

CANADA: #16 - 211 SCHOOLHOUSE STREET COQUITLAM **BRITISH COLUMBIA** V3K 4X9 T: 604.527.8378 F: 604.527.8368 www.qai.org • info@qai.org

UNITED STATES: 8385 WHITE OAK AVENUE RANCHO CUCAMONGA CALIFORNIA 91730 T: 909.483.0250 F: 905.483.0336 www.qai.org • info@qai.org

### TEST REPORT # T796-1

DATE:

October 16, 2012

CLIENT:

Westeck Windows Mfg. Inc.

8104 Evans Road

Chilliwack, British Columbia

V2R 5R8

Contact: Terry Adamson

SAMPLE ID:

Inswing door - Fiberglass slab

SAMPLE DESCRIPTION:

Width: 954 mm Height: 2078 mm See page 3 for full description.

SAMPLING PROCEDURES:

See page 2 for the sampling procedure.

**DATE OF RECEIPT:** 

October 5, 2012

DATE(S) OF TESTING:

October 9, 2012 - December 19, 2012

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA 101/I.S.2/A440-08 NAFS - North American Fenestration Standard

/ Specification for windows, doors and skylights

**TEST RESULTS:** 

See Page 3 for the test results.

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TESTING PERFORMED AT: Quality Auditing Institute, Coquitlam

Reported By

Reviewed By

Jason Komorski **Project Manager** 

**Kevin Saito** 

Windows Division Manager

Client: Westeck Windows Mfg. Inc.

Date: October 16, 2012

# **Product Ratings:**

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-08 NAFS - North
	American Fenestration Standard / Specification for
	windows, doors and skylights Result:
Force To Latch Test (5.3.1.2.1)	16.8 lbf
Deadbolt Force Test (5.3.1.2.2)	N/A – Deadbolt was not provided
Air Tightness (ASTM E283)	Pressure differential = 75 Pa
	A3 Rating
	Infiltration result = 0.009 cfm/ft <sup>2</sup>
	Exfiltration result = 0.014 cfm/ft <sup>2</sup>
	Average result = 0.012 cfm/ft <sup>2</sup>
Water Tightness (ASTM E331)	Maximum pressure differential = 510 Pa (PG 70 - 10.50 psf)
Wind Load Resistance – Deflection (ASTM E330 – Procedure A)	Maximum pressure differential = 2160 Pa (PG 45 - 45 psf)
Wind Load Resistance – Blowout (ASTM E330 – Procedure A)	Maximum pressure differential = 3240 Pa (PG 45 - 67.5 psf)
Forced Entry (AAMA 1304)	Pass
Thermoplastic Corner Weld Test	N/A
(Clause 5.3.6.2)	
Operation/cycling performance	Pass 100,000 cycles
(5.3.6.10)	
Vertical Loading Resistance (Clause	Pass
5.3.6.11)	Maximum load applied:150 lbf
	Maximum vertical deflection: 0.253"
	Residual vertical defletion: 0.000"
	Diagonal deformation: 0.000"

Performance Classification:

LC

Performance Grade:

45 PG

Maximum Size Tested:

954 mm wide x 2078 mm tall (38" x 82")

### **Primary Designator:**

Class LC - PG45: Size tested 954 x 2078 mm (38 x 82 in) - Side Hinged Door (Type SHD) Class LC - PG2160 (metric): Size tested 954 x 2078 mm - Side Hinged Door (Type SHD)

#### Secondary Designator:

Positive Design Pressure (DP) = 2160 Pa (45 psf) Negative Design Pressure (DP) = -2160 Pa (-45 psf) Water Penetration Resistance Test Pressure = 510 Pa (10.50 psf) Canadian Air Infiltration / Exfiltration = A3 Level

Note: AAMA/WDMA/CSA 101/I.S.2/A440-08, Clause 5.2.5: The air, water and structural tests were performed on test specimens installed per the method outlined in the test conditions section of this report. The test procedures are designed to test the performance of the test specimen only and are not used to test the performance of the installation, in particular the perimeter sealant joint and the anchoring of the assembly. However, products not installed according to the installation method described in this report may not perform to an equivalent performance level.



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### TEST REPORT # T796-2

DATE:

October 16, 2012

CLIENT:

Westeck Windows Mfg. Inc.

