



SUBMITTAL PACKAGE

SS57 – Single Slider Window

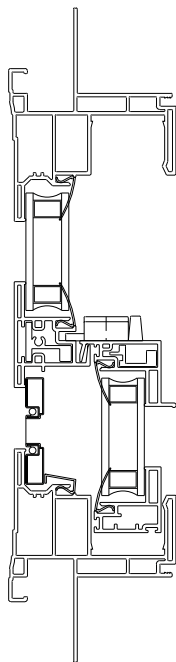
Core Sheet	Page 2
Thermal Report	Page 3-6
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Impact Report	<i>Pending</i>
Light Commercial Structural Report	Page 20-31
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Flashing Detail	Page 34-38
Operating Instructions	<i>Pending</i>

SS57 Single Slider

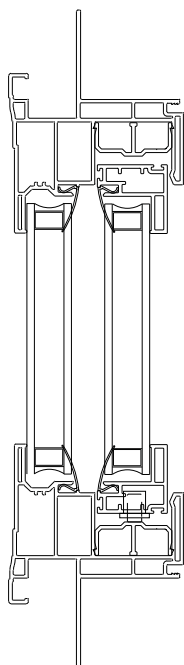
New Construction

FEATURES and BENEFITS

- Made in the USA. 100% U.S. components
- Lead free
- EnergyStar® rated and labeled
- Aesthetically-pleasing exterior frame design
- All-welded frame and sash, brick-mould look J-channel
- DP50 performance levels
- Dual weatherstripping
- Easy drywall pass-through capability
- Full complement of accessory profiles
- Full family of products (single hung, single slider, and picture)
- Full 1 ½" integral nail fin
- 2 ⅞" frame width
- Optimum designed aluminum sash reinforcement
- Long reach interlock. No colliding or missing
- Sweep lock, no keeper needed. Passes forced entry



Top View



Side View

PERFORMANCE

THERMAL INSULATION

GLASS	Uc Value	R Value	SHGC
Low-E 270	0.30	3.45	0.27
Low-E 366	0.29	3.45	0.20
Low-E 366 w/ i89	0.25	4.00	0.20

STRUCTURAL DATA

Air Infiltration @ 25mph	0.10 cfm/ft²
Water Penetration	7.50 psf
Uniform Loads	+/- 75.00 psf

AAMA RATING: PG50-HS





KEYSTONE CERTIFICATIONS, INC.
564 OLD YORK ROAD, SUITE 5
ETTERS, PA 17319 / PHONE 717-932-8500

Notice of Product Certification Authorization

National Fenestration Rating Council

Issued To:

Manufacturer: Custom Vinyl Products LLC
Address: 260 Enterprise Drive
New Port News VA 23603
Man'f Code CST
Cert Date: 6/14/2012

Certification Number

8426

Product Line Number

CST - K - 006

Revision Date

9/2/2015

The Following NFRC Product Line Has Been Authorized For Certification:

Model / Series: SS57 Single Slider
Operator Type: HSOX
Frame Type: VI
Sash Type: VI
Exp. Date: 5/3/2017

Ratings Authorized For Certification:

Rating	Property	Authorized
NFRC 100	U-factor	☒
NFRC 200	Solar Heat Gain Coefficient	☒
NFRC 200	Visible Light	☒
NFRC 400	Air Leakage	☒
NFRC 500	Condensation Resistance	☒

Fenestration products are not NFRC Certified unless manufactured and labeled in accordance with the current version of NFRC-700, Product Certification Program requirements.

***This is a cover sheet for an NFRC Certification Authorization Report (CAR)
the corresponding CAR may be downloaded for printing at www.nfrc.org.***

The Manufacturer is authorized to label the options listed in the corresponding CAR

Please notify Keystone of any errors or omissions within 10 days of receipt.

Due diligence was used in authorizing these products for certification. By accepting this report the licensee agrees to hold harmless and indemnify Keystone Certifications, Inc. from all claims or liabilities which may arise based on this certification authorization. Certification authorization is based on NFRC program requirements and simulation and test reports from accredited laboratories.



NFRC Product Certification Authorization Report

Manufacturer: Custom Vinyl Products, LLC
Street: 260 Enterprise Drive
City/State/Zip: Newport News, VA 23603
Print Date: 09/02/2015

Product Series: SS57 Single Slider
Product Type: HSOX
Air Leakage: ≤ 0.3

Simulation Lab: SATI
Sim. Report #: C6243.07-116-45
Sim. Report Date: 08/27/2015
Test Date: 05/03/2013

Initial Cert. Date: 06/14/2012
Re-Certification Date: 09/02/2015
Revised Date: 08/27/2015
Expiration Date: 05/03/2017

CPD Number: CST-K-6															
IA: Keystone Certifications, Inc.															
Status	Product Num.	Manufacturer Code	Frame/ Sash	Glaz Lyrs	Low-E (Surface)	Gap Width(s)	Spacer	Gap Fill	Grids	Dividers	Tint	U-Factor	SHGC	VT	Cond Res.
	00019-00001	E270 / ARG90 / CLR (2MM/2MM) - 3/4" IG	VI/VI	2	0.037(2)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	N		CL	0.30	0.30	0.57	59
	00019-00002	E270 / ARG90 / CLR (2MM/2MM) - 3/4" IG	VI/VI	2	0.037(2)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	G	0.75	CL	0.30	0.27	0.51	59
	00019-00003	E270 / ARG90 / CLR (2MM/2MM) - 3/4" IG	VI/VI	2	0.037(2)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	S	0.75	CL	0.30	0.27	0.51	59
	00020-00001	E366 / ARG90 / CLR (2MM/2MM) - 3/4" IG	VI/VI	2	0.022(2)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	N		CL	0.29	0.22	0.53	60
	00020-00002	E366 / ARG90 / CLR (2MM/2MM) - 3/4" IG	VI/VI	2	0.022(2)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	G	0.75	CL	0.29	0.20	0.47	60
	00020-00003	E366 / ARG90 / CLR (2MM/2MM) - 3/4" IG	VI/VI	2	0.022(2)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	S	0.75	CL	0.29	0.20	0.47	60
	00021-00001	E270 / ARG90 / CLR (3MM/3MM) - 3/4" IG	VI/VI	2	0.037(2)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	N		CL	0.29	0.30	0.56	59
	00021-00002	E270 / ARG90 / CLR (3MM/3MM) - 3/4" IG	VI/VI	2	0.037(2)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	G	0.75	CL	0.29	0.27	0.50	59
	00021-00003	E270 / ARG90 / CLR (3MM/3MM) - 3/4" IG	VI/VI	2	0.037(2)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	S	0.75	CL	0.29	0.27	0.50	59
	00022-00001	E366 / ARG90 / CLR (3MM/3MM) - 3/4" IG	VI/VI	2	0.022(2)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	N		CL	0.29	0.22	0.52	60
	00022-00002	E366 / ARG90 / CLR (3MM/3MM) - 3/4" IG	VI/VI	2	0.022(2)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	G	0.75	CL	0.29	0.20	0.46	60
	00022-00003	E366 / ARG90 / CLR (3MM/3MM) - 3/4" IG	VI/VI	2	0.022(2)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	S	0.75	CL	0.29	0.20	0.46	60
	00023-00001	E366 / ARG90 / i89 (2MM/2MM) - 3/4" IG	VI/VI	2	0.022(2),0.149(4)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	N		CL	0.25	0.22	0.51	48
	00023-00002	E366 / ARG90 / i89 (2MM/2MM) - 3/4" IG	VI/VI	2	0.022(2),0.149(4)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	G	0.75	CL	0.25	0.20	0.46	48
	00023-00003	E366 / ARG90 / i89 (2MM/2MM) - 3/4" IG	VI/VI	2	0.022(2),0.149(4)	0.563	SS-D	Fill 1: ARG/AIR (90/10)	S	0.75	CL	0.25	0.20	0.46	48
	00024-00001	E366 / ARG90 / i89 (3MM/3MM) - 3/4" IG	VI/VI	2	0.022(2),0.149(4)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	N		CL	0.25	0.22	0.51	48
	00024-00002	E366 / ARG90 / i89 (3MM/3MM) - 3/4" IG	VI/VI	2	0.022(2),0.149(4)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	G	0.75	CL	0.25	0.20	0.45	48



