Intertek | Architectural Testing

TEST REPORT

Report No.: B7721.06-501-47

Rendered to:

CUSTOM VINYL PRODUCTS
Newport News, Virginia

PRODUCT TYPE: PVC Sliding Glass Door, Type XO
SERIES/MODEL: PD21 PATIO DOOR

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

Title	Summary of Results
Primary Product Designator	Class R-PG50 1816 x 2010 (72 x 80) - SGD
Design Pressure	±2400 Pa (±50.13 psf)
Air Infiltration	0.7 L/s/m^2 (0.14 cfm/ft^2)
Water Penetration Resistance Test Pressure	360 Pa (7.52 psf)

Test Completion Date: 03/05/2012

Reference must be made to Report No. B7721.06-501, dated 10/31/14 for complete test specimen description and detailed test results.

1.0 Report Issued To: Custom Vinyl Products
260 Enterprise Drive
Newport News, Virginia 23603

2.0 Test Laboratory: Architectural Testing, Inc.
1140 Lincoln Avenue
Springdale, Pennsylvania 15144
724-275-7100

3.0 Project Summary:

3.1 Product Type: PVC Sliding Glass Door, Type XO

3.2 Series/Model: PD21 PATIO DOOR

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 1816 x 2010 (72 x 80) - SGD rating.

This product was originally tested as the Veka Inc. Series/Model PD17WW, PVC Sliding Glass Door, Type XO and is a reissue of the original Report No. B7721.06-501-47. This report is reissued in the name of Custom Vinyl Products through written authorization by Veka Inc.

3.3 Test Dates: 02/14/2012 – 03/5/2012

3.4 Test Record Retention End Date: All test records for this report will be retained until March 15, 2016.

3.5 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".

3.6 Test Sample 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.

3.7 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 B. Any deviations are documented herein or on the drawings.

3.8 List of Official Observers:

Name	Company
Doug Merry	Veka Inc.
Cornell Charles	Veka Inc.
Joseph Allison	Architectural Testing, Inc

4.0 Test Specification(s):

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: 3.7 m^2 (39.5 ft^2)	**Width**		**Height**	
	millimeters	**inches**	**millimeters**	**inches**
Overall size	1816	71-1/2	2010	79-1/2
Panel size	924	36-3/8	1943	76-1/2
Screen size	927	36-1/2	1969	77-1/2

5.2 Frame Construction:

Frame Member	**Material**	**Description**
Head, sill, jambs, and fixed meeting stile	PVC	Extruded
Equal glass adaptors, and thresh hold	PVC	Extruded
Roller track	Aluminum	Extruded

	Joinery Type	**Detail**
All corners	Mitered	Thermally welded
Fixed meeting stile	Coped and butted	Secured at the head and sill with four #8 x 3" long truss head fasteners, two at each end and sealed with a silicone sealant
Equal glass adapters, and thresh hold	Straight-cut	Snap-in and sealed with a silicone sealant at each end

5.0 Test Specimen Description: (Continued)

5.3 Panel Construction:

Panel 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 by 0.270" high center fin pile	2 Rows	Bottom rail, top rail, and lock stile
0.187" backed by 0.300" high center fin pile	1 Row	Meeting 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.*

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
1" IG	Butyl with corrugated substrate	1/8" tempered	1/8" tempered	Set from the exterior against a silicone sealant and secured with rigid vinyl glazing beads

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Panel	1	803 x 1822	31-5/8 x 71-3/4	5/8
Frame	1	810 x 1816	31-7/8 x 71-1/2	5/8

5.0 Test Specimen Description: (Continued)

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weepslot	1-1/4" wide by 5/16" high	2	Exterior sill face, one 3" from each end
Weepslot	1-1/4" wide by 5/16" high	4	Intermediate sill walls (below screen track), one 3" from each end
Weepslot	1" wide by 3/16" high	4	Intermediate sill walls (below screen track), one at each end
Weepslot	1-1/2" wide by 1/4" high	2	Intermediate sill walls (center most), one at each end
Weephole	1" wide by 3/16" deep	2	Interior sill track, one 3-1/2" from each end
Weep notch	1-1/2" wide by 1/4 deep	2	Aluminum roller track, one 2-1/2" from each end.

