

	Document Title:	Doc No:	<b>FRM B1-02</b>	
	<b>Structural Performance Certification Authorization Report</b>	Rev No: 7	Page: 1	Of: 1
Required By: PRO B1-03				

CAR & Product ID Number: 757 - 117.0  
 Issue Date: 8/20/2015  
 Revision Date: 8/20/2015  
 Expiration Date: 6/24/2019  
 Company Code: 757

This Certification Authorization Report (CAR) is issued by Keystone Certifications, Inc. (KCI) after full validation review, and is based on a standardized evaluation of the product conducted by an independent accredited laboratory in accordance with the specified referenced standard. Actual fenestration product performance may vary based on many factors, including installation, condition of the wall/roof substrate and the age of the product and installation components.

This report indicates the product is eligible for the application of Keystone Certification Program certification labels. Licensee stipulates in affixing certification labels to products, that those products are representative of the specimen evaluated and documented for certification authorization. Only products bearing such a certification label shall be considered certified. The information in this report can be verified at [www.keystonecerts.com](http://www.keystonecerts.com).

Licensee Information:	Product Information:
Pocahontas Aluminum Company, Inc. 2001 Industrial Drive PO Box 756 Pocahontas AR 72455	Model: SSL21WW PVC Horizontal Slider XO Operator Type: HS Config: EM/IM, GS-1/8" Ann IG Max Width: 72 Max Height: 60

Referenced Standard:	Product Rating:
AAMA/WDMA/CSA 101/I.S.2/A440-08/11	Class R-PG15 1829x1524 (72x60)-HS

Qualifying Test Information:	
Test Report No:	ATI-E9100.02-501-47
Test Report Expiration:	6/24/2019

**Authorized Signature:**

**Keystone Certifications, Inc.**

564 Old York Road, Suite 5  
 Eters, Pennsylvania 17319  
 Phone: 717-932-8500  
 Fax: 717-932-8501

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<b>Licensee Information:</b>	<b>Product Information:</b>
Pocahontas Aluminum Company, Inc. 2001 Industrial Drive PO Box 756 Pocahontas AR 72455	Model: SSL21WW PVC Horizontal Slider XO Operator Type: HS Config: EM/IM Max Width: 64 Max Height: 50

<b>Referenced Standard:</b>	<b>Product Rating:</b>
AAMA/WDMA/CSA 101/I.S.2/A440-08/11	Class R-PG30 1626x1270 (64x50)-HS

<b>Qualifying Test Information:</b>	
Test Report No:	ATI-E9100.02-501-47
Test Report Expiration:	6/24/2019

**Authorized Signature:**

**Keystone Certifications, Inc.**  
 564 Old York Road, Suite 5  
 Etners, Pennsylvania 17319  
 Phone: 717-932-8500  
 Fax: 717-932-8501



**TEST REPORT**

**Report No.:** E9100.02-501-47

**Rendered to:**

POCAHONTAS ALUMINUM COMPANY, INC.  
Pocahontas, Arizona

**PRODUCT TYPE:** PVC Horizontal Sliding Window, Type X0  
**SERIES/MODEL:** SSL21WW

**SPECIFICATION(S):** AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

Title	Summary of Results	
	Test Specimen #1	Test Specimen #2
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	Class R-PG15 1829 x 1524 (72 x 60) - HS	Class R-PG30 1626 x 1270 (64 x 50) - HS
Design Pressure	±720 Pa (±15.04 psf)	±2400 Pa (±50.13 psf)
Air Infiltration	0.4 L/s/m <sup>2</sup> (0.08 cfm/ft <sup>2</sup> )	See Test Specimen #1
Canadian Air Infiltration/Exfiltration Level	A3	See Test Specimen #1
Water Penetration Resistance Test Pressure	220 Pa (4.60 psf)	See Test Specimen #1

**Test Completion Date:** 06/24/15

Reference must be made to Report No. E9100.02-501-47, dated 07/31/15 for complete test specimen description and detailed test results.