8104 Evans Road

Chilliwack, British Columbia

**V2R 5R8** 

Contact: Terry Adamson

SAMPLE ID:

Inswing door - Aluminum clad wood slab

SAMPLE DESCRIPTION:

Width: 954 mm Height: 2078 mm See page 3 for full description.

SAMPLING PROCEDURES:

See page 2 for the sampling procedure.

DATE OF RECEIPT:

October 5, 2012

DATE(S) OF TESTING:

October 9, 2012 - December 19, 2012

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA 101/I.S.2/A440-08 NAFS - North American Fenestration Standard

/ Specification for windows, doors and skylights

**TEST RESULTS:** 

See Page 3 for the test results.

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TESTING PERFORMED AT: Quality Auditing Institute, Coquitlam

Reported By

Reviewed By

Jason Komorski **Project Manager** 

**Kevin Saito** 

Windows Division Manager

Quality Auditing Institute Test Report #: T796-2 Client: Westeck Windows Mfg. Inc.

Date: October 16, 2012

# **Product Ratings:**

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-08 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights Result:
Force To Latch Test (5.3.1.2.1)	16.8 lbf
Deadbolt Force Test (5.3.1.2.2)	N/A – Deadbolt was not provided
Air Tightness (ASTM E283)	Pressure differential = 75 Pa A3 Rating Infiltration result = 0.009 cfm/ft² Exfiltration result = 0.009 cfm/ft² Average result = 0.009 cfm/ft²
Water Tightness (ASTM E331)	Maximum pressure differential = 330 Pa (PG 45 – 6.75 psf)
Wind Load Resistance – Deflection (ASTM E330 – Procedure A)	Maximum pressure differential = 2160 Pa (PG 45 - 45 psf)
Wind Load Resistance – Blowout (ASTM E330 – Procedure A)	Maximum pressure differential = 3240 Pa (PG 45 - 67.5 psf)
Forced Entry (AAMA 1304)	Pass
Thermoplastic Corner Weld Test (Clause 5.3.6.2)	N/A
Operation/cycling performance (5.3.6.10)	Pass 100,000 cycles
Vertical Loading Resistance (Clause	Pass
5.3.6.11)	Maximum load applied:150 lbf
	Maximum vertical deflection: 0.253"
	Residual vertical defletion: 0.000"
	Diagonal deformation: 0.000"

**Performance Classification:** 

LC

Performance Grade:

45 PG

Maximum Size Tested:

954 mm wide x 2078 mm tall (38" x 82")

#### **Primary Designator:**

Class LC – PG45: Size tested 954 x 2078 mm (38 x 82 in) – Side Hinged Door (Type SHD) Class LC – PG2160 (metric): Size tested 954 x 2078 mm – Side Hinged Door (Type SHD)

#### Secondary Designator:

Positive Design Pressure (DP) = 2160 Pa (45 psf) Negative Design Pressure (DP) = -2160 Pa (-45 psf) Water Penetration Resistance Test Pressure = 330 Pa (6.75 psf) Canadian Air Infiltration / Exfiltration = A3 Level

Note: AAMA/WDMA/CSA 101/I.S.2/A440-08, Clause 5.2.5: The air, water and structural tests were performed on test specimens installed per the method outlined in the test conditions section of this report. The test procedures are designed to test the performance of the test specimen only and are not used to test the performance of the installation, in particular the perimeter sealant joint and the anchoring of the assembly. However, products not installed according to the installation method described in this report may not perform to an equivalent performance level.



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### TEST REPORT # T796-6

DATE:

April 3, 2013

CLIENT:

Westeck Windows Mfg. Inc.

8104 Evans Road

Chilliwack, British Columbia

V2R 5R8

Contact: Terry Adamson

SAMPLE ID:

Double Inswing Door with Fiberglass Full Lite Slabs

SAMPLE DESCRIPTION:

Width: 1850 mm Height: 2078 mm See page 3 for full description.

SAMPLING PROCEDURES:

See page 2 for the sampling procedure.

DATE OF RECEIPT:

February 10, 2013

DATE(S) OF TESTING:

February 13, 2013 - April 1, 2013

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA 101/I.S.2/A440-08 NAFS - North American Fenestration Standard

/ Specification for windows, doors and skylights

**TEST RESULTS:** 

See Page 3 for the test results.