5.7 Hardware:

Description	Quantity	Location
Handle/lock assembly with double mortise lock	1	Lock stile with keeper on the mating jamb
Dual steel roller assembly	2	Bottom rail, one at each end

5.8 Reinforcement:

Drawing Number	Location	Material
3RFPD34SOM	Fixed meeting stile	Formed steel
3RFPD24SOM	Interlock stile	Formed steel
3RFPD03SOM	Lock stile	Formed steel

5.9 Screen Construction:

Frame Material	Corner Construction	Mesh Type	Mesh Attachment Method
Extruded aluminum	Mitered with metal corner keys	Fiberglass	Flexible 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 door was sealed to the wood buck with a silicone sealant.

Location	Anchor Description	Anchor Location
Integral nail fin	#8 x 2" long truss head fastener	Spaced approximately 10" on center, and starting in each corner
Jamb	#8 x 3" long fastener	Two through the keeper at the jamb

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: 76 N (17 lbf) Maintain motion: 67 N (15 lbf) Locks: 22 N (5 lbf)	135 N (30 lbf) max. 90N (20 lbf) max. 100 N (22.5 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.7 L/s/m^2 (0.14 cfm/ft^2)	1.5 L/s/m^2 (0.3 cfm/ft^2) max.	1
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 842, 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)

Test Specimen #1: (Continued)

Title of Test	Results	Allowed	Note
Optional Performance			
Water Penetration, per ASTM E 547 at 260 Pa (7.52 psf)	Pass	No leakage	2
Uniform Load Deflection, per ASTM E 330 taken at the exterior meeting stile +2400 Pa (+50.13 psf) -2400 Pa (-50.13 psf)	 24.5 mm (0.97") 19.3 mm (0.76")	 Report Only	 4, 5, 6
Uniform Load Structural, per ASTM E 330 taken at the exterior meeting stile +3600 Pa (+75.19 psf) -3600 Pa (-75.19 psf)	 2.5 mm (0.10") 1.0 mm (0.04")	 7.9 mm (0.31") max. 7.9 mm (0.31") 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.

This report is reissued in the name of Custom Vinyl Products through written authorization of Veka Inc. to whom the original report was rendered. The original Veka Inc. Report No. is B7721.01-501-47.

Architectural Testing will service this report for the entire test record retention period. Test records that are retained 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.

Joseph E. Allison/sld

Digitally Signed for: Joseph E. Allison by Sandy L. DiCaro

Joseph E. Allison
Senior Technician

Lynn George

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: Drawings (2) Complete drawings packet on file with Architectural Testing, Inc.