**1.0 Report Issued To:** Pocahontas Aluminum Co., Inc.  
 2001 Industrial Drive  
 Pocahontas, Arizona 72455

**2.0 Test Laboratory:** Architectural Testing, Inc., a subsidiary of Intertek (Intertek-ATI)  
 1140 Lincoln Avenue  
 Springdale, Pennsylvania 15144  
 724-275-7100

**3.0 Project Summary:**

**3.1 Product Type:** PVC Horizontal Sliding Window, Type XO

**3.2 Series/Model:** SSL21WW

**3.3 Compliance Statement:** Results obtained are tested values and were secured by using the designated test method(s). The specimens tested successfully met the performance requirements for the following ratings:

Test Specimen(s)	Title	Summary of Results
1	101/I.S.2/A440-08 and -11	Class R-PG15 1829 x 1524 (72 x 60) - HS
2	101/I.S.2/A440-08 and -11	Class R-PG30 1626 x 1270 (64 x 50) - HS

**3.4 Test Dates:** 06/22/15 - 06/24/15

**3.5 Test Record Retention End Date:** All test records for this report will be retained until June 24, 2019.

**3.6 Test Location:** Veka Inc. test facility in Fombell, Pennsylvania. Calibration of test equipment was performed by Intertek-ATI in accordance with AAMA 205-01 "In-Plant Testing Guidelines for Manufacturers and Independent Laboratories".

**3.7 Test Specimen Source:** The test specimens were provided by the client. Representative samples of the test specimen(s) will be retained by Intertek-ATI for a minimum of four years from the test completion date.

**3.8 Drawing Reference:** The test specimen drawings have been reviewed by Intertek-ATI and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek-ATI per the drawings located in Appendix C. Any deviations are documented herein or on the drawings.

**3.9 List of Official Observers:**

<u>Name</u>	<u>Company</u>
Doug Merry	Veka Inc.
Cornell Charles	Veka Inc.
Joseph Allison	Intertek-ATI

#### 4.0 Test Specification(s):

AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

#### 5.0 Test Specimen Description:

##### 5.1 Product Sizes:

###### Test Specimen #1:

Overall Area: 2.8 m <sup>2</sup> (30.0 ft <sup>2</sup> )	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	1829	72	1524	60
Sash size	914	36	1470	57-7/8
Screen size	895	35-1/4	1486	58-1/2

###### Test Specimen #2:

Overall Area: 2.1 m <sup>2</sup> (22.2 ft <sup>2</sup> )	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	1626	64	1270	50
Sash size	813	32	1216	47-7/8
Screen size	794	31-1/4	1232	48-1/2

*The following descriptions apply to all specimens.*

##### 5.2 Frame Construction:

Frame Member	Material	Description
Head, sill, jambs, fixed stile, roller track	PVC	Extruded

	Joinery Type	Detail
All corners	Mitered	Thermally welded
Fixed stile	Square-cut and coped	Fastened with four #8 x 2" truss head screws, two at each end, and sealed with a silicone sealant
Roller track	Square-cut	Snap-in

## 5.0 Test Specimen Description: (Continued)

### 5.3 Sash Construction:

Sash Member	Material	Description
All rails and stiles	PVC	Extruded

	Joinery Type	Detail
All corners	Mitered	Thermally welded

### 5.4 Weatherstripping:

Description	Quantity	Location
0.187" backed x 0.250" high center fin pile	1 Row	Top rail, bottom rail, stiles

**5.5 Glazing:** *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

#### Test Specimen #1:

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
5/8" IG	Rectangular-shaped steel, single sealed	1/8" annealed	1/8" annealed	The glass was set from the exterior against a silicone sealant and secured with rigid PVC glazing beads

#### Test Specimen #2:

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
5/8" IG	Rectangular-shaped steel, single sealed	3/32" annealed	3/32" annealed	The glass was set from the exterior against a silicone sealant and secured with rigid PVC glazing beads

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Specimen #1 sash	1	810 x 1391	32-7/8 x 54-3/4	5/8"
Specimen #1 frame	1	841 x 1457	33-1/8 x 57-3/8	5/8"
Specimen #1 sash	1	733 x 1137	28-7/8 x 44-3/4	5/8"
Specimen #1 frame	1	740 x 1203	29-1/8 x 47-3/8	5/8"

**5.0 Test Specimen Description:** (Continued)

**5.6 Drainage:**

Drainage Method	Size	Quantity	Location
Weepslot	9/16" wide by 5/32" high	2	Exterior sill face, one 1-1/2" in from each end.
Weepslot	9/16" wide by 5/32" deep	2	Interior sill track, one at each end.
Weepslot	9/16" wide by 5/32" high	2	Intermediate sill wall, one at each end

**5.7 Hardware:**

Description	Quantity	Location
Metal cam lock	2	Lock rail, one 10" in from each end with mating metal keepers on the fixed meeting stile.
Dual metal rollers with plastic housing	2	Bottom rail, one at each end

**5.8 Reinforcement:**

Drawing Number	Location	Material
S-3832	Fixed stile, lock stile	Extruded aluminum

**5.9 Screen Construction:**

Frame Material	Corner Construction	Mesh Type	Mesh Attachment Method
Roll-formed aluminum	Square-cut and secured with snap-in plastic corner keys	Fiber	Flexible vinyl spline

## 6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/8" shim space. The nail fin perimeter of the window was sealed with a silicone sealant.