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TESTING PERFORMED AT: Quality Auditing Institute, Coquitlam

Reported By

Reviewed By

Jason Komorski **Project Manager** 

**Kevin Saito** 

**Windows Division Manager** 

**Quality Auditing Institute** Test Report #: T796-6 Client: Westeck Windows Mfg. Inc.

Date: April 3, 2013

## **Product Ratings:**

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-08 NAFS - North
	American Fenestration Standard / Specification for
	windows, doors and skylights Result:
Force To Latch Test (5.3.1.2.1)	14.7 lbf
Deadbolt Force Test (5.3.1.2.2)	N/A – Deadbolt was not provided
Air Tightness (ASTM E283)	Pressure differential = 75 Pa
	A3 Rating
	Infiltration result = 0.002 cfm/ft²
	Exfiltration result = 0.002 cfm/ft <sup>2</sup>
	Average result = 0.002 cfm/ft <sup>2</sup>
Water Tightness (ASTM E331)	Maximum pressure differential = 510 Pa (PG 70 – 10.50 psf)
Wind Load Resistance - Deflection	Maximum pressure differential = 2160 Pa (PG 45 - 45 psf)
(ASTM E330 – Procedure A)	
Wind Load Resistance – Blowout	Maximum pressure differential = 3240 Pa (PG 45 – 67.5 psf)
(ASTM E330 – Procedure A)	
Forced Entry (AAMA 1304)	Pass
Thermoplastic Corner Weld Test	N/A
(Clause 5.3.6.2)	
Operation/cycling performance	Pass 100,000 cycles
(5.3.6.10)	
Vertical Loading Resistance (Clause	Pass
5.3.6.11)	Maximum load applied:150 lbf
	Maximum vertical deflection: 0.253"
	Residual vertical defletion: 0.000"
	Diagonal deformation: 0.000"

**Performance Classification:** 

LC

Performance Grade:

45 PG

Maximum Size Tested:

1850 mm wide x 2078 mm tall (73" x 82")

#### **Primary Designator:**

Class LC - PG45: Size tested 1850 x 2078 mm (73 x 82 in) - Side Hinged Door (Type SHD-DD) Class LC - PG2160 (metric): Size tested 1850 x 2078 mm - Side Hinged Door (Type SHD-DD)

#### Secondary Designator:

Positive Design Pressure (DP) = 2160 Pa (45 psf) Negative Design Pressure (DP) = -2160 Pa (-45 psf) Water Penetration Resistance Test Pressure = 510 Pa (10.50 psf) Canadian Air Infiltration / Exfiltration = A3 Level

Note: AAMA/WDMA/CSA 101/I.S.2/A440-08, Clause 5.2.5: The air, water and structural tests were performed on test specimens installed per the method outlined in the test conditions section of this report. The test procedures are designed to test the performance of the test specimen only and are not used to test the performance of the installation, in particular the perimeter sealant joint and the anchoring of the assembly. However, products not installed according to the installation method described in this report may not perform to an equivalent performance level.



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### TEST REPORT # T796-7 Ed.2

DATE:

Sep 22, 2015

CLIENT:

Westeck Windows Mfg. Inc.

8104 Evans Road

Chilliwack, British Columbia

V2R 5R8

Contact: Terry Adamson

SAMPLE ID:

Double Inswing Door with Fiberglass Lite Slabs

SAMPLE DESCRIPTION:

Width: 1850 mm; Height: 2476 mm; See pages 4 & 5 for full description.

SAMPLING PROCEDURES: See page 2 for the sampling procedure.

DATE OF RECEIPT:

September 30, 2015

DATE(S) OF TESTING:

September 30, 2015 - November 25, 2013

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration

Standard / Specification for windows, doors and skylights

TEST RESULTS:

See page 3 for the test results.

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TESTING PERFORMED AT: QAI Laboratories Ltd., Coquitlam

Reported by

Reviewed by

Jason Komorski **Project Manager**  **Kevin Saito Division Manager** 



Client: Westeck Windows Mfg. Inc.

