

Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

1677 West 31st Place Hialeah, FL 33012 Phone: 305/819-7877 Fax 305/819-7998
e-mail: ftdade@aol.com www.ftl-inc.com

Lab. Number 3081
April 30, 2001
Report Number 5
File Number 01-102
Page 1 of 4
A-4258

OFFICIAL TEST REPORT

MANUFACTURER: Kinco Limited
ADDRESS: P.O. Box 6398
Jacksonville, Florida 32236

DESIGNATION: H-LC30 - 52 X 77
SPECIFICATIONS: ANSI/AAMA/NWWDA
101/I.S.2.-97

DESCRIPTION OF UNIT

Model Designation: Series: M-40/50 STD; Aluminum Single Hung Window
Overall Size: 4' 4" (52") by 6' 5" (77") high by 2.000" deep
Configuration: O/X
No. & Size of Vents: One extruded aluminum vent, 4' 2" (50") by 3' 3 3/8" (39 3/8") high

MATERIAL CHARACTERISTICS

Frame Construction: Test unit has a nail fin frame, 54" by 79 1/4" high overall, with butt joints and a white coated finish. Aluminum alloy is 6063-T5. Frame corners were fastened with two No. 8 by 5/8" pan head sheet metal screws. Fixed meeting rail was fastened at each end with one No. 8 by 5/8" pan head sheet metal screw. Frame sill has a 1.438" overall interior sill flange. Size of frame members are as follows: frame head 0.250" by 2.050" by 0.750"; frame sill 0.188" by 2.062" by 1.438" by 2.162"; frame jambs 1.188" by 2.000" by 1.500"; fixed meeting rail 1.725" by 1.064" by 1.237". Frame members are solid extrusions, with typical wall thicknesses of 0.062".

Vent Construction: Vent has butt joints and a white coated finish. Aluminum alloy is 6063-T5, except where indicated. Vent corners were fastened with one No. 8 by 5/8" pan head sheet metal screw. Size of vent rails are as follows: top rail 0.812" by 1.062" by 0.984" by 1.550"; bottom rail (alloy-T6) 0.812" by 1.062" by 1.624" by 1.562"; vent jamb rails 0.937" by 0.812" by 0.322". Vent rails are solid extrusions, with typical wall thicknesses of 0.062".

Glazing:

Material: 3/16" annealed glass

Method: Unit is exterior glazed with 0.335" glazing penetration using a clear colored silicone and an aluminum rolled glazing bead.

Daylight Opening: Clear opening of vent and fixed lite, 48" by 36 3/8" high.

Weatherstripping:

Quantity Description Location

<i>Quantity</i>	<i>Description</i>	<i>Location</i>
Single row	pile with integral plastic fin	at vent jamb rails on the exterior and vent top rail
Single row	vinyl flap	at vent bottom rail

Hardware:

Quantity Description Location

<i>Quantity</i>	<i>Description</i>	<i>Location</i>
Two	adjustable spring loaded aluminum hook lock, with no I.D. marks	at vent bottom rail, 15" and 38" from left
Two	spring and pulley balance, with I.D. No. 379 BSI MK	one at each frame jamb
Two	plastic balance guides, with no I.D. marks	one at each end of vent top rail



Lab. Number 3081
 April 30, 2001
 Report Number 5
 File Number 01-102
 Page 2 of 4
 A-4258

MATERIAL CHARACTERISTICS

Hardware: (continued)

Quantity	Description	Location
Four	plastic face guide, with no I.D. marks	at each jamb rail of vent, 3 1/2" and 36" from bottom
Two	balance take out steel clip, with no I.D. marks	one at each frame jamb, 73 1/4" from bottom

Weepholes:

Quantity	Description	Location
Two	1/2" weep notch	one at each end of screen retainer leg in frame sill
Four	1 1/2" weep notch	at screen retainer leg in frame sill, 3 1/2", 21", 28" and 45" from left

Muntins: None

Mullions: None

Reinforcement: None

Sealants: Frame corners seams were sealed with a clear colored sealant.

Pads: One 2" long adhesive back closed cell foam gasket at each lower frame corner, total of two.

Screen: Water resistance tests were conducted with and without fiberglass mesh screen installed. Size of screen, 49" by 38" high.

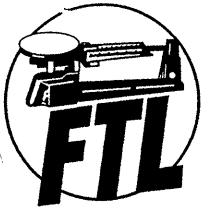
Unit Installation: Test unit installed in a 2 x 12 wood test buck with a 2" x 4" pressure treated buck strip. Frame installed with a single row of No. 8 by 1 1/4" pan head sheet metal screws through nail fin frame at frame head and frame jambs. Location of installation screws are as follows: frame head from the left, 5 1/4" and 49 1/4"; frame jambs from the bottom, 3 1/2", 14 1/2", 36 1/4", 42 1/2", 64 3/4" and 75 1/2". There were no installation fasteners used in frame sill.

