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SOCIETY OF PETROLEUM ENGINEERS OF AIME

United States Aluminum Corp.

200 Singleton Dr. Waxahachie, TX 75185

Attn: Mr. Michael Brown

Date: March 30, 1999

Report No. 28493

REPORT

SUBJECT:

Performance testing in accordance with ASTM E 283-91 (Air Infiltration), ASTM E 331-96

(Water Resistance), and ASTM E 330-97 (Uniform Load Structural).

Product Type: Aluminum Curtain Wall with 5° splay on center glaze (5° each side if Interior Vertical).

Series Model: 450

Overall Size: 5'10-1/4" x 8'2-1/16" (1.784m x 2.491m)

Configuration:

0.0

0.0

RECEIVED

DESCRIPTION OF UNIT TESTED

MAR 8 1 1909

UNITED STATES ALUMINUM

Weatherstripping: None.

Glass: Single glazed 1/4" (6.35mm) tempered.

Glazing: Exterior glazed with gasket part #NP-225 at interior and exterior of glass with aluminum snap-in glazing bead part #M-453 at the exterior horizontal mullions. Snap-on glazing adaptor part #RS-200 at the lower face of intermediate horizontal mull and at the lateral face of center jamb part #J-452.

Weep Arrangement: One (1) 3/16" x 1/4" (4.76m x 6.35mm) weep hole beaneath each lower lite.

Scalant: Perimeter caulked with foam backer rod and structural sealant at the interior and exterior face. Sealant at interior cavities of horizontal to vertical mull connections. Snap-on adapter part #RS-200 sealed at the interior and exterior to horizontal mull part #J-452. Glazing gaskets sealed 2" (50.80mm) out from each corner prior to frame installation and again prior to glass installation. Sub sill part #FF-400 sealed to frame sill part #ST-251 at exterior joint full span. Sillicone cap seal at all installation screw heads.

Other