Location	Anchor Description	Anchor Location
Integral nail fin	#8 x 2" long truss head screws	Nominally spaced at 9" on center, and beginning 2" in from each corner, with an additional three screw cluster at each end of the fixed meeting stile



**7.0 Test Results:** The temperature during testing was 21°C (70°F). The results are tabulated as follows:

**Test Specimen #1:**

Title of Test	Results	Allowed	Note
<b>Operating Force,</b> per ASTM E 2068	Initiate motion: 89 N (20 lbf) Maintain motion: 76 N (17 lbf) Locks: 22 N (5 lbf)	Report Only  90 N (20 lbf) max.  100 N (22.5 lbf) max.	
<b>Air Leakage,</b> Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.4 L/s/m <sup>2</sup> (0.08 cfm/ft <sup>2</sup> )	1.5 L/s/m <sup>2</sup> (0.3 cfm/ft <sup>2</sup> ) max.	1
<b>Air Leakage,</b> Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.4 L/s/m <sup>2</sup> (0.07 cfm/ft <sup>2</sup> )	1.5 L/s/m <sup>2</sup> (0.3 cfm/ft <sup>2</sup> ) max.	1
<b>Canadian Air Infiltration/Exfiltration Level</b>	A3	N/A	
<b>Water Penetration,</b> per ASTM E 547	N/A	N/A	3
<b>Uniform Load Deflection,</b> per ASTM E 330 Deflections taken at the fixed meeting stile +720 Pa (+15.04 psf) -720 Pa (-15.04 psf)	34.8 mm (1.37") 35.5 mm (1.40")	Report Only	4, 5, 6
<b>Uniform Load Structural,</b> per ASTM E 330 Permanent sets taken at the fixed meeting stile +1080 Pa (+22.56 psf) -1080 Pa (-22.56 psf)	1.3 mm (0.05") 1.3 mm (0.05")	6.1 mm (0.24") max. 6.1 mm (0.24") max.	5, 6
<b>Forced Entry Resistance,</b> per ASTM F 588, Type: A - Grade: 10	Pass	No entry	
<b>Thermoplastic Corner Weld</b>	Pass	Meets as stated	
<b>Deglazing,</b> per ASTM E 987 Operating direction, 320 N (72 lbf) Remaining direction, 230 N (52 lbf)	Pass  Pass	Meets as stated  Meets as stated	

**7.0 Test Results:** (Continued)

**Test Specimen #1:** (Continued)

Title of Test	Results	Allowed	Note
<b>Optional Performance</b>			
<b>Water Penetration,</b> per ASTM E 547 at 360 Pa (4.60 psf)	Pass	No leakage	2

**Test Specimen #2:**

Title of Test	Results	Allowed	Note
<b>Optional Performance</b>			
<b>Uniform Load Deflection,</b> per ASTM E 330 taken at the fixed meeting stile +1440 Pa (+30.08 psf) -1440 Pa (-30.08 psf)	31.0 mm (1.22") 31.0 mm (1.22")	Report Only	4, 5, 6
<b>Uniform Load Structural,</b> per ASTM E 330 taken at the fixed meeting stile +2160 Pa (+45.11 psf) -2160 Pa (-45.11 psf)	1.3 mm (0.07") 2.0 mm (0.08")	5.1 mm (0.20") max. 5.1 mm (0.20") max.	5,6

*Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/1.S.2/A440 for air leakage resistance.*

*Note 2: With and without insect screen.*

*Note 3: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.*

*Note 4: The deflections reported are not limited by AAMA/WDMA/CSA 101/1.S.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.*

*Note 5: Loads were held for 10 seconds.*

*Note 6: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.*



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

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For INTERTEK-ATI

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Joseph E. Allison  
Senior Technician

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Lynn George  
Director – Regional Operations

JEA:sld

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Alteration Addendum (1)

Appendix-B: Location of Air Seal (1)