Job No.: T796-7 Ed.2 Date: Sep 22, 2015

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# **Product Ratings:**

Table 1: Summary of test results - Hardware Bagged

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights Result:
Force To Latch Test (6.4.5.1)	Pass – 14.7 lbf
Air Leakage Resistance (ASTM E283)	Pressure differential = 75 Pa Infiltration result = 0.079 L/s/m² (0.016 cfm/ft²) - A3 Level a Exfiltration result = 0.151 L/s/m² (0.030 cfm/ft²) - A3 Level a
Water Penetration Resistance Test (ASTM E547)	Maximum pressure differential = 260 Pa (DP 35 – 5.25 psf) <sup>a</sup>
Uniform Load Deflection Test at Design Pressure (ASTM E330 – Procedure A)	Maximum pressure differential = 1200 Pa (DP 25 - 25 psf)
Uniform Load Structural Test (ASTM E330 – Procedure A)	Maximum pressure differential = 1800 Pa (DP 25 - 37.5 psf) Class set limit: 9.90 mm (0.390") Maximum permanent set: 0.03 mm (0.001")
Forced Entry Resistance Test (AAMA 1304)	Pass
Operation/cycling-slam performance (6.4.7)	Pass 100,000 cycles
Vertical Loading Resistance (Clause	Pass
6.4.8)	Maximum load applied:150 lbf
	Maximum vertical deflection: 0.253"
	Residual vertical deflection: 0.000"
	Diagonal deformation: 0.000"

**Performance Classification:** 

LC

Performance Grade:

PG 25

Maximum Size Tested:

1850 mm wide x 2476 mm tall (72.8" x 97.5")

**Primary Designator:** 

Class LC - PG25: Size tested 1850 x 2476 mm (72.8 x 97.5 in) - Side Hinged Door (Type SHD)

Class LC – PG1200 (SI): Size tested 1850 x 2476 mm – Side Hinged Door (Type SHD)

**Secondary Designator:** 

Positive Design Pressure (DP) = 1200 Pa (25 psf)
Negative Design Pressure (DP) = -1200 Pa (-25 psf)
Water Penetration Resistance Test Pressure = 260 Pa (5.25 psf)
Canadian Air Infiltration / Exfiltration = A3 Level

Note: AAMA/WDMA/CSA 101/I.S.2/A440-11, Clause 9.2.5: The air, water and structural tests were performed on test specimens installed per the method outlined in the test conditions section of this report. The test procedures are designed to test the performance of the test specimen only and are not used to test the performance of the installation, in particular the perimeter sealant joint and the anchoring of the assembly. However, products not installed according to the installation method described in this report may not perform to an equivalent performance level.

Effective Date: January 15, 2009 Revision Date: November 6, 2014 TF0000 - Test Report Template

Revision 3

<sup>&</sup>lt;sup>a</sup>The handle and deadbolt were bagged off and were not part of this test.



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### TEST REPORT # T796-12

DATE:

March 31, 2014

CLIENT:

Westeck Windows Mfg. Inc.

8104 Evans Road

Chilliwack, British Columbia

V2R 5R8

Contact: Terry Adamson

SAMPLE ID:

8' In-swing Door with Sidelite

SAMPLE DESCRIPTION:

Width: 2213 mm Height: 2477 mm See page 3 for full description.

**SAMPLING PROCEDURES:** 

See page 2 for the sampling procedure.

DATE OF RECEIPT:

March 6, 2014

DATE(S) OF TESTING:

March 6, 2014

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard

/ Specification for windows, doors and skylights

**TEST RESULTS:** 

See Page 3 for the test results.

**CONTENTS:** 

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**TESTING PERFORMED AT:** 

Quality Auditing Institute, Coquitlam

Reported By

**Reviewed By** 

Vincent Gador Project Manager Kevin Saito Division Manager Quality Auditing Institute Test Report #: T796-12 Client: Westeck Windows Mfg. Inc.

Date: March 31, 2014

## Window Ratings:

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights Result:
Force To Latch Test (5.3.1.2.1)	Pass – 11.4 lbf
Air Leakage Resistance (ASTM E283)	Pressure differential = 75 Pa A3 Level Infiltration result = 0.283 L/s/m² (0.056 cfm/ft²) – A3 Level Exfiltration result = 0.154 L/s/m² (0.030 cfm/ft²) – A3 Level
Water Penetration Resistance Test (ASTM E547)	Maximum pressure differential = 330 Pa (PG 45 – 6.75 psf) <sup>1</sup>
Uniform Load Deflection Test at Design Pressure (ASTM E330 – Procedure A)	Maximum pressure differential = 1920 Pa (PG 40 - 40 psf)
Uniform Load Structural Test (ASTM E330 – Procedure A)	Maximum pressure differential = 2880 Pa (PG 40 - 60 psf)

