



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877

e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/25/2015
 Completion Date: 9/3/2015
 Expiration Date: 9/3/2019
 Page No. Page 1 of 18
 Lab. Number: 8483
 Project Number: 15-5706

OFFICIAL TEST REPORT

MANUFACTURER: Aluminco S.A.

SPECIFICATIONS: Florida Building Code
 Concentrated Load Test
 ANSI Z97.1

ADDRESS: Inofita, Viotia Greece, 32011

PROJECT: Aluminco S.A.

Table of Contents

	Page	Rev		Page	Rev
Sample A-1			Sample C-1 continued		
Description of Test Sample	2		Concentrated Load Test	FBC section 1607.8.1.1	10
Material Characteristics	2		Concentrated Load Test	FBC section 1607.8.1.2	11
Glazing	2		Drop Test	ANSI Z97.1	11
Additional Information	3		Sample D-1		
Test Sample Installation	3		Description of Test Sample		12
Results Sample A-1			Material Characteristics		12
Concentrated Load Test	FBC section 1607.8.1	3	Glazing		12
Concentrated Load Test	FBC section 1607.8.1.1	4	Additional Information		12
Concentrated Load Test	FBC section 1607.8.1.2	4	Test Sample Installation		12
Drop Test	ANSI Z97.1	5	Results Sample D-1		
Sample B-1			Concentrated Load Test	FBC section 1607.8.1	13
Description of Test Sample	6		Concentrated Load Test	FBC section 1607.8.1.1	13
Material Characteristics	6		Concentrated Load Test	FBC section 1607.8.1.2	14
Glazing	6		Drop Test	ANSI Z97.1	14
Additional Information	6		Sample H-1		
Test Sample Installation	7		Description of Test Sample		15
Results Sample B-1			Material Characteristics		15
Concentrated Load Test	FBC section 1607.8.1	7	Additional Information		15
Concentrated Load Test	FBC section 1607.8.1.1	7	Test Sample Installation		15
Concentrated Load Test	FBC section 1607.8.1.2	8	Results Sample H-1		
Drop Test	ANSI Z97.1	8	Concentrated Load Test	FBC section 1607.8.1	16
Sample C-1			Concentrated Load Test	FBC section 1607.8.1.1	16
Description of Test Sample	9		Concentrated Load Test	FBC section 1607.8.1.2	17
Material Characteristics	9		Revision Table		17
Glazing	9		Notes Table		17
Additional Information	9		Remarks Table		18
Test Sample Installation	9				
Results Sample C-1					
Concentrated Load Test	FBC section 1607.8.1	10			



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877
e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/25/2015
Completion Date: 9/3/2015
Expiration Date: 9/3/2019
Page No. Page 12 of 18
Lab. Number: 8483
Project Number: 15-5706

OFFICIAL TEST REPORT

DESCRIPTION OF SAMPLE	
Model Designation:	Series: F50 Horizon Frame Glass Railing
Overall Size:	10'-6 1/4" (126 1/4") by 3'-6 5/8" (42 5/8") high
Size and Location of Post:	Four 41 7/16" high vertical post located 4 1/8", 43 5/8", 83" and 122 5/8" from left
Sample D-1	

MATERIAL CHARACTERISTICS			
Members	Material**	Part Number**	Joint Type
Hand Rail	6060-T6	F50-223	N/A
Top Rail	6060-T6	F50-203	N/A
Bottom Rail	6060-T6	F50-310	N/A
Vertical Post	6060-T6	F50-109	N/A

Glazing			
Glazing Location	Glazing Material	Glazing Compound	Compound Color
All three lites of glass	*13/32" nominal laminated glass composed of (2) 5/32" heat strengthened glass	none	n/a
Interlaying Film: *0.090" **DuPont SentryGlas		Laminator: **Tecnoglass	
Glazing Method: Pocket glazed with a *3/4" glazing penetration at the top using a vinyl gasket on the exterior and interior; and pocket glazed with a *1" glazing penetration at the bottom using a U shaped vinyl gasket.			
Daylight Opening:	37 3/4" by 36 1/8" high		

Additional Information
The hand rail snaps on to the top rail and was fastened to the top rail at each end using one extruded aluminum cover (part No. 44511-1). The cover was fastened to the hand rail using one No. 8 by 3/4" FH SDS and the cover was fastened to the top rail using one No. 8 by 3/4" FH SDS.
The top rails were fastened to the top of each vertical post using two No. 8 by 1 1/2" FH SDS.
The bottom rail is fastened to each vertical post using one 2.030" by 0.603" high by 0.122" thick aluminum plate and two No. 10 by 1 1/4" FH SMS.