Appendix- C: Drawing(s) (2) Complete drawings packet on file with Intertek-ATI



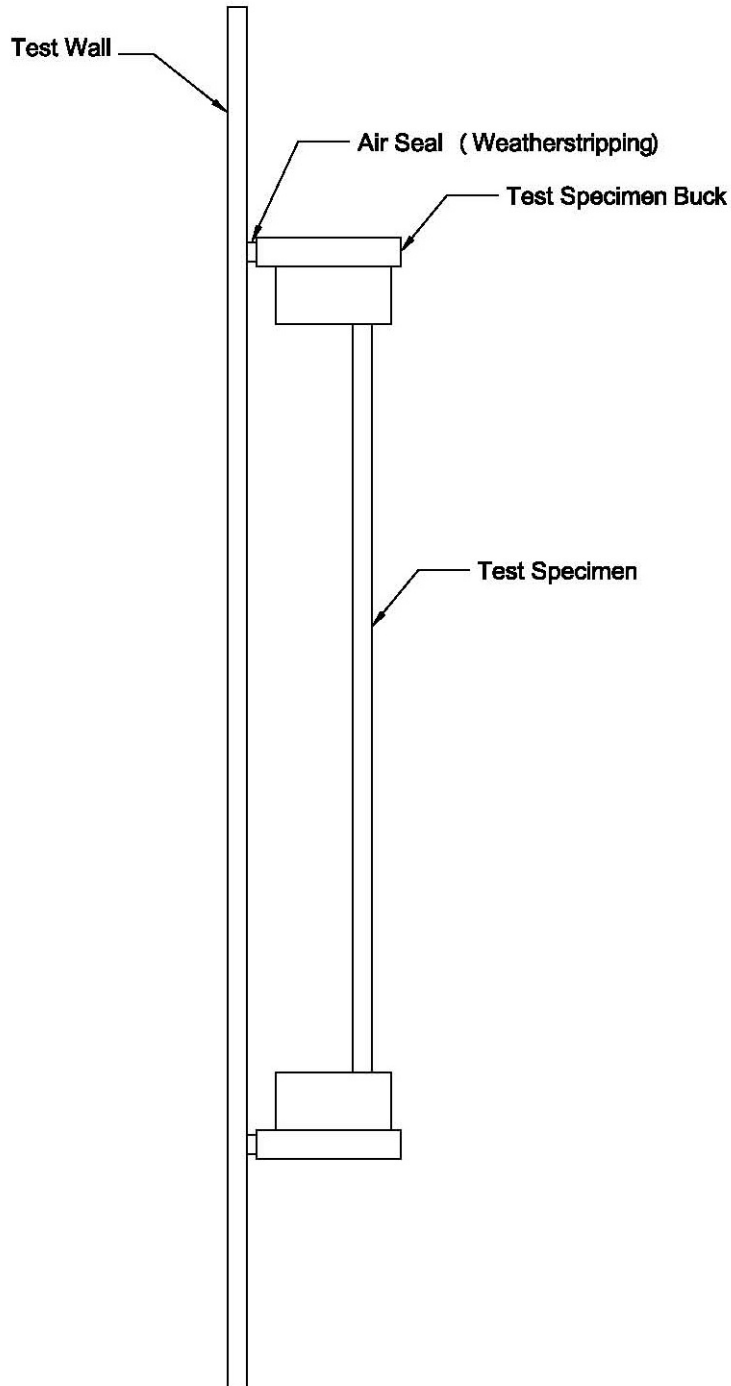
## **Appendix A**

### **Alteration Addendum**

*Note: No alterations were required.*

### Appendix B

**Location of Air Seal:** The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.





## **Appendix C**

### **Drawing(s)**

*Note: Complete drawings packet on file with Intertek-ATI*



# Architectural Testing

Test sample complies with these details.  
Deviations are noted.

Report#

E9100

Date

6/30/15

Tech

JLCA

**NOTE:**

FOR OTHER PROFILE, GLAZING BEAD, & GLASS OPTIONS, PLEASE SEE THE LINEAL PROFILE CHARTS FOR THIS SYSTEM.

JORDAN ALUMINUM  
#3832 MODIFIED  
FOR MR

BVP01

5/8" I.G.