NFRC Product Certification Authorization Report

Manufacturer: Custom Vinyl Products, LLC		Product Series: SS57 Single Slider		Simulation Lab: SATI		Initial Cert. Date: 06/14/2012									
Street: 260 Enterprise Drive		Product Type: HSOX		Sim. Report #: C6243.07-116-45		Re-Certification Date: 09/02/2015									
City/State/Zip: Newport News, VA 23603		Air Leakage: ≤ 0.3		Sim. Report Date: 08/27/2015		Revised Date: 08/27/2015									
Print Date: 09/02/2015				Test Date: 05/03/2013		Expiration Date: 05/03/2017									
CPD Number: CST-K-6															
IA: Keystone Certifications, Inc.															
Status	Product Num.	Manufacturer Code	Frame/ Sash	Glaz Lyrs	Low-E (Surface)	Gap Width(s)	Spacer	Gap Fill	Grids	Dividers	Tint	U-Factor	SHGC	VT	Cond. Res.
00024-00003	E366 / ARG90 / i89 (3MM/3MM) - 3/4" IG		VIVI	2	0.022(2),0.149(4)	0.500	SS-D	Fill 1: ARG/AIR (90/10)	S	0.75	CL	0.25	0.20	0.45	48

Baseline Information

Test Lab	Test Date	Test Size	Tested U-Value	Standard U-Value	Test Report Number
TATI	05/03/2013	1200mm x 1499mm	0.273	0.266	C6242.08-116-46

Comments: 90% Argon, Single Probe.

I hereby certify that all requirements for NFRC Certification Authorization have been met and that the above information is true and correct, to the best of my knowledge.

2015.09.02 15:57:24
-04'00'

Authorized IA
Signature: _____



TEST REPORT

Report No.: E8504.01-501-47

Rendered to:

VEKA INC.
Fombell, Pennsylvania

PRODUCT TYPE: PVC Horizontal Sliding Window, Type XO

SERIES/MODEL: SS46/57WW

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
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	Class R-PG50 1829 x 1219 (72 x 48)-HS
Design Pressure	± 2400 Pa (± 50.13 psf)
Air Infiltration	0.5 L/s/m ² (0.10 cfm/ft ²)
Canadian Air Infiltration/Exfiltration Level	A2
Water Penetration Resistance Test Pressure	360 Pa (7.52 psf)

Test Completion Date: 08/05/15

Reference must be made to Report No. E8504.01-501-47, dated 08/18/15 for complete test specimen description and detailed test results.

- 1.0 Report Issued To:** Veka Inc.
100 Veka Drive
Fombell, Pennsylvania 16123-0250
- 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:** SS46/57WW
- 3.3 Compliance Statement:** Results obtained are tested values and were secured by using the designated test method(s). The specimen tested successfully met the performance requirements for a **Class R-PG50 1829 x 1219 (72 x 48)-HS** rating.
- 3.4 Test Dates:** 06/01/15 - 08/05/15
- 3.5 Test Record Retention End Date:** All test records for this report will be retained until August 5, 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 specimen was provided by the client. Representative samples of the test specimen(s) will be retained 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.
Joe 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:

Overall Area: 1.8 m ² (19.3 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	1829	72	1219	48
Sash size	911	35-7/8	1162	45-3/4
Screen size	870	34-1/4	1137	44-3/4

5.2 Frame Construction:

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

	Joinery Type	Detail
All corners	Mitered	Thermally welded
Fixed stile	Coped/butt type	Fastened with four #8 x 3" truss head screws, two at each end and sealed with a silicone sealant
Sill extender	Square-cut	Sealed with a silicone sealant
Roller track	Square-cut	Snap-in

5.3 Sash Construction:

Sash Member	Material	Description
All rails and stiles	PVC	Extruded

5.0 Test Specimen Description: (Continued)

5.3 Sash Construction: (Continued)

	Joinery Type	Detail
All corners	Mitered	Thermally welded

5.4 Weatherstripping:

Description	Quantity	Location
0.187" backed x 0.270" high center fin pile	1 Row	Sash rails and stiles, fixed meeting stile

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.*

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
3/4" IG	Rectangular shaped steel, single sealed	1/8" annealed	1/8" annealed	The sash glass was exterior glazed and the fixed lite was interior glazed. The glass was set against a silicone sealant and secured with rigid vinyl glazing beads.

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Sash	1	822 x 1073	32-3/8 x 42-1/4	1/2"
Frame	1	819 x 1105	32-1/4 x 43-1/2	1/2"

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weepslot with flap	1-1/4" wide by 5/32" high	2	Exterior sill face, one 3-1/2" in from each end
Weepslot	1-1/4" wide by 1/4" high	2	Interior sill track, one at each end
Weepslot	1" wide by 3/8" high	2	Intermediate sill wall, one at each end

5.0 Test Specimen Description: (Continued)

5.7 Hardware:

Description	Quantity	Location
Metal cam lock	2	Lock stile, one 9-1/2" in from each end mating with metal keeper on the fixed stile
Dual metal rollers with plastic housing	2	Bottom rail, one at each end

5.8 Reinforcement:

Drawing Number	Location	Material
S-065	Fixed meeting stile	Extruded aluminum
RFSE4646AOM	All stiles and rails	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" truss head screws	Nominally spaced at 7-1/2" on center, beginning at each corner

