Ryon 8. Moser

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**AVRAMS INC** 

Brooklyn, NY 11235 tel: 646.789.1827 e-mail: info@awdi.nyc www.awdi.nyc

CLIENT:

PROJECT NAME:

47 1/4" X 59 1/16" THERMAL TEST

PREPARED BY:



PROJECT ADDRESS:

130 DERRY CT YORK, PA 17406

| DATE | REVISION | # |
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# INDIVIDUAL FRAME **AND SASH COMPONENTS SECTIONS**

**DIMENSIONS FIELD VERIFIED** 

DATE: 06.07.2018

DRAWN BY: EG

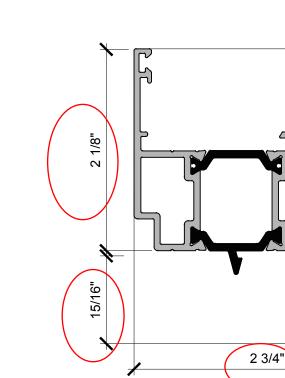
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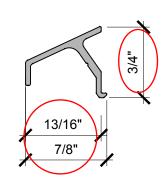
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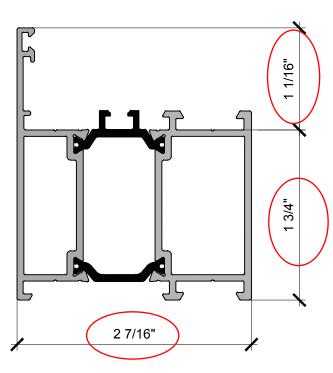
Material: Extruded Aluminum with Thermal Break

SASH MOLDING EXTRUSION W62.0222E SCALE: 1'-0" = 1'-0"



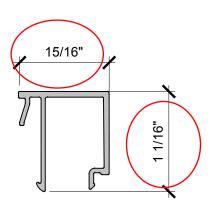
Material: Extruded Aluminum

WATER DEFLECTOR EXTRUSION C48.0611 SCALE: 1'-0" = 1'-0"



Material: Extruded Aluminum with Thermal Break

HEAD, SILL, SIDE JAMBS MOLDING EXTRUSION W62.0103E SCALE: 1'-0" = 1'-0"



Material: Extruded Aluminum

**GLAZING BEAD** EXTRUSION C48.0606 SCALE: 1'-0" = 1'-0"



15155-116-46

06/07/2018

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**AVRAMS INC** Brooklyn, NY 11235 tel: 646.789.1827 e-mail: info@awdi.nyc www.awdi.nyc

PROJECT NAME:

CLIENT:

47 1/4" X 59 1/16" THERMAL TEST

PREPARED BY:



PROJECT ADDRESS:

130 DERRY CT YORK, PA 17406

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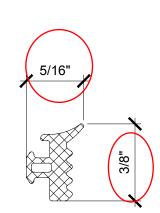
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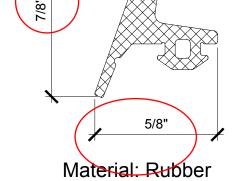
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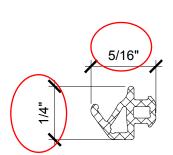


Material: Rubber

EXTERIOR GASKET FRK29-01 SCALE: 2'-0" = 1'-0"



FRAME GASKET FRK51 SCALE: 2'-0" = 1'-0"