SHS24

SSS29

SHS26

JORDAN ALUMINUM  
#3832 MODIFIED  
FOR LOCK RAIL

1 SSL21

POCAHONTAS



## VEKA INC.

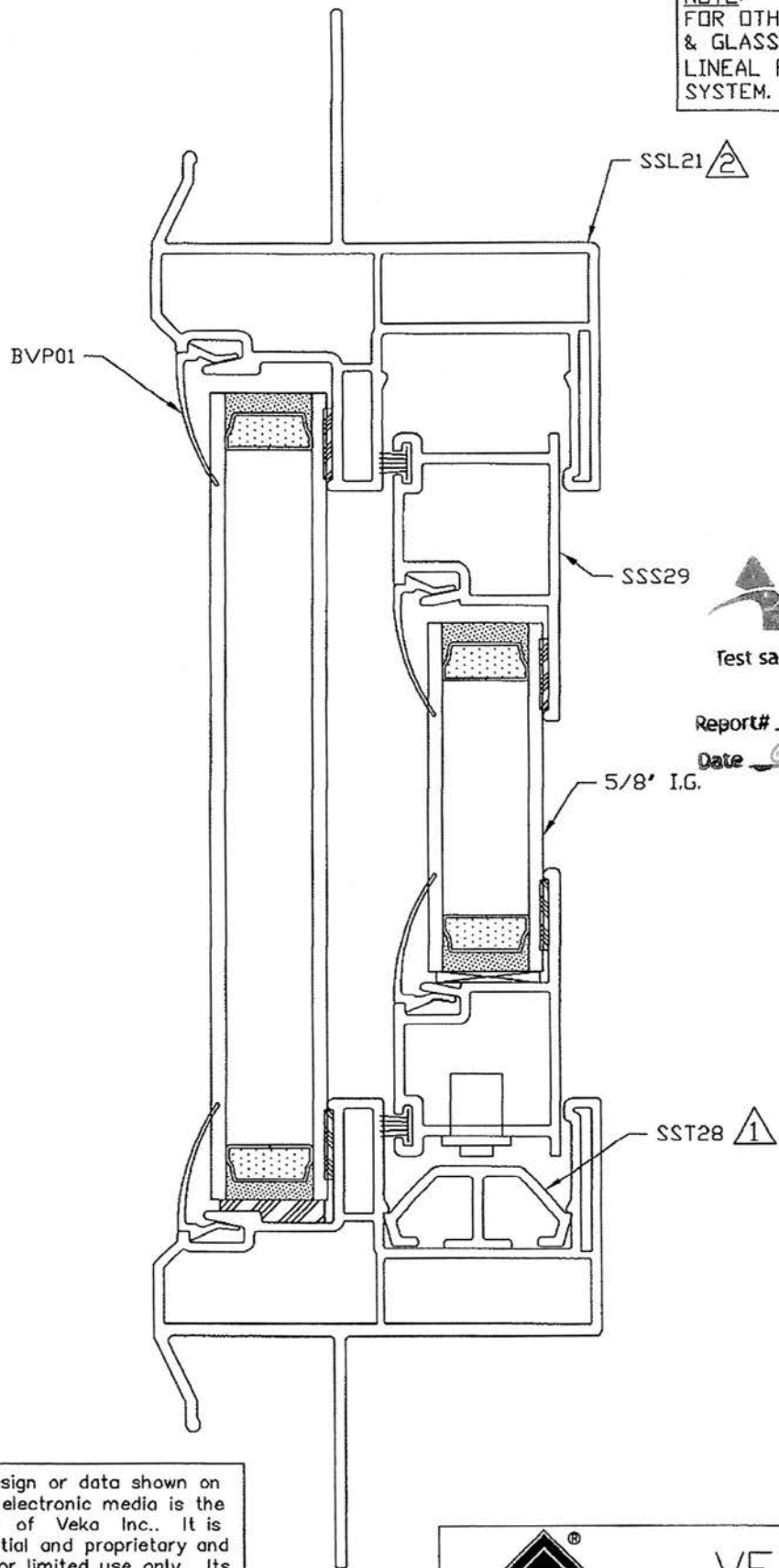
100 VEKA DRIVE  
FOMBELL, PA 16123

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1	UPDATED SSL21	13 SEPT 02
	REVISIONS	DATE

DRAWN: JMN	DATE: 9 JUNE 99	SCALE: FULL
CHK'D:	DATE:	APPV'D:
TITLE: SINGLE SLIDER SSL21WW HORIZONTAL ASSEMBLY		DWG. # SSL21WW-H

NOTE:  
 FOR OTHER PROFILE, GLAZING BEAD,  
 & GLASS OPTIONS, PLEASE SEE THE  
 LINEAL PROFILE CHARTS FOR THIS  
 SYSTEM.



**Architectural Testing**  
 Test sample complies with these details.  
 Deviations are noted.  
 Report# E9100  
 Date 6/30/15 Tech [Signature]

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**VEKA INC.**  
 100 VEKA DRIVE  
 FOMBELL, PA 16123

REVISIONS	DATE
2	13 SEPT 02
1	12 SEPT 02

DRAWN: JMN	DATE: 9 JUNE 99	SCALE: FULL
CHK'D:	DATE:	APPV'D:
TITLE SINGLE SLIDER SSL21WW VERTICAL ASSEMBLY		DWG. # SSL21WW-V