7.0 Test Results: The temperature during testing was 20°C (68°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 67 N (15 lbf) Maintain motion: 62 N (14 lbf) Locks: 22 N (5 lbf)	Report Only 90 N (20 lbf) max. 100 N (22.5 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.5 L/s/m ² (0.10 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.8 L/s/m ² (0.15 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547	N/A	N/A	3
Uniform Load Deflection, per ASTM E 330	N/A	N/A	3
Uniform Load Structural, per ASTM E 330	N/A	N/A	3
Forced Entry Resistance, per ASTM F 588, Type: A - Grade: 10	Pass	No entry	
Thermoplastic Corner Weld	Pass	Meets as stated	
Deglazing, 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)

Title of Test	Results	Allowed	Note
Optional Performance			
Water Penetration, per ASTM E 547 at 360 Pa (7.52 psf)	Pass	No leakage	2
Uniform Load Deflection, per ASTM E 330 Deflections taken at the fixed meeting stile +2400 Pa (+50.13 psf) -2400 Pa (-50.13 psf)	25.0 mm (0.99") 19.8 mm (0.78")	Report Only	4, 5, 6
Uniform Load Structural, per ASTM E 330 Permanent sets taken at the fixed meeting stile +3600 Pa (+75.19 psf) -3600 Pa (-75.19 psf)	4.0 mm (0.16") 0.8 mm (0.03")	4.3 mm (0.17") max. 4.3 mm (0.17") max.	5, 6

Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.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/I.S.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

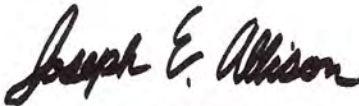
Note 5: Loads were held for 10 seconds.

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.

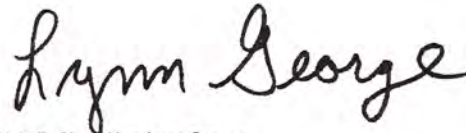
This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For ARCHITECTURAL TESTING, INC.



Digitally Signed by: Joseph E. Allison

Joseph E. Allison
Senior Technician



Digitally Signed by: Lynn George

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.



Test Report No.: E8504.01-501-47
Architectural Testing Revision 1: 08/31/15
Report Date: 08/18/15
Page 8 of 8

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
1	08/31/15	Page 4	Corected reinforcement drawing numbers

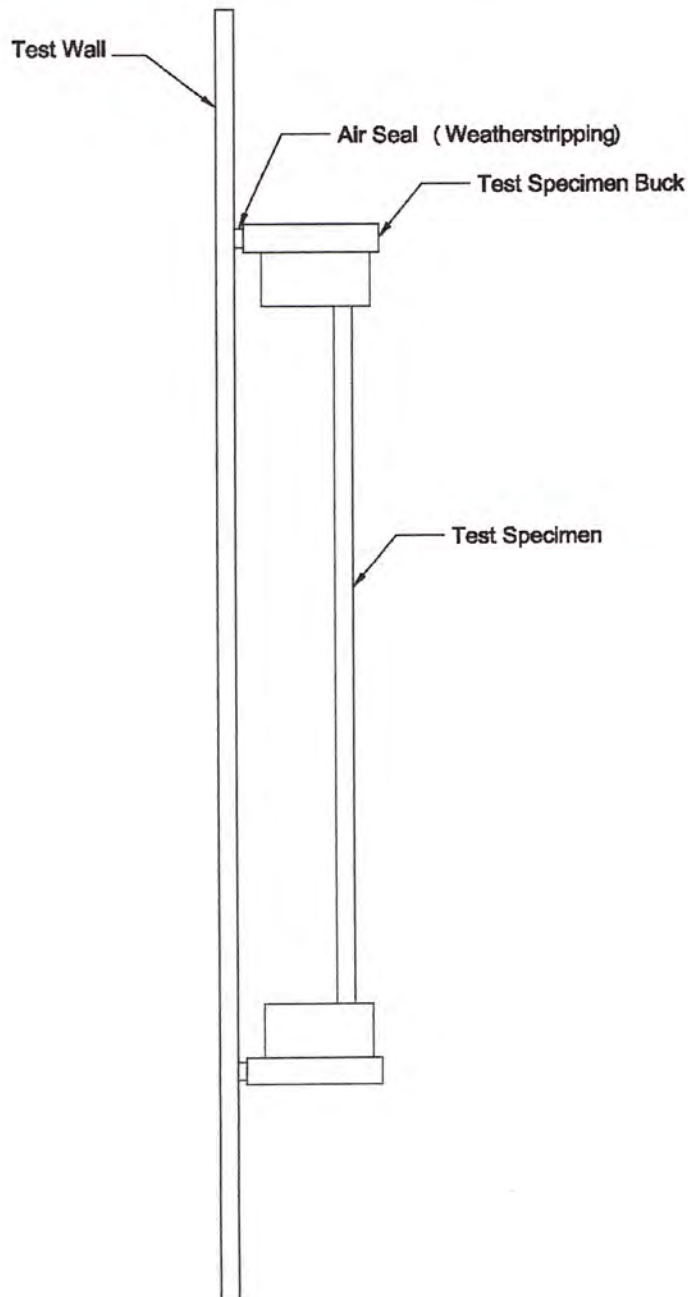
Appendix A

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.





Test Report No.: E8504.01-501-47
Architectural Testing Revision 1: 08/31/15
Report Date: 08/18/15

Appendix C

Drawing(s)

Note: Complete drawings packet on file with Intertek-ATI



Architectural Testing

Test sample complies with these details
Deviation(s) are noted

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VEKA INC.
100 VEKA DRIVE
FOMBELL, PA 16123

DRAWN: BJF	DATE: 29 JUNE 2015	SCALE: FULL
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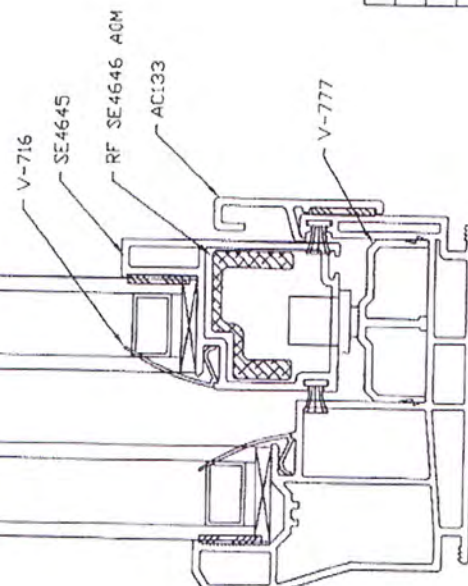
CHK'D:	DATE:	APP'D:
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NTLE: IMPACT SINGLE SLIDER SS46WW
USING SE46 LG SASH SYSTEM

SS46WW DP50 IN=ACT

[illegible]

VERTICAL ASSEMBLY





TEST REPORT

Report No.: F6127.01-501-47

Rendered to:

VEKA INC.
Fombell, Pennsylvania

PRODUCT TYPE: PVC Horizontal Sliding Window, Type XO
SERIES/MODEL: SS57WW

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
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	Class LC-PG30 1803 x 1397 (71 x 55)-HS
Design Pressure	± 1440 Pa (± 30.08 psf)
Air Infiltration	0.6 L/s/m ² (0.11 cfm/ft ²)
Canadian Air Infiltration/Exfiltration Level	A2
Water Penetration Resistance Test Pressure	220 Pa (4.60 psf)

Test Completion Date: 02/26/16

Reference must be made to Report No. F6127.01-501-47, dated 03/07/16 for complete test specimen description and detailed test results.