Performance Classification:

LC

Performance Grade:

PG 40

Maximum Size Tested:

2213 mm wide x 2477 mm tall (87" x 97-1/2")

**Primary Designator:** 

Class LC - PG 40 - MA: Size tested 97-1/2 in span/22.8 ft<sup>2</sup>

Class LC - PG 1920 (metric): MA: Size tested 2477 mm span/2.12 m<sup>2</sup>

#### Secondary Designator:

Positive Design Pressure (DP) = 1920 Pa (40 psf) Negative Design Pressure (DP) = -1920 Pa (-40 psf) Water Penetration Resistance Test Pressure = 330 Pa (6.75 psf) Canadian Air Infiltration / Exfiltration = A3 Level

Note: AAMA/WDMA/CSA 101/I.S.2/A440-11, Clause 9.2.5: The air, water and structural tests were performed on test specimens installed per the method outlined in the test conditions section of this report. The test procedures are designed to test the performance of the test specimen only and are not used to test the performance of the installation, in particular the perimeter sealant joint and the anchoring of the assembly. However, products not installed according to the installation method described in this report may not perform to an equivalent performance level.

<sup>&</sup>lt;sup>1</sup> The door was bagged off during the test to evaluate the maximum performance grade for the side lite. The side lite qualifies for a performance grade of PG 55: 400 Pa (8.25 psf) for the Water Penetration Resistance Test (ASTM



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**UNITED STATES:** 8385 WHITE OAK AVENUE RANCHO CUCAMONGA CALIFORNIA 91730 T: 909.483.0250 F: 905.483.0336 www.qai.org • info@qai.org

### TEST REPORT # T796-13

DATE:

April 7, 2014

LIENT:

Westeck Windows Mfg. Ltd.

8104 Evans Road

Chilliwack, British Columbia

**V2R 5R8** 

Contact: Terry Adamson

SAMPLE ID:

T/SDS Inswing Door with Multioint Lock

SAMPLE DESCRIPTION:

Width: 2848 mm Height: 3042 mm See page 3 for full description.

SAMPLING PROCEDURES:

See page 2 for the sampling procedure.

**DATE OF RECEIPT:** 

February 20, 2014

DATE(S) OF TESTING:

February 21, 2014

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard

/ Specification for windows, doors and skylights

**TEST RESULTS:** 

See Page 3 for the test results.

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Test Report Pages 1 through 10, Appendix A1 through A28

TESTING PERFORMED AT: Quality Auditing Institute, Coquitlam

Reported By

**Reviewed By** 

**Vincent Gador Project Manager**  Jason Komorski Reviewer

Quality Auditing Institute Test Report #: T796-13 Client: Westeck Windows Mfg. Ltd.

Date: April 7, 2014

## Window Ratings:

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights Result:
Force To Latch Test (5.3.1.2.1)	Pass – 13.8 lbf
Air Leakage Resistance (ASTM E283)	Pressure differential = 75 Pa A3 Level <sup>a</sup> Infiltration result = 0.125 L/s/m <sup>2</sup> (0.025 cfm/ft <sup>2</sup> ) – A3 Level <sup>a</sup> Exfiltration result = 0.136 L/s/m <sup>2</sup> (0.027 cfm/ft <sup>2</sup> ) – A3 Level <sup>a</sup>
Water Penetration Resistance Test (ASTM E547)	Maximum pressure differential = 400 Pa (PG 55 – 8.25 psf) <sup>a</sup>
Uniform Load Deflection Test at Design Pressure (ASTM E330 – Procedure A)	Maximum pressure differential = 1680 Pa (PG 35 - 35 psf)
Uniform Load Structural Test (ASTM E330 – Procedure A)	Maximum pressure differential = 2520 Pa (PG 35 - 52.5 psf)

**Performance Classification:** 

 $\mathsf{LC}_\mathsf{p}$ 

Performance Grade:

PG 35

Maximum Size Tested:

2848 mm wide x 3042 mm tall (112" x 120")