Product Markings: None

OFFICIAL TEST RESULTS

Paragraph Number	Title of Test	Measured	Allowed
2.1.2	Air Infiltration Test: (ASTM E283-96) at 1.57 psf	0.23 cfm/sq.ft. (1.28 cmh)	Passed 0.3 (1.67) maximum
<i>Note:</i> The tested specimen meets or exceeds the performance levels specified in specification reference for air infiltration.			
2.1.3	Water Resistance Test: (ASTM E547-96/E331-96) with and without screen, no leakage	4.50 psf (215 pa)	Passed 3.75 (180) minimum
2.1.4.2	Uniform Structural Load Test: (ASTM E330-96) Positive Load	52.5 psf (2514 pa)	Passed 37.5 (1796) minimum
		Deflection	Permanent Set
	Reading at frame jamb	0.060" (1.53 mm)	0.011" (0.28 mm)
	Reading at frame sill	0.140" (3.56 mm)	0.012" (0.25 mm)
	Reading at meeting rails	1.030" (26.19 mm)	0.026" (0.66 mm) 0.200 (5.09) maximum
	Uniform Structural Load Test: (ASTM E330-96) Negative Load	52.5 psf (2514 pa)	Passed 37.5 (1796) minimum
	Reading at frame jamb	0.191" (4.86 mm)	0.013" (0.33 mm)
	Reading at frame sill	0.340" (8.65 mm)	0.016" (0.41 mm)
	Reading at meeting rails	1.205" (20.64 mm)	0.031" (0.79 mm) 0.200 (5.09) maximum

[Handwritten Signature]
 5/7/01



Lab. Number 3081
 April 30, 2001
 Report Number 5
 File Number 01-102
 Page 3 of 4
 A-4258

OFFICIAL TEST RESULTS

Paragraph Number	Title of Test	Measured	Allowed
2.1.8	Forced Entry Resistance Test AAMA 1303.2-1976, Paragraph 3.1.1 Test A through 3.1.5 Test G	No entry	Passed None Allowed
2.2.1.6.1	Starting Force: Operating Force:	10 pounds (44 n) 14 pounds (62 n)	35 (155) maximum 35 (155) maximum
2.2.1.6.2	Deglazing Test: (ASTM E987-88) No disengagement at: Horizontal Rails Vertical Rails Percent Deglazement	70 pounds (311n) 50 pounds (222n) 3 percent	Passed 70 (311) minimum 50 (222) minimum 99 maximum

SECTION 4, OPTIONAL PERFORMANCE CLASS:

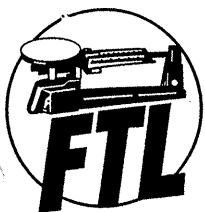
4.3	Water Resistance Test: (ASTM E547-96/E331-96) with and without screen, no leakage	4.50 psf (215 pa)	Passed 4.50 (215) minimum
4.4.2	Uniform Structural Load Test: (ASTM E330-96) Positive Load	52.5 psf (2514 pa)	Passed 45.0 (2155) minimum
		Deflection	Permanent Set
	Reading at frame jamb	0.060" (1.53 mm)	0.011" (0.28 mm)
	Reading at frame sill	0.140" (3.56 mm)	0.012" (0.25 mm)
	Reading at meeting rails	1.030" (26.19 mm)	0.026" (0.66 mm) 0.200 (5.09) maximum
	Uniform Structural Load Test: (ASTM E330-96) Negative Load	52.5 psf (2514 pa)	Passed 45.0 (2155) minimum
	Reading at frame jamb	0.191" (4.86 mm)	0.013" (0.33 mm)
	Reading at frame sill	0.340" (8.65 mm)	0.016" (0.41 mm)
	Reading at meeting rails	1.205" (20.64 mm)	0.031" (0.79 mm) 0.200 (5.09) maximum

Note: At conclusion of above tests, there was no apparent damage to unit, glass or fasteners.

Temperature: 73.0 F
 Barometric: 30.12

Test Began - April 25, 2001
 Test Completed - April 27, 2001
 Report Expires - April 25, 2005

Remarks: This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and the performance requirements (paragraphs as listed) of the above referenced specifications. As per manufacturer, unit complies with section 3, material and component requirements.



Lab. Number 3081
April 30, 2001
Report Number 5
File Number 01-102
Page 4 of 4
A-4258

continued:

Detailed assembly drawings showing wall thickness of all members, corner construction and hardware application are on file and have been compared to the sample submitted. A test sample will be retained at the test laboratory. A copy of this report and detailed drawings will be forwarded to the Validator.

Note: When load tests are performed on test specimens, they are covered with a 1.5 ml plastic sheeting to seal from air leakage, however, this has no effect on the test results obtained.

Witnessed by:
Mr. Luis Figueredo, P. E.
Mr. Jay Wyrick
Mr. Jim Puckett
Mr. Mike Trent

FENESTRATION TESTING LABORATORY, INC.

Roque Zavala
Testing Manager

Author of Report:
Maricruz Ayala

Laboratory Technicians:
Ralph Rodriguez
Osdany Hernandez

✓ - Kinco Limited
2 - ALI

[Handwritten Signature]
5/7/01