1.0 Report Issued To: Veka Inc.
100 Veka Drive
Fombell, Pennsylvania 16123-0250

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: SS57WW

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s). The specimen tested successfully met the performance requirements for a **Class LC-PG30 1803 x 1397 (71 x 55)-HS** rating.

3.4 Test Dates: 02/25/16 - 02/26/16

3.5 Test Record Retention End Date: All test records for this report will be retained until February 26, 2020.

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

3.7 Test Specimen Source: The test specimen was provided by the client. Representative samples of the test specimen(s) will be retained by Architectural Testing for a minimum of four years from the test completion date.

3.8 Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing 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.
Joe Allison	Intertek-ATI

4.0 Test Specification(s):

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

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

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 2.5 m ² (27.1 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	1803	71	1397	55
Sash size	879	34-5/8	1343	52-7/8
Screen size	841	33-1/8	1308	51-1/2

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 3" long truss head screws, two at each end, and sealed with a silicone sealant
Roller track	Square cut	Snap in

5.3 Sash Construction:

Sash Member	Material	Description
All rails and stiles	PVC	Extruded

	Joinery Type	Detail
All corners	Mitered	Thermally welded

5.0 Test Specimen Description: (Continued)

5.4 Weatherstripping:

Description	Quantity	Location
0.187" backed x 0.270" high center fin pile	1 Row	Lock stile
0.187" backed x 0.270" high center fin pile	2 Rows	Jamb stile, top and bottom rails

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.*

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
3/4" IG	Butyl, single sealed	1/8" annealed	1/8" annealed	The sash exterior glazed and the fixed lite was interior glazed. The glass was set against a double-sided adhesive tape and secured with rigid vinyl glazing beads.

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Sash	1	819 x 1283	32-1/4 x 50-1/2	1/2"
Frame	1	819 x 1283	32-1/4 x 50-1/2	1/2"

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weepslot with flap	1" wide by 1/8" high	2	Exterior sill face, one 2-1/2" in from each end with open-cell foam baffle-filling the chamber behind it
Weepslot	1" wide by 1/8" high	2	Interior sill track, one at each end
Weepslot	1" wide by 1/2" high	2	Intermediate sill wall, one at each end

5.0 Test Specimen Description: (Continued)

5.7 Hardware:

Description	Quantity	Location
Metal sweep lock	2	Lock stile, one 7" in from each end engaging an extruded groove in the fixed stile
Dual nylon rollers with molded housing	2	Bottom rail, one at each end

5.8 Reinforcement:

Drawing Number	Location	Material
S-046	Fixed stile	Extruded aluminum
S-047	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 nailing fin	#8 x 2" long truss head screws	Nominally spaced at 11" on center, and beginning at each corner

7.0 Test Results: The temperature during testing was 20°C (68°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 84 N (19 lbf) Maintain motion: 36 N (8 lbf) Locks: 27 N (6 lbf)	Report Only 90 N (20 lbf) max. 100 N (22.5 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.6 L/s/m ² (0.11 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.5 L/s/m ² (0.10 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547	N/A	N/A	3
	Pass	No leakage	2
Uniform Load Deflection, per ASTM E 330	N/A	N/A	3
Uniform Load Structural, per ASTM E 330	N/A	N/A	3
Forced Entry Resistance, per ASTM F 588, Type: A - Grade: 10	Pass	No entry	
Thermoplastic Corner Weld	Pass	Meets as stated	
Deglazing, per ASTM E 987 Operating direction, 320 N (72 lbf) Remaining direction, 230 N (52 lbf)	Pass	Meets as stated	
	Pass	Meets as stated	

7.0 Test Results: (Continued)

Title of Test	Results	Allowed	Note
Optional Performance			
Water Penetration, per ASTM E 547 at 220 Pa (4.60 psf)	Pass	No leakage	2
Uniform Load Deflection, per ASTM E 330 Deflections taken at the fixed meeting stile +1440 Pa (+30.08 psf) -1440 Pa (-30.08 psf)	39.3 mm (1.55") 32.5 mm (1.28")	Report Only	4, 5, 6
Uniform Load Structural, per ASTM E 330 Permanent sets taken at the fixed meeting stile +2160 Pa (+45.11 psf) -2160 Pa (-45.11 psf)	4.0 mm (0.16") 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/IS.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/IS.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

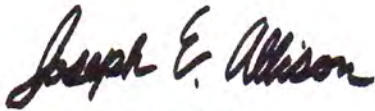
Note 5: Loads were held for 10 seconds.

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.

Architectural Testing 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 Architectural Testing, Inc. for the entire test record retention period.

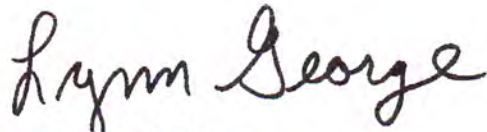
This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural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

For ARCHITECTURAL TESTING, Inc.



Digitally Signed by: Joseph E. Allison

Joseph E. Allison
Senior Technician



Digitally Signed by: Lynn George

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)

AppendixC: Drawing(s) (1) Complete drawings packet on file with Architectural Testing, Inc.