Sample Installation
Vertical posts were set into a 6" diameter hole using **Quikrete Concrete Mix (minimum **2,500 psi after seven days cure time per specification) with a 3 1/2" embedment into a 3,000 psi concrete test slab.



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877
 e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/25/2015
 Completion Date: 9/3/2015
 Expiration Date: 9/3/2019
 Page No. Page 13 of 18
 Lab. Number: 8483
 Project Number: 15-5706

OFFICIAL TEST REPORT

Sample: D-1		Temperature: 85°F		Barometric Reading: 30.12 inches Hg	
Title of Test		Load		Notes	
Concentrated Load Test		525.0 lbs		As per FBC section 1607.8.1. A horizontal load was applied at the center of the hand rail.	
Reading#	Deflection	Permanent Set	Results	Add. Info	
1	3.625"	0.310"	Passed		

Sample: D-1		Temperature: 85°F		Barometric Reading: 30.12 inches Hg	
Title of Test		Load		Notes	
Concentrated Load Test		200.0 lbs		As per FBC section 1607.8.1.1. A horizontal load was applied at the corner of the hand rail.	
Reading#	Deflection	Permanent Set	Results	Add. Info	
2	2.475"	0.205"	Passed		



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877
 e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/25/2015
 Completion Date: 9/3/2015
 Expiration Date: 9/3/2019
 Page No. Page 14 of 18
 Lab. Number: 8483
 Project Number: 15-5706

OFFICIAL TEST REPORT

Sample: D-1		Temperature: 85°F		Barometric Reading: 30.12 inches Hg	
Title of Test			Load		Notes
Concentrated Load Test			50.0 lbs		As per FBC section 1607.8.1.2. A load was applied at the center of the left lite perpendicular to the glass.
Reading#	Deflection	Permanent Set		Results	Add. Info
3	n/a	n/a		Passed	

Sample: D-1		Temperature: 83.4°F		Barometric Reading: 30.08 inches Hg	
Title of Test			Notes		
Drop Test			As per FBC section 1618.4.6.3		
Drop #	Results	Add. Info			
1	Passed	Impacted center of lite. After impact the glass did break but remained in the place and there wasn't any apparent tear in the inter layer film			
2	Passed	Impacted center of lite. After impact the glass did break but remained in the place and there wasn't any apparent tear in the inter layer film			
3	Passed	Impacted center of lite. After impact the glass did break but remained in the place and there wasn't any apparent tear in the inter layer film			



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: (305) 885-3328 Fax: (305) 885-3329 (888) 819-7877
e-mail: clientservices@ftl-inc.com www.ftl-inc.com

Report Date: 9/25/2015
Completion Date: 9/3/2015
Expiration Date: 9/3/2019
Page No. Page 18 of 18
Lab. Number: 8483
Project Number: 15-5706

OFFICIAL TEST REPORT

Remarks

Detailed drawings and test report will be retained by Fenestration Testing Laboratory for a period of four years from the original test date. Due to the code cycle change of four years, it is recommended that this report be evaluated during the lifespan of this document.

This product was tested and meets the requirement set forth by the Florida Building Code (2014) concentrated load test sections 1607.8.1, 1607.8.1.1 and 1607.8.1.2.

This product was tested in accordance with ANSI Z-97.1-09 (FBC section 1618.4.6.3) with no deviations.

Testing was conducted as per instructions received from the manufacturers company representative.

Witnessed by:
Ms. Idalmis Ortega, P.E.

Technicians:
Mr. Harold Anacona

FENESTRATION TESTING LABORATORY, INC.

Mr. Manny Sanchez
Chief Executive Officer