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AIR AND WATER TEST REPORT

Rendered to:

FABRAL/ALCAN BUILDING PRODUCTS
P.O. Box 4608
Lancaster, Pennsylvania 17604

Report No: ATI-13611
Test Date: 04/07/94
Report Date: 04/15/94

Series/Model: Stand'n Seam

Type: Aluminum Panel System

Project Summary: Architectural Testing, Inc. (ATI) was contracted by Fabral/Alcan Building Products to conduct air infiltration and water penetration tests on the aluminum panel system referenced above. Comprehensive test results are contained herein.

Test Methods:

ASTM E283, "Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors."

ASTM E331, "Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference."

Test Specimen Description:

Overall Size: 6' 8" wide by 7' 6" high

Finish: The interior of the aluminum panels were painted beige and the exterior was painted blue.

Panel System: Two separate panel systems were assembled with five 0.032" thick stucco embossed aluminum panels. The center three panels measured 16" wide; both end panels measured 8" wide. The panels were fastened to a wooden test buck utilizing a seam clip at the vertical midspan of each panel and hex head screws at each end and sides of the end panels. The entire perimeter of the panel system was sealed utilizing butyl tape and silicone/sealant. Each panel seam end was also sealed with silicone sealant. Refer to attached drawing for panel cross sectional detail.

Panel System #1: Employed a butyl tape seal at each panel seam.

Panel System #2: Had no sealant at the panel seams.

TEST RESULTS

Panel System #1 (with sealant)

<u>Title of Test</u>	<u>Results</u>	
Air Infiltration ¹	Measured	Rate
@ 1.57 psf (25 mph)	0.2 cfm	0.01 cfm/ft
@ 6.40 psf (50 mph)	0.3 cfm	0.01 cfm/ft
@ 10.0 psf (63.2 mph)	0.3 cfm	0.01 cfm/ft
@ 20.0 psf (89.5 mph)	0.3 cfm	0.01 cfm/ft

¹ Air infiltration rate based on 37.5 feet of lineal crack (panel seam). The perimeter edge of the panel system was not part of the test.

Water Penetration²

@ 1.57 psf (25 mph)	No uncontrolled leakage
@ 6.40 psf (50 mph)	No uncontrolled leakage
@ 10.0 psf (63.2 mph)	No uncontrolled leakage
@ 20.0 psf (89.5 mph)	No uncontrolled leakage

² The perimeter edge of the panel system was not part of this test.

Panel System #2 (without sealant)

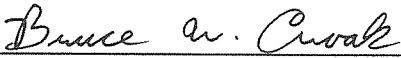
<u>Title of Test</u>	<u>Results</u>	
Air Infiltration ¹	Measured	Rate
@ 1.57 psf (25 mph)	0.05 cfm	<0.01 cfm/ft
@ 6.40 psf (50 mph)	0.2 cfm	0.01 cfm/ft
@ 10.0 psf (63.2 mph)	0.3 cfm	0.01 cfm/ft
@ 20.0 psf (89.5 mph)	0.1 cfm	<0.01 cfm/ft

Water Penetration²


@ 1.57 psf (25 mph)	No uncontrolled leakage
@ 6.40 psf (50 mph)	No uncontrolled leakage
@ 10.0 psf (63.2 mph)	No uncontrolled leakage
@ 20.0 psf (89.5 mph)	No uncontrolled leakage

Representative samples of the test specimen and a copy of this report will be retained by ATI for a period of four years. This report is the exclusive property of the client so named herein and is applicable to the sample tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory.

For ARCHITECTURAL TESTING, INC.:



Bruce W. Croak
Project Manager



David G. Moyer
Director of Testing Services

BWC:bjy
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