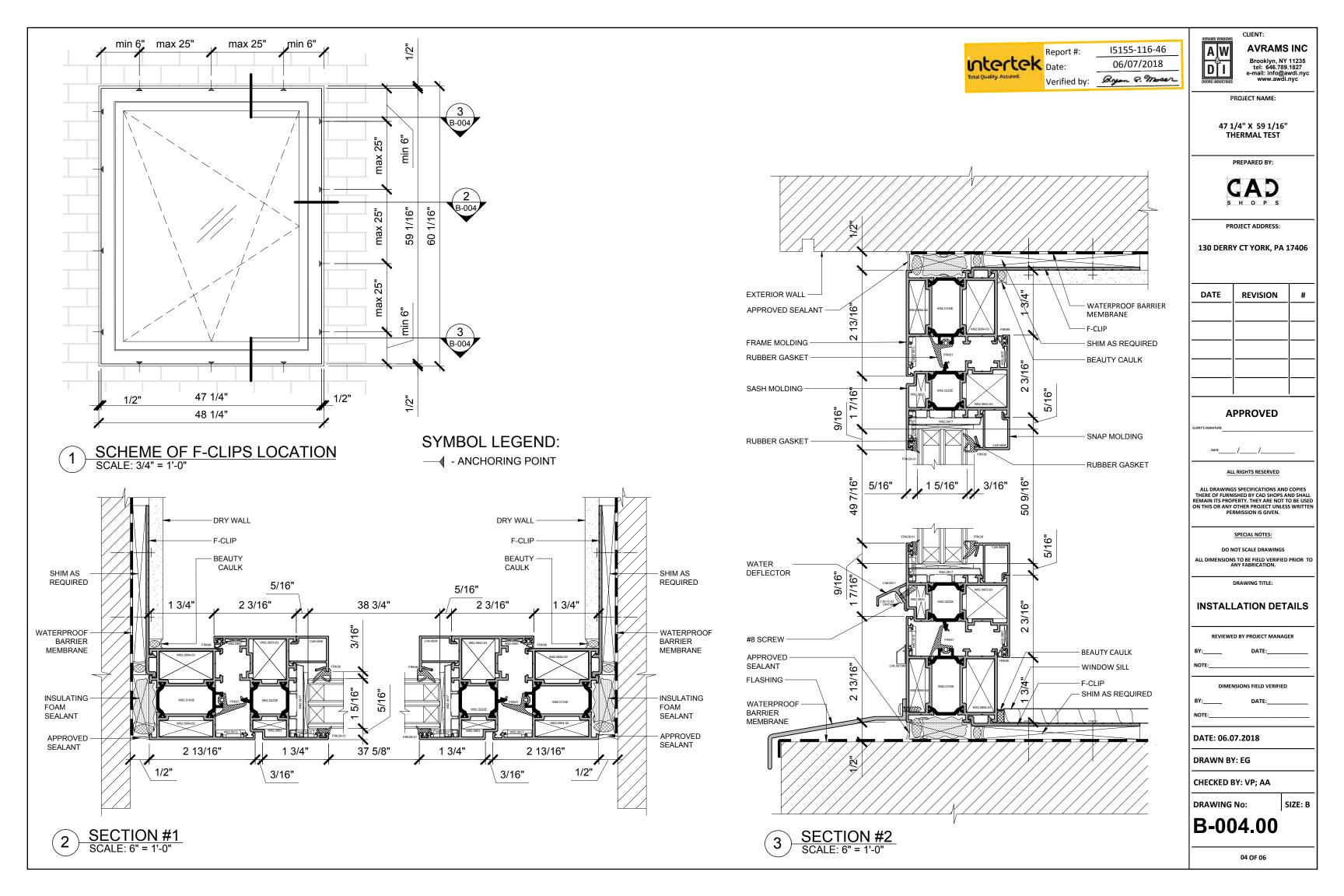
3/8"

Material: Rubber

INTERIOR GASKET FRK36
SCALE: 2'-0" = 1'-0"

Material: Rubber

INTERIOR GASKET FRK98 SCALE: 2'-0" = 1'-0"





15155-116-46 06/07/2018 Verified by: Ryan C. Moser



**AVRAMS INC** 

CLIENT:

PROJECT NAME:

47 1/4" X 59 1/16" THERMAL TEST

PREPARED BY:



PROJECT ADDRESS:

130 DERRY CT YORK, PA 17406

| DATE | REVISION | # |
|------|----------|---|
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|                | APPROVED |
|----------------|----------|
| NT'S SIGNATURE |          |

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ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO ANY FABRICATION.