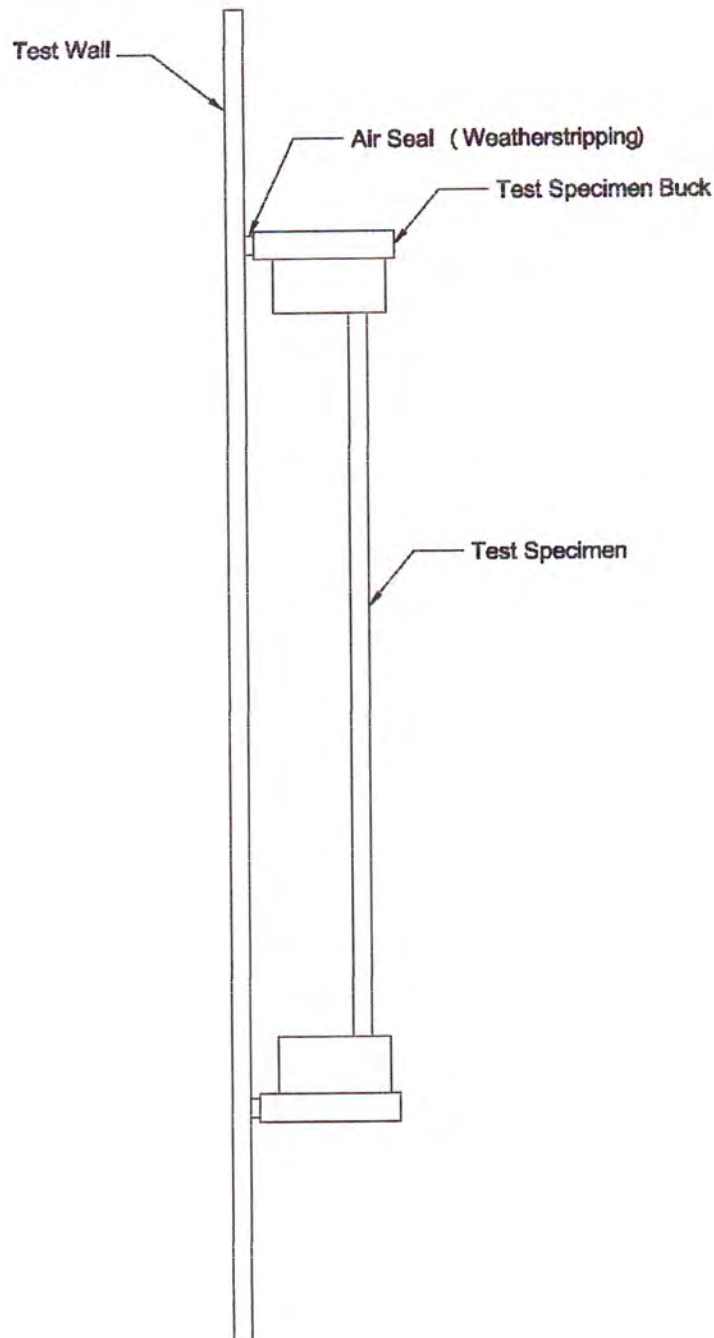
Appendix A

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.

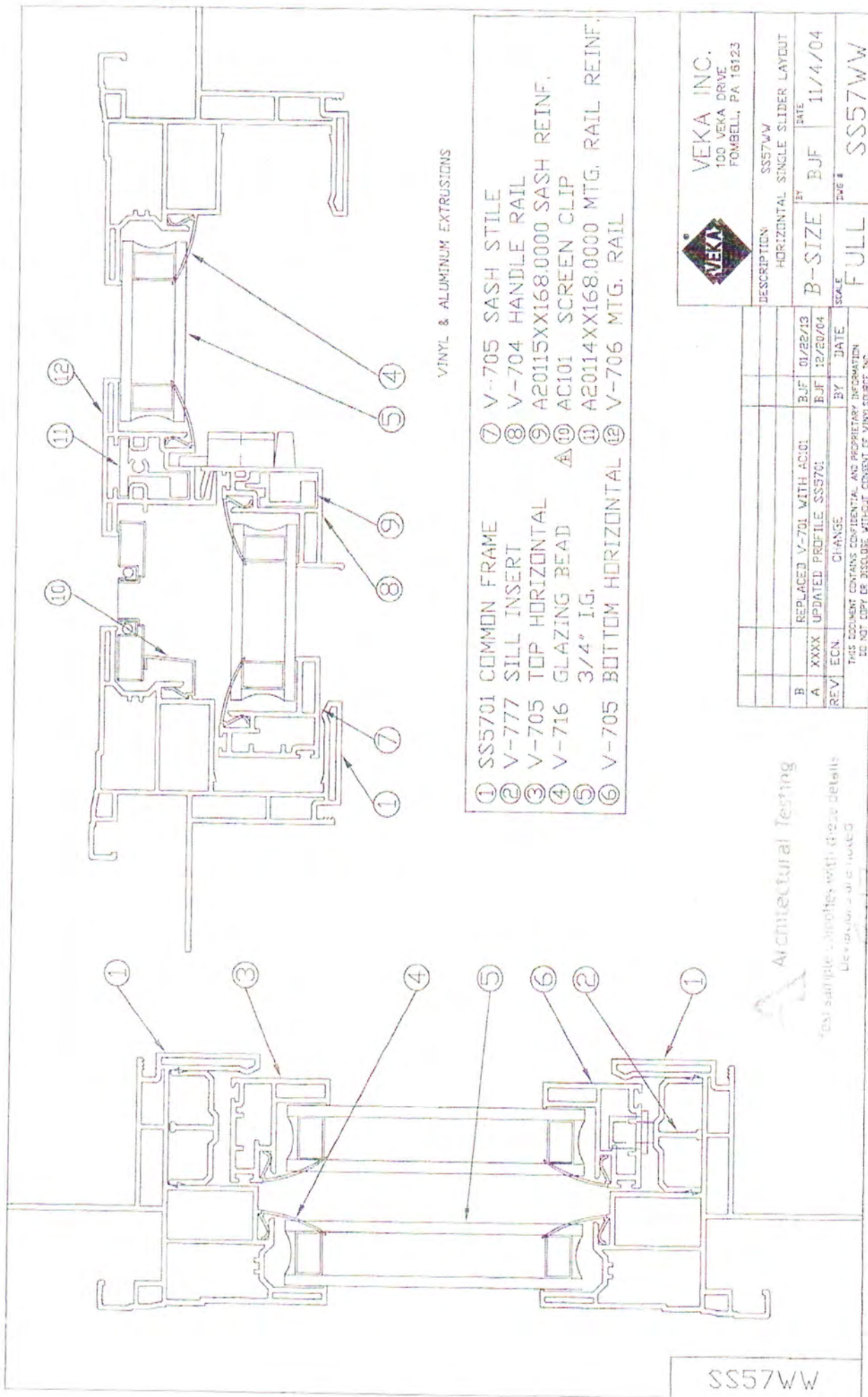




Appendix C

Drawing(s)

Note: *Complete drawings packet on file with Architectural Testing, Inc.*





Limited Lifetime Warranty

Windows and sliding patio doors manufactured by **Custom Vinyl Products, LLC Windows and Doors** are guaranteed to be free of defects in material and workmanship under normal use and conditions. This Limited Warranty extends from the first date of purchase to the original owner and is subject to the terms and conditions stated herein:

- ❖ Vinyl components will be free from blistering, peeling, flaking, rotting, yellowing, or corrosion for the life of the product with the following exception:
 - Painted vinyl finishes – 10 years
 - Euroview vinyl products – 25 years
- ❖ There will be no material obstruction of vision on the internal surfaces of the insulated glass unit caused by seal failure for a period of 25 years with the following exceptions:
 - Laminated glass – 5 years
 - Architectural shaped glass – 10 years
 - Euroview product glass – 10 years
- ❖ Component parts will be covered for a period of 2 years with the following exceptions:
 - Motorized awning operators – 1 year
 - Screens – 90 days

The terms of this Limited Warranty exclude failures which are a result of or involve:

- ❖ Improper installation
- ❖ Accident, negligence, abuse, alteration, or improper use
- ❖ Excessive exposure to heat and cold outside of normal conditions
- ❖ Exposure to caustic agents
- ❖ Torn or damaged screens
- ❖ Glass breakage for any reason
- ❖ Corrosion of non-vinyl components in coastal areas, unless product is assembled with appropriate stainless steel hardware
- ❖ Condensation on external surfaces
- ❖ Failures caused by movement, expansion, or contraction of building or building components

This Limited Warranty covers materials only, and Custom Vinyl Products, LLC does not assume any expense or responsibility involved with the removal or reinstallation of replacement parts or any indirect, consequential, or incidental damage.



