

S250 Window Test Results

Revised Date: February 12, 2007

WinTech maintains an inhouse state-of-the-art testing facility.

Structural Tests

	Product Designation	Test Size	Design Pressure	Structural Test Pressure	Air Infiltration	Water Resistance Test Pressure	
Horizontal Slider (XO)	HS-C40	71" x 60"	40 psf	+/- 60 psf	.13 cfm/sf	6.00 psf	
Single Hung, Single Tilt	Standard Configuration	SH-C30	56" x 91"	30 psf	+/- 45 psf	.17 cfm/sf	6.89 psf
	Smaller Test Size	SH-C45	48" x 72"	45psf	+/- 68 psf		6.89 psf
Projected							
FX/PO/FX/PI	Standard Configuration	AP-C50	48" X 128"	50 psf	+/- 75 psf	< .01 cfm/sf	12 psf
FX/PO/FX/PI	2 Cams & 1 Snubber per Vent	AP-C60	48" X 128"	60 psf	+/- 90 psf		
Single PO	2 Cams & 1 Snubber per Vent	AP-C50	60" x 48"	50 psf	+/- 75 psf		
Single PI	2 Cams & 1 Snubber per Vent	AP-C50	60" x 48"	50 psf	+/- 75 psf		
Fixed		F-HC60	60" X 71"	60 psf	+/- 90 psf	< .01 cfm/sf	12 psf
Outswing Casement							
CO/FX/CO	Standard Configuration	C-C45	96" X 60"	45 psf	+/- 68 psf	< .01 cfm/sf	12 psf
CO/FX/CO	2 Cams & 1 Snubber per Vent	C-C60	96" X 60"	60 psf	+/- 90 psf		

Thermal Tests

	Test Size	IG Glazing	U	AAMA 1503-98 CRFf	CRFg	NFRC 102-2004 U
Horizontal Slider (XO)	72" x 48"	DS Clear	0.63	50	56	0.59
Single Hung, Single Tilt	48" x 72"	DS Clear	0.63	46	55	0.59
Projected (FX/PO)	48" x 72"	1/4 Clear	0.60	56	55	0.57
Fixed	48" x 72"	1/4 Clear	0.56	61	56	0.53
Outswing Casement (CO)	30" x 60"	1/4 Clear	0.60	55	56	0.57

AAMA thermal test cover sheetss are attached. Copies of the NFRC reports are available by contacting WinTech



PERFORMANCE TEST RESULT SUMMARY

Rendered to:

Wintech

**PRODUCT TYPE: Single Hung
SERIES/MODEL: S250**

Title	Summary of Results	
	Test Specimen #1	Test Specimen #2
Primary Product Designator	SH-C30 1422 mm x 2311 mm (56" x 91")	SH-C45* 1219 mm x 1829 mm (48" x 72")
Design Pressure*	1440 Pa (30.08 psf)	2160 Pa (45.11 psf)
Negative Design Pressure*	1440 Pa (30.08 psf)	2160 Pa (45.11 psf)
Operating Force (in motion)	157.5 N (35.4 lbf)	-
Air Infiltration	0.90 L/s/m ² (0.17 cfm/ft ²)	-
Water Penetration Resistance Test Pressure*	330 Pa (6.89 psf)	-
Uniform Load Structural Test Pressure	±2160 Pa (45.11 psf)	±3240 Pa (67.67 psf)
Forced Entry Resistance	Grade 10	-

*-Optional Secondary Designators

Reference should be made to ATI Report No. 62059.01-801-47 for complete test specimen description, test data, and validated test results.

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For ARCHITECTURAL TESTING, INC:

Bob King
Regional Project Manager

Test Date: 1/23/06
Summary Date: 4/21/06



**AAMA/WDMA/CSA 101/I.S.2/A440-05
TEST REPORT**

Rendered to:

Wintech

**PRODUCT TYPE: Project Out/Awning
SERIES/MODEL: S250**

Title	Summary of Results
Primary Product Designator	AP-C50 1524 x 1219 (60 x 48)
Design Pressure	2400 Pa (50.23 psf)
Negative Design Pressure	2400 Pa (50.23 psf)
Operating Force (in motion)	13.3 N (3 lbf)
Air Infiltration	<0.5 L/s/m ² (<0.1 cfm/ft ²)
Water Penetration Resistance Test Pressure	580 Pa (12.11 psf)
Uniform Load Structural Test Pressure	±3600 Pa (75.19 psf)
Forced Entry Resistance	Grade 10

Test Completion Date: 02/08/07

Reference must be made to Report No. 71268.01-801-47, dated 04/03/07 for complete test specimen description and data.