Appendix A

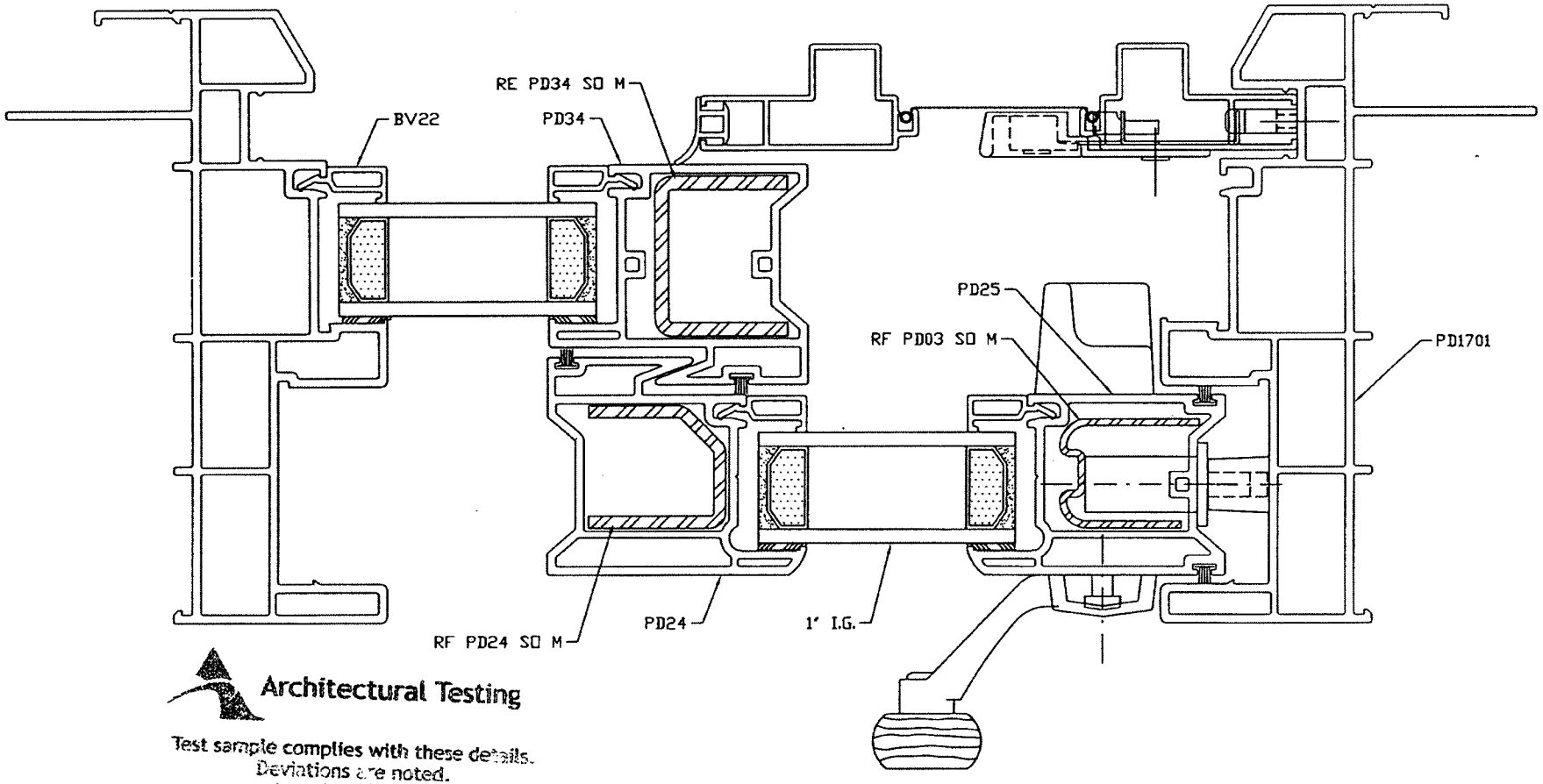
Alteration Addendum

***Note**: No alterations were required.*

Appendix B

Drawings

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



Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 157761

Date 3/7/16 Tech

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

1	UPDATED PD 24 PROFILE	4/21/08 BJF
	REVISIONS	DATE

VEKA INC.
100 VEKA DRIVE
FOMBELL, PA 16123

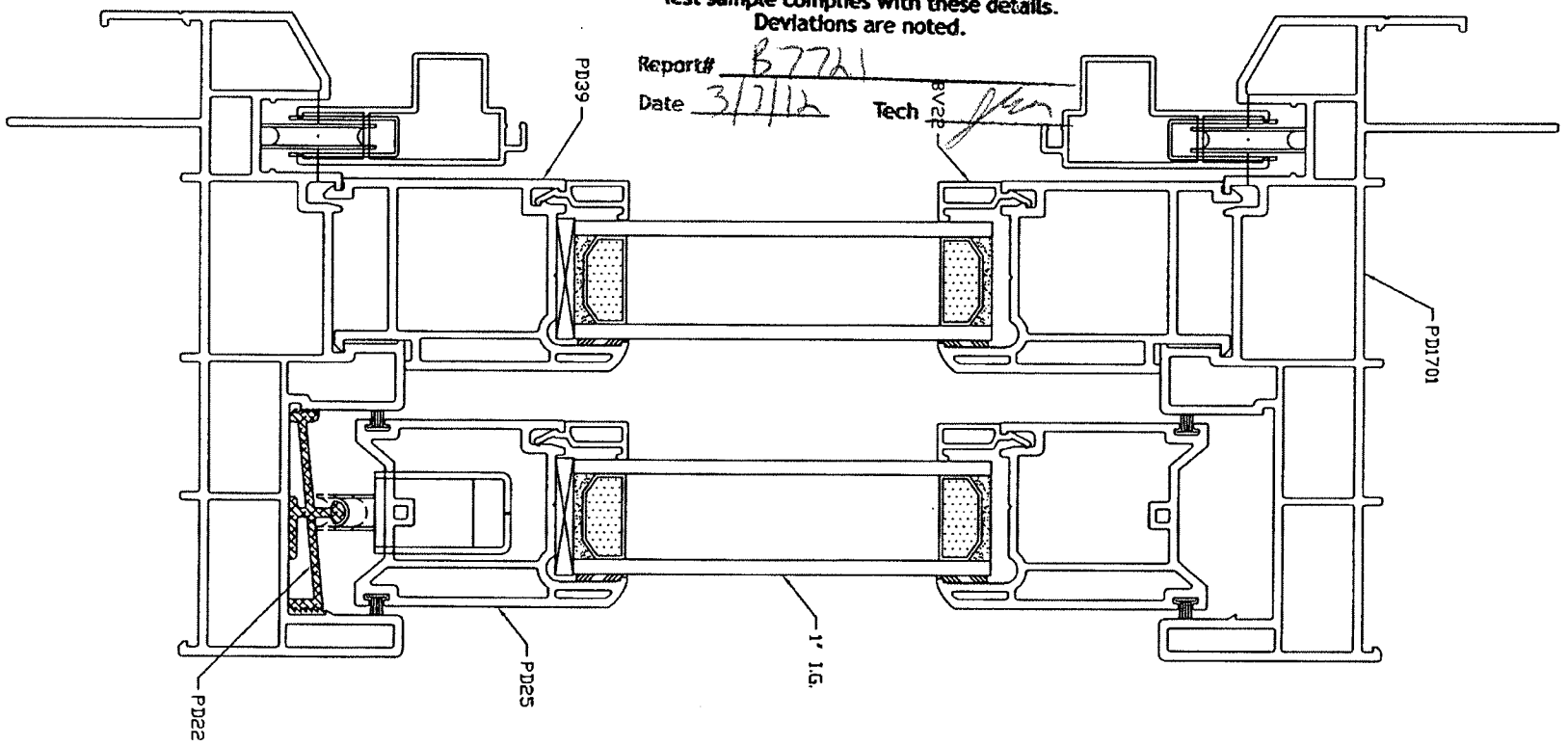
DRAWN: BJF	DATE: 6 APR 06	SCALE: FULL
CHK'D:	DATE:	APPV'D:
TITLE PATIO DOOR PD17WW HORIZONTAL ASSEMBLY – DP50		DWG. # PD17W'

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# B7721

Date 3/7/12 Tech



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

	REVISIONS	DATE

VEKA INC.
100 VEKA DRIVE
FOMBELL, PA 16123

DRAWN: BJF	DATE: 5 APR 06	SCALE: FULL
CHK'D:	DATE:	APPV'D:
TITLE PATIO DOOR PD17WW VERTICAL ASSEMBLY, EQUAL GLASS		DWG. # PD17WW