CUSTOM VINYL PRODUCTS, LLC

WINDOW INSTALLATION INSTRUCTIONS

- 1) Check that rough opening is between ½" to ¾" larger than the dimensions of the window, height and width.
- 2) Cut house wrap at 45 degree angle from top corners, about 6", and tack up out of the way.
- 3) Place wood shims in bottom right hand corner of the window opening.
- 4) Apply continuous ¼" bead of silicone based caulk to the inside of the nailing flange on the sides and top only.
- 5) Place window unit in the opening. **Sash must be locked during installation.** Rest window against shims in the right hand corner.
- 6) Attach the window using 1 ½" galvanized roofing nails through upper right side of nail fin. **Use pre-punched nail slots. Never use automated nailing devices.**
- 7) Place 2 foot level against left side of jamb and lift left side of window into level position.
- 8) Fasten head jamb.
- 9) Shim left and right side of jambs as to maintain a 1/16" continuous margin between sash and frame.
- 10) Fasten left side of jamb.
- 11) Attach the remainder of the unit approximately every other nail slot.
- 12) Check sash for easy operation. Check margins between sash and frame along the sides as well as top and bottom.
- 13) Apply 4" window flashing tape around the perimeter of the window, sides first then top. **Do not tape the bottom of the window.**

****FOR FURTHER FLASHING INSTRUCTIONS GO TO CUSTOMVINYL.NET**

CAUTION: GENERAL CONTRACTORS

- Keep sill area free of all debris. Do not allow brick or mortar to touch edges of window frame. Allow 1/8" gap and seal with caulk.
- Never use expandable foam insulation between window and rough opening. Use bat insulation.
- Window sash must always be locked during installation.

OPERATING INSTRUCTIONS

- 1) ALWAYS raise the sash before attempting to tilt.
- 2) Sash removal: Raise sash, tilt 90 degrees, and lift at each corner.
- 3) If the sash will not move up or down, remove sash as instructed above and repeat the process.

DuPont™ Flashing Systems Installation Guidelines

Installation Methods for DuPont™ Flashing System AFTER Water-Resistive Barrier (WRB) is Installed

Integral Flanged Window AFTER Water-Resistive Barrier (WRB)

Method applies to following product:

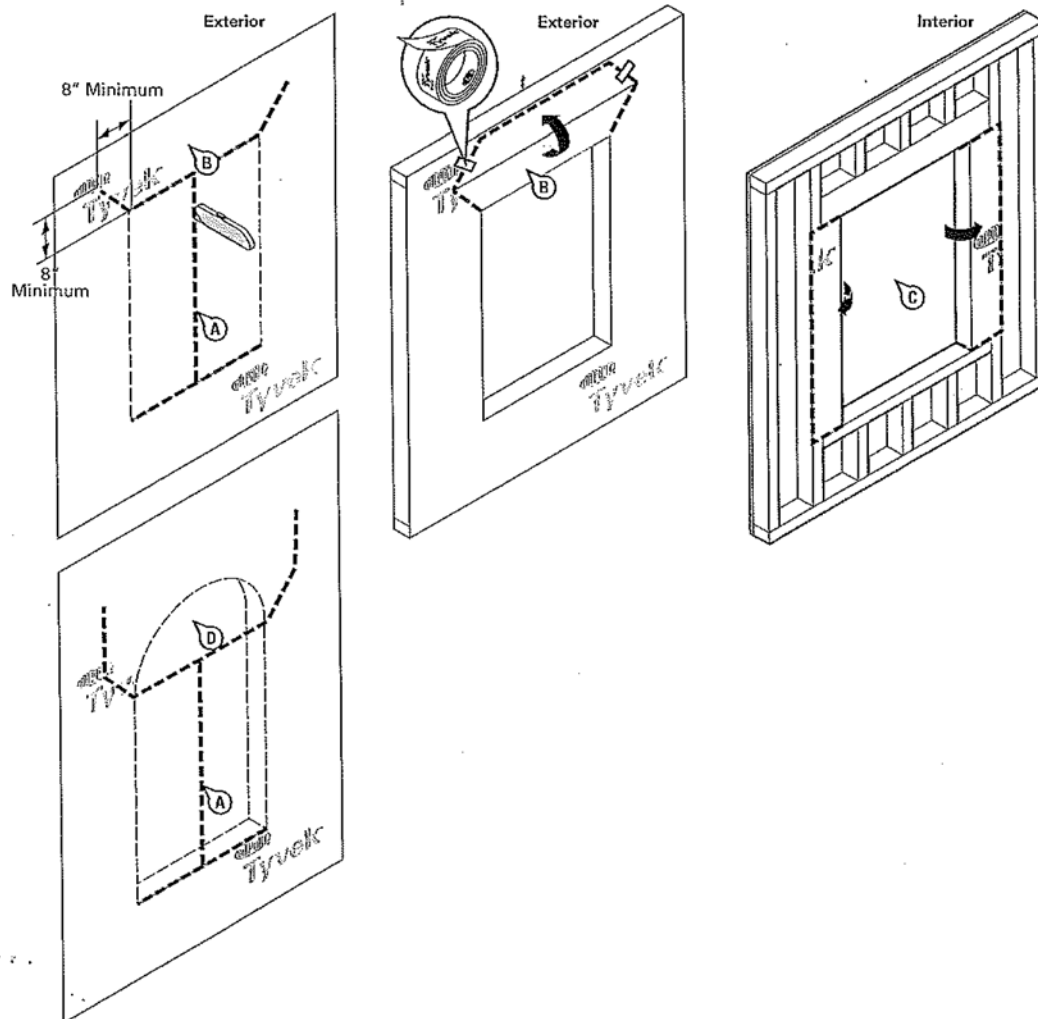
- DuPont™ StraightFlash™
- DuPont™ FlexWrap™

STEP 1

Prepare water-resistive barrier for window installation:

- Make an "I-Cut" (Standard I-Cut) in the WRB (modified I-Cut is also accepted). For an "I-Cut" begin with a horizontal cut across the bottom and the top of the window frame (for round top windows, the cut should begin 2" above the mull joint [see D]). From the center cut straight down to the sill.
- Cut two 45 degree slits a minimum of 8" from the corner of the header to create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation (see step 5). Flip head flap up and temporarily secure with DuPont™ Tyvek® Tape. Some windows and flashing widths may require longer slits.
- Fold side flaps into rough opening, cut excess flaps, and secure.