**Primary Designator:** 

Class LC - PG 35 - MA: Size tested 112 in span/29.3 ft<sup>2</sup>

Class LC - PG 1680 (metric): MA: Size tested 2848 mm span/2.72 m<sup>2</sup>

Secondary Designator:

Positive Design Pressure (DP) = 1680 Pa (35 psf)
Negative Design Pressure (DP) = -1680 Pa (-35 psf)
Water Penetration Resistance Test Pressure = 400 Pa (8.25 psf)
Canadian Air Infiltration / Exfiltration = A3 Level

Note: AAMA/WDMA/CSA 101/I.S.2/A440-11, Clause 9.2.5: The air, water and structural tests were performed on test specimens installed per the method outlined in the test conditions section of this report. The test procedures are designed to test the performance of the test specimen only and are not used to test the performance of the installation, in particular the perimeter sealant joint and the anchoring of the assembly. However, products not installed according to the installation method described in this report may not perform to an equivalent performance level.

The handle and deadbolt were bagged off and were not part of this test.

<sup>&</sup>lt;sup>b</sup> The following tests were not completed: -Deadbolt Force Test (5.3.1.2.2) -Forced Entry (AAMA 1304) - Operation/cycling performance (5.3.6.10) -Vertical Loading Resistance (Clause 5.3.6.11)



16-211 Schoolhouse Street Coquitlam, BC V3K 4X9 (604) 527-8378 ph. | (604) 527-8368 fx. www.gai.org

## TEST REPORT # T796-15

**REVISION DATE:** 

June 20, 2017

CLIENT:

Westeck Windows Mfg. Ltd.

8104 Evans Road

Chilliwack, British Columbia

V2R 5R8

Contact: Terry Adamson

SAMPLE ID:

Inswing door - Fiberglass Slab - Double Drilled

SAMPLE DESCRIPTION:

Width: 950 mm Height: 2071 mm See page 3 for full description.

SAMPLING PROCEDURES: See page 2 for the sampling procedure.

DATE OF RECEIPT:

November 26, 2014

DATE(S) OF TESTING:

November 27, 2014 - January 19, 2015

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA

101/I.S.2/A440-11 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights

**TEST RESULTS:** 

See Page 3 for the test results.

**CONTENTS:** 

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TESTING PERFORMED AT: QAI Laboratories Ltd., Coquitlam

Reported By

Reviewed By

**Anthony Hicks Project Engineer** 

**Matt Lansdowne Director of Engineering** 



Client: Westeck Windows Mfg. Ltd.

Job No.:

Revision Date: June 20, 2017

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# **Product Ratings:**

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights Result:
Force To Latch Test (6.4.5.1)	Pass – 12.5 lbf
Force-to-engage Test (For Deadbolt) (Clause 6.4.5.2)	Pass
Air Leakage Resistance (ASTM E283)	Pressure differential = 75 Pa A3 Level Infiltration result = 0.142 L/s/m² (0.028 cfm/ft²) - A3 Level Exfiltration result = 0.165 L/s/m² (0.033 cfm/ft²) - A3 Level
Water Penetration Resistance Test (ASTM E547)	Maximum pressure differential = 290 Pa (PG 40 - 6.00 psf)
Uniform Load Deflection Test at Design Pressure (ASTM E330 – Procedure A)	Maximum pressure differential = 2160 Pa (PG 45 - 45 psf)
Uniform Load Structural Test (ASTM E330 – Procedure A)	Maximum pressure differential = 3240 Pa (PG 45 - 67.5 psf)
Forced Entry Resistance Test (AAMA 1304)	Pass
Vertical Loading Resistance (Clause 6.4.8)	Pass Maximum load applied: 675 N (150 lbf) Maximum vertical deflection: 3.2 mm (0.127") Diagonal deformation: 2 mm (0.08")

Performance Classification:

Performance Grade:

PG 40 a 950 mm

Maximum Size Tested:

GEFORMAT 2071 mm tall (37" x 82")

**Primary Designator:** 

Class R – PG40: Size tested 950 x 2071 mm (37 x 82 in) – Side Hinged Door (Type SHD) Class R – PG1920 (metric): Size tested 950 x 2071 mm – Side Hinged Door (Type SHD)

Effective Date: January 15, 2009 Revision Date: November 6, 2014 TF0000 - Test Report Template

Revision 3



3980 North Fraser Way Burnaby, BC V5J 5K5 (604) 527-8378 ph. | (604) 527-8368 fx. www.qai.org

### TEST REPORT # T796-24

DATE:

July 6, 2017

CLIENT:

**Westeck Windows & Doors** 

8104 Evans Road.

Chilliwack, British Columbia

Canada, V2R 5R8

Contact: Terry Adamson

SAMPLE ID:

8'0" Fiberglass Inswing Single Door w/ Multipoint Lock

SAMPLE DESCRIPTION:

Width: 1102 mm; Height: 2477 mm. See pages 4-6 for full description.