**AAMA/WDMA/CSA 101/I.S.2/A440-05
TEST REPORT**

Rendered to:

Wintech

**PRODUCT TYPE: Project In Hopper
SERIES/MODEL: S250**

Title	Summary of Results
Primary Product Designator	AP-C50 1524 x 1219 (60 x 48)
Design Pressure	2400 Pa (50.23 psf)
Negative Design Pressure	2400 Pa (50.23 psf)
Operating Force (in motion)	33.4 N (7.5 lbf)
Air Infiltration	<0.5 L/s/m ² (<0.1 cfm/ft ²)
Water Penetration Resistance Test Pressure	580 Pa (12.11 psf)
Uniform Load Structural Test Pressure	± 3600 Pa (75.19 psf)
Forced Entry Resistance	Grade 10

Test Completion Date: 02/08/07

Reference must be made to Report No. 71267.01-801-01, dated 04/03/07 for complete test specimen description and data.



PERFORMANCE TEST RESULT SUMMARY

Rendered to:

Wintech

PRODUCT TYPE: Fixed/Project Out/Fixed/Project In
SERIES/MODEL: S250

Title	Summary of Results
Primary Product Designator	AP-C50 1219 mm x 3251 mm (48" x 128")
Design Pressure	2400 Pa (50.13 psf)
Negative Design Pressure	2400 Pa (50.13 psf)
Operating Force (in motion) Hopper	30.3 N (6.8 lbf)
Operating Force (in motion) Projected	59.6 N (13.4 lbf)
Air Infiltration @ 75 pa (1.57 psf)	<0.05 L/s/m ² (<0.01 cfm/ft ²)
Air Infiltration @ 300 pa (6.27 psf)	<0.05 L/s/m ² (<0.01 cfm/ft ²)
Water Penetration Resistance Test Pressure	580 Pa (12.11 psf)
Uniform Load Structural Test Pressure	±3600 Pa (75.19 psf)
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 63082.01-801-47 for complete test specimen description, test data, and validated test results.

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For ARCHITECTURAL TESTING, INC:

Bob King
Regional Project Manager

Test Date: 2/15/06
Summary Date: 4/21/06
Revision Date: 4/28/06

7244 East F.R. 132
Springfield, MO 65802
phone: 417.832.8444
fax : 417.832.8448
www.archtest.com



PERFORMANCE TEST RESULT SUMMARY

Rendered to:

Wintech

PRODUCT TYPE: Aluminum Fixed Window
SERIES/MODEL: 250 Fixed

Title	Summary of Results
Primary Product Designator	F-HC60 1524 mm x 1803 mm (60" x 71")
Design Pressure	2880 Pa (60.15 psf)
Negative Design Pressure	2880 Pa (60.15 psf)
Air Infiltration	0.05 L/s/m ² (0.01 cfm/ft ²)
Water Penetration Resistance Test Pressure	580 Pa (12.11 psf)
Uniform Load Structural Test Pressure	±4320 Pa (90.23 psf)
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 62057.01-801-47 for complete test specimen description, test data, and validated test results.

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For ARCHITECTURAL TESTING, INC:

Bob King
Regional Project Manager

Test Date: 2/20/06
Summary Date: 4/21/06
Revision Date: 4/28/06



PERFORMANCE TEST RESULT SUMMARY

Rendered to:

Wintech

**PRODUCT TYPE: Casement Outswing/Fixed/Casement Outswing
SERIES/MODEL: S250**

Title	Summary of Results
Primary Product Designator	HS-C45 2438 mm x 1524 mm (96" x 60")
Design Pressure	2160 Pa (45.11 psf)
Negative Design Pressure	2160 Pa (45.11 psf)
Operating Force (in motion)	37.4 N (8.4 lbf)
Air Infiltration @ 75 pa (1.57 psf)	<0.05 L/s/m ² (<0.01 cfm/ft ²)
Air Infiltration @ 300 pa (6.27 psf)	<0.05 L/s/m ² (<0.01 cfm/ft ²)
Water Penetration Resistance Test Pressure	580 Pa (12.11 psf)
Uniform Load Structural Test Pressure	±3240 Pa (67.67 psf)
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 63083.01-801-47 for complete test specimen description, test data, and validated test results.

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For ARCHITECTURAL TESTING, INC:

Bob King
Regional Project Manager

Test Date: 2/15/06
Summary Date: 4/21/06
Revision Date: 4/28/06



PERFORMANCE TEST RESULT SUMMARY

Rendered to:

Wintech

PRODUCT TYPE: Horizontal Sliding Window
SERIES/MODEL: S250

Title	Summary of Results
Primary Product Designator	HS-C40 1803 mm x 1524 mm (71" x 60")
Design Pressure	1920 Pa (40.10 psf)
Negative Design Pressure	1920 Pa (40.10 psf)
Operating Force (in motion)	75.2 N (16.9 lbf)
Air Infiltration	0.66 L/s/m ² (0.13 cfm/ft ²)
Water Penetration Resistance Test Pressure	290 Pa (6.06 psf)
Uniform Load Structural Test Pressure	±2880 Pa (60.15 psf)
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 62058.01-801-47 for complete test specimen description, test data, and validated test results.

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For ARCHITECTURAL TESTING, INC:

Bob King
Regional Project Manager

Test Date: 2/15/06
Summary Date: 4/21/06