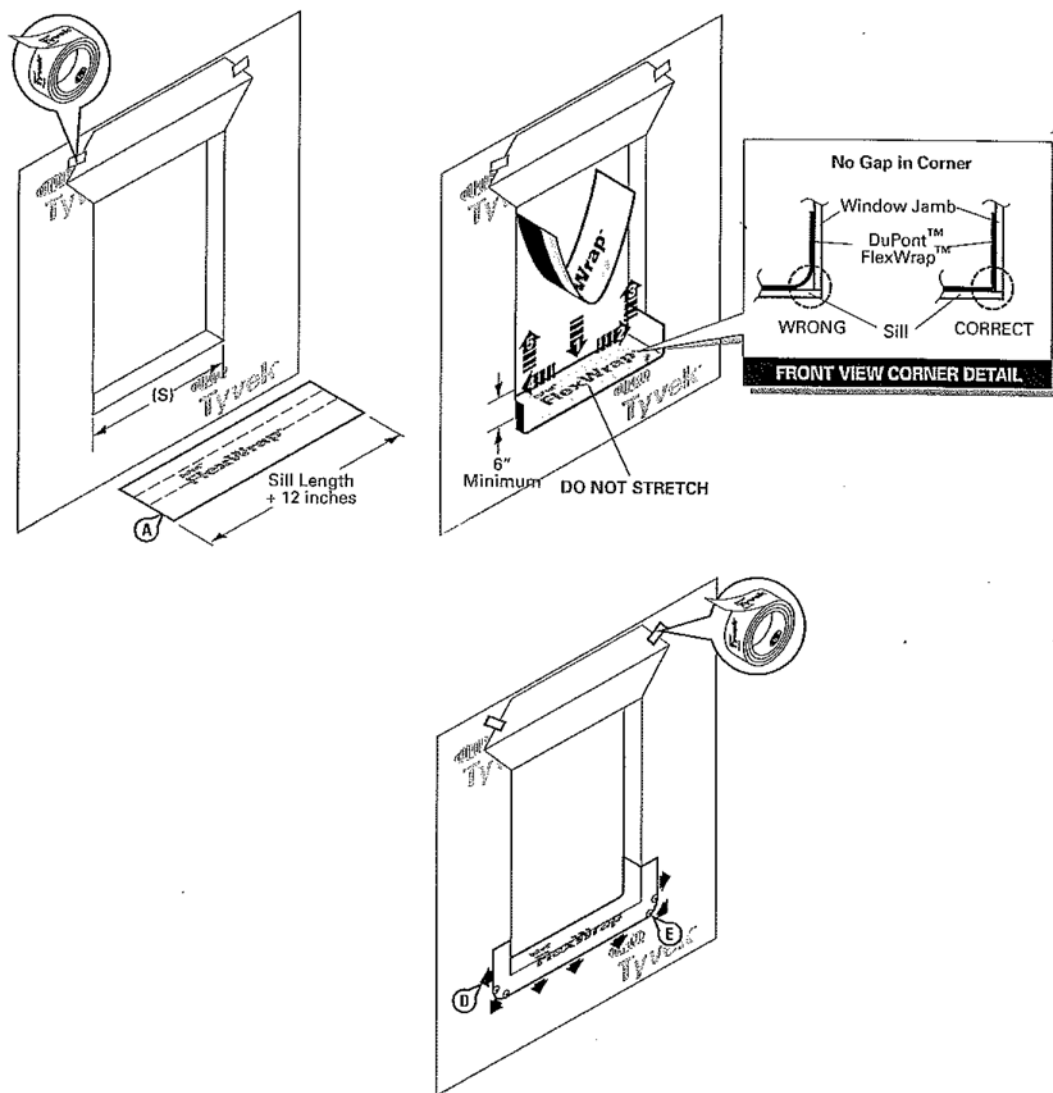
Note: Side flaps should cover interior facing framing stud.



STEP 2 (optional / not required)

- A. Cut DuPont™ FlexWrap™ at least 12" longer than width of rough opening sill (S).
- B. Remove first piece of release paper, cover horizontal sill by aligning inside edge of sill, and adhere into rough opening along sill and up jambs (min. 6" on each side).
- C. Remove second release paper.
- D. Flex DuPont™ FlexWrap™ at bottom corners onto face of wall.
- E. **SECURE EDGES OF DUPONT™ FLEXWRAP™ WITH MECHANICAL FASTENERS.** i.e., DuPont™ Tyvek® Wrap Caps (nails, screws, staples).

Note: Secure fastener along the bottom outer edge of the DuPont™ FlexWrap™ at flexed corners.

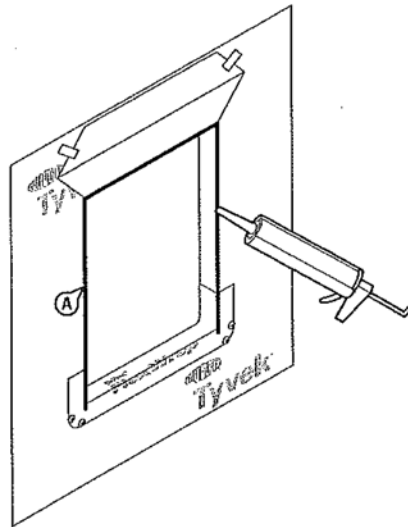


DuPont™ Flashing Systems Installation Guidelines

STEP 3

- A. Apply continuous bead of caulk at the window head and jambs to wall or back side of window mounting flange.

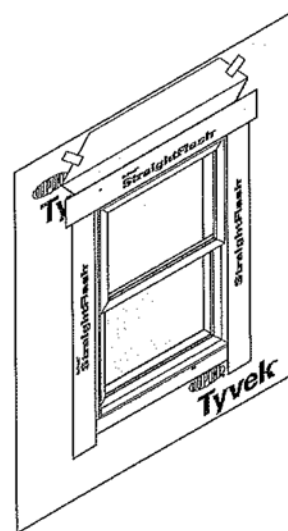
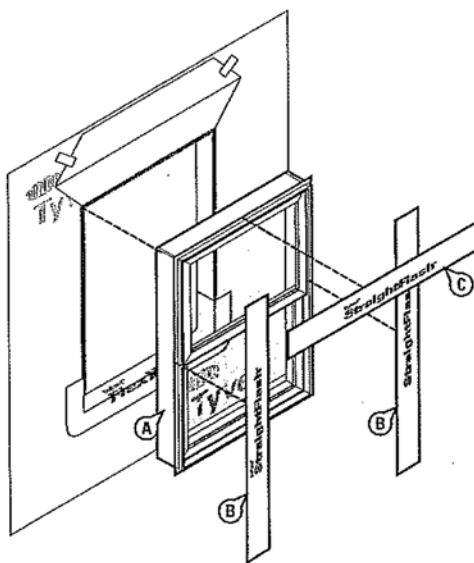
DO NOT APPLY CAULK ACROSS BOTTOM SILL FLANGE to allow for drainage.