SAMPLING PROCEDURES: See page 2 for the sampling procedure.

DATE OF RECEIPT:

May 23, 2017.

DATE(S) OF TESTING:

May 26, 2017 - June 2, 2017.

**TESTING REQUESTED:** 

Testing to the mandatory requirements of AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights.

**TEST RESULTS:** 

See page 3 for the test results.

CONTENTS:

Test report pages 1 through 8, appendix A1 through A31.

TESTING PERFORMED AT: QAI Laboratories Ltd., Burnaby.

Reported by

Reviewed by

**Alex Pankov Project Manager**  Lawrence Gibson **Executive VP** 

Signed for and on behalf of QAI Laboratories, Ltd.

Revision 3



Client: Westeck Windows & Doors

Job No.: T796-24 Date: July 6, 2017 Page 3 of 8

# **Product Ratings:**

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS - North American Fenestration Standard / Specification for windows, doors and skylights Result:
Force To Latch Test (6.4.5.1)	Pass – 13.2 lbf
Air Leakage Resistance (ASTM E283)	Pressure differential = 75 Pa A3 Level <sup>a</sup> Infiltration result = 0.165 L/s/m <sup>2</sup> (0.032 cfm/ft <sup>2</sup> ) – A3 Level <sup>a</sup> Exfiltration result = 0.151 L/s/m <sup>2</sup> (0.030 cfm/ft <sup>2</sup> ) – A3 Level <sup>a</sup>
Water Penetration Resistance Test (ASTM E547)	Maximum pressure differential = 290 Pa (DP 40 – 6.00 psf) a
Uniform Load Deflection Test at Design Pressure (ASTM E330 – Procedure A)	Maximum pressure differential = 1920 Pa (DP 40 – 40.0 psf) CW Class deflection limit: 13.8 mm (0.543") Maximum deflection: 4.9 mm (0.193")
Uniform Load Structural Test (ASTM E330 – Procedure A)	Design pressure = 1920 Pa (DP 40)  Maximum pressure differential = 2880 Pa (60.0 psf)
Forced Entry Resistance Test (AAMA 1304)	Pass

**Performance Classification:** 

on:

Performance Grade:

CW b PG 40 b

**Maximum Size Tested:** 

1102 mm wide x 2477 mm tall (43.4" x 97.5")

**Primary Designator:** 

Class CW – PG40: Size tested 1102 x 2477 mm (43.4 x 97.5 in) – Side Hinged Door (Type SHD)

Class CW - PG1920 (SI): Size tested 1102 x 2477 mm - Side Hinged Door (Type SHD)

**Secondary Designator:** 

Positive Design Pressure (DP) = 1920 Pa (40 psf)
Negative Design Pressure (DP) = -1920 Pa (-40 psf)
Water Penetration Resistance Test Pressure = 290 Pa (6.00 psf)
Canadian Air Infiltration / Exfiltration = A3 Level

**Note:** AAMA/WDMA/CSA 101/I.S.2/A440-11, Clause 9.2.5: The air, water and structural tests were performed on test specimens installed per the method outlined in the test conditions section of this report. The test procedures are designed to test the performance of the test specimen only and are not used to test the performance of the installation, in particular the perimeter sealant joint and the anchoring of the assembly. However, products not installed according to the installation method described in this report may not perform to an equivalent performance level.

<sup>&</sup>lt;sup>a</sup> The handle and deadbolt were bagged off and were not part of this test.

<sup>&</sup>lt;sup>b</sup> The following tests were not completed: - Force-to-Engage Test (For Deadbolt) (Clause 6.4.5.2)

<sup>-</sup> Operation/Cycling-Slam Performance (Clause 6.4.7)

<sup>-</sup> Vertical Loading Resistance (Clause 6.4.8)