# HARDWARE DETAILS

|     | REVIEWED BY PROJECT MANAGER |
|-----|-----------------------------|
| BY: | DATE:                       |

**DIMENSIONS FIELD VERIFIED** 

DATE: 06.07.2018

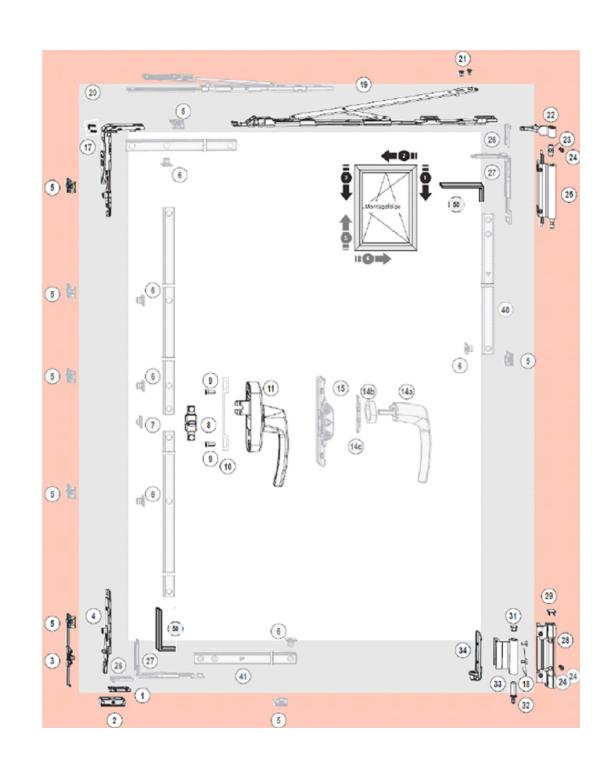
**DRAWN BY: EG** 

**CHECKED BY: VP; AA** 

DRAWING No:

B-005.00

SIZE: B



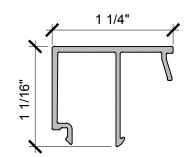
(1)(2)(3)(4)(5)(6)(17) locking elements kit - art. 728804

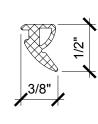
- (5) strike plate art. 728918
- 6 locking element, snap in art. 334671
- 8 T-receptor art. 334574
- 9 10 handle bearing art. 331937
  - (11) handle ROTO LINE art. 377400
  - (19) sash stay 600 art. 728786

 $212225283132334 \ \ \text{hinge group DK - art. 728700}$ 

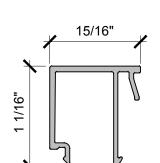
- 26 27 (5) (6) corner switch MV art. 728842 2 pcs
  - 40 rod profile art. AYPC.W62.0607
  - 50 groove corner VTC art. AYPC.W62.0968 2 pcs

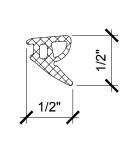
HARDWARE DIAGRAM SCALE: 3/8" = 1'-0"



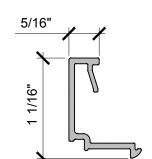


Material: Extruded Aluminum, Rubber
GLAZING BEAD EXTRUSION C48.0608
AND INTERIOR GASKET FRK36 FOR
26 MM INFILL
SCALE: 1'-0" = 1'-0"



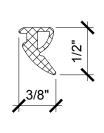


Material: Extruded Aluminum, Rubber GLAZING BEAD EXTRUSION C48.0606 AND INTERIOR GASKET FRK67 FOR 32 - 33 MM INFILL

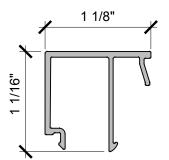


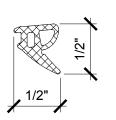
SCALE: 1'-0" = 1'-0"

SCALE: 1'-0" = 1'-0"



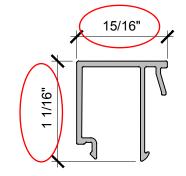
Material: Extruded Aluminum, Rubber GLAZING BEAD EXTRUSION C48.0602 AND INTERIOR GASKET FRK36 FOR 50 MM INFILL