FOR RECTANGULAR WINDOWS

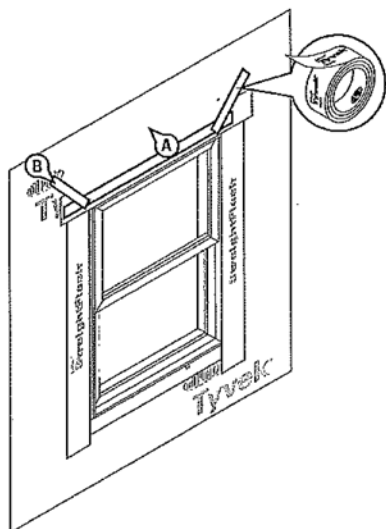
STEP 4

- A. Install window according to manufacturer's instructions.
- B. Cut two pieces of DuPont™ StraightFlash™ or DuPont™ FlexWrap™ for jamb flashing extending 1" above window head flange and below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame.
- C. Cut a piece of DuPont™ StraightFlash™ or DuPont™ FlexWrap™ for head flashing, which extends beyond outer edges of jamb flashings. Remove release paper and install completely covering mounting flange and adhering to exposed sheathing or framing members. (see C)



STEP 5

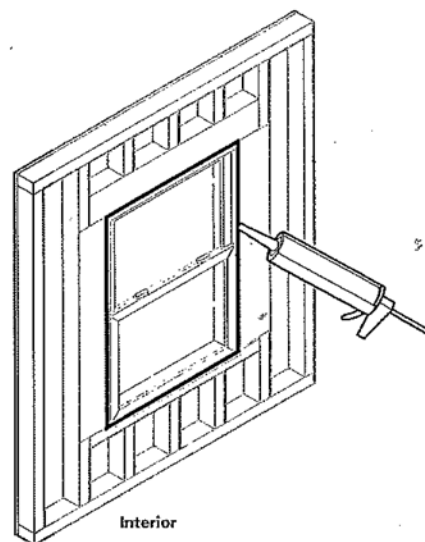
- A. Flip down upper flap of water-resistive barrier so it lays flat across head flashing.
- B. Tape along all cuts in water-resistive barrier and tape across head of the window with DuPont™ Tyvek® Tape.



STEP 6 (optional / not required)

Final Step

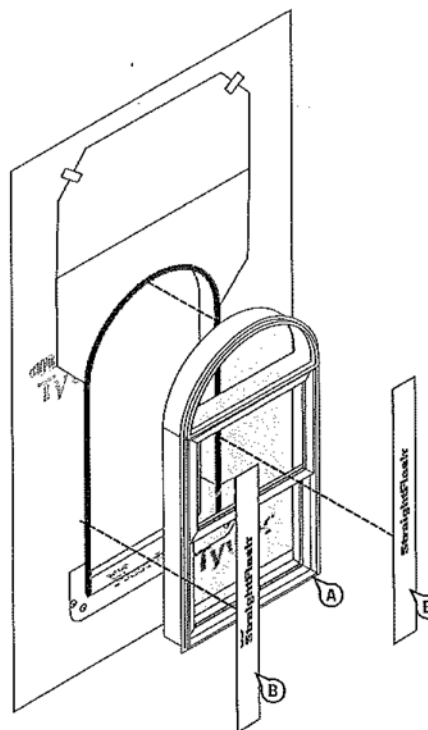
Seal around the window opening at the interior, using caulk (and backer rod as necessary). Caulk and backer rod will also serve as a back dam.



FOR ROUNDTOP WINDOWS

STEP 4

- A. Install window according to manufacturer's instructions.
- B. Cut two pieces of DuPont™ StraightFlash™ or DuPont™ FlexWrap™ for jamb flashing extending 1" above window head flange and below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame.

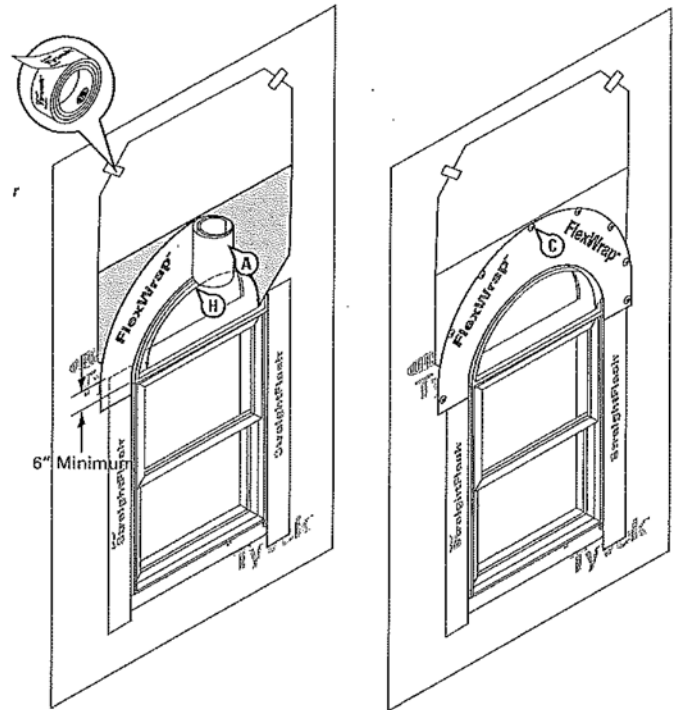


DuPont™ Flashing Systems Installation Guidelines

STEP 5

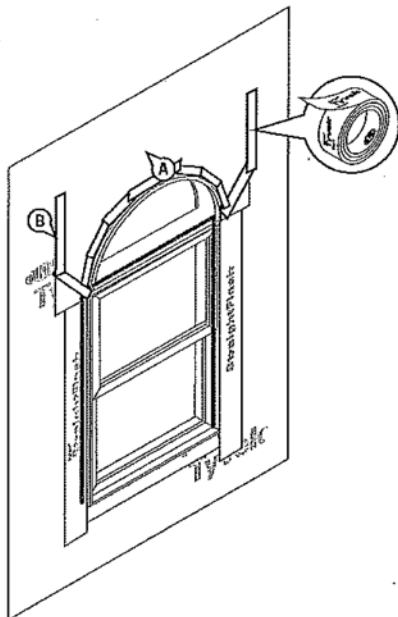
Install head flashing

- Cut head flashing at least 12" longer than the arc length (H) of round-top window.
- Remove both release papers and install to conform around top of window, covering entire mounting flange and adhering to exposed sheathing or framing members. Head flashing should overlap jamb flashings at least 6".
- Secure outer edges of head flashing using mechanical fasteners. e.g. DuPont™ Tyvek® Wrap Caps (nails, screws, staples). SECURE every 6" to 12" along outer perimeter.



STEP 6

- Flip down upper flap of WRB so it lays flat across head flashing.
- Tape along all cuts in WRB and across head of the window with DuPont™ Tyvek® Tape.



STEP 7

Final Step

Seal around the window opening at the interior, using caulk (and backer rod as necessary). Caulk and backer rod will also serve as a back dam.