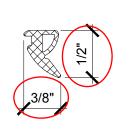




Material: Extruded Aluminum, Rubber GLAZING BEAD EXTRUSION C48.0607 AND INTERIOR GASKET FRK67 FOR 28 MM INFILL

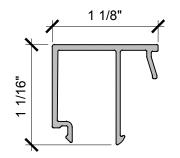
2 SCALE: 1'-0" = 1'-0"

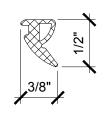




Material: Extruded Aluminum, Rubber
GLAZING BEAD EXTRUSION C48.0606
AND INTERIOR GASKET FRK36 FOR
34 - 35 MM INFILL

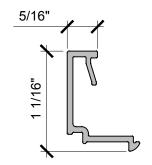
5 SCALE: 1'-0" = 1'-0"

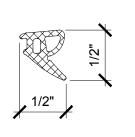




Material: Extruded Aluminum, Rubber GLAZING BEAD EXTRUSION C48.0607 AND INTERIOR GASKET FRK36 FOR 30 - 31 MM INFILL

3 SCALE: 1'-0" = 1'-0"





Material: Extruded Aluminum, Rubber
GLAZING BEAD EXTRUSION C48.0602
AND INTERIOR GASKET FRK67 FOR
48 MM INFILL

6 48 MM INFILL SCALE: 1'-0" = 1'-0"





CLIENT:

AVRAMS INC

Brooklyn, NY 11235 tel: 646.789.1827 e-mail: info@awdi.nyc www.awdi.nyc

PROJECT NAME:

47 1/4" X 59 1/16" THERMAL TEST

PREPARED BY:



PROJECT ADDRESS:

130 DERRY CT YORK, PA 17406

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ANY FABRICATION.

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## VARIOUS GLAZING BEADS

| BY:   | DATE: |
|-------|-------|
| NOTE: |       |

REVIEWED BY PROJECT MANAGER

DIMENSIONS FIELD VERIFIED

BY:\_\_\_\_\_ DATE:\_\_\_\_

DATE: 06.07.2018

DRAWN BY: EG

CHECKED BY: VP; AA

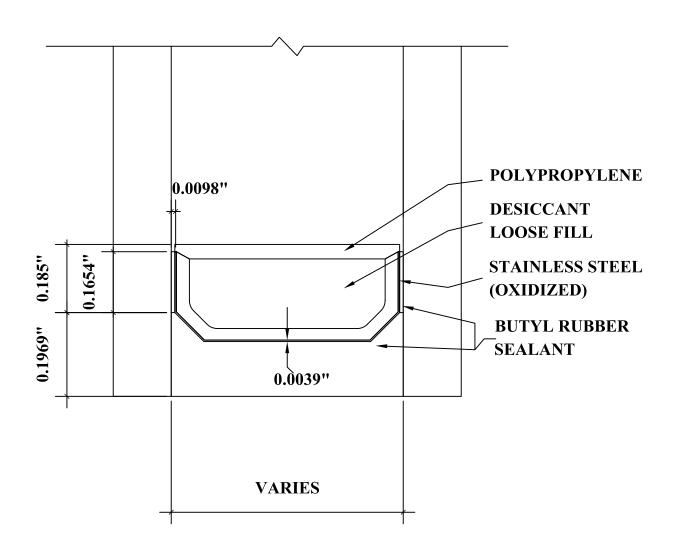
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No: SIZE: B

B-006.00

06 OF 06





<u>DETAIL FOR THERMAL MODELING OF</u> ENSINGER THERMIX TX.N SPACER (TS-D)



Telephone: 717-764-7700 Facsimile: 717-764-4129 www.intertek.com/building

# **TEST REPORT FOR ALUMINTECHNO JLLC**

Report No.: I5155.03-116-46 RO

Date: 10/25/18

# **SECTION 16**

# **REVISION LOG**

| REVISION # | DATE     | PAGES | REVISION       |
|------------|----------|-------|----------------|
| .03 R0     | 10/25/18 | N/A   | Report Reissue |

Version: 01/15/18 Page 20 of 20 RTTDS-R-AMER-Test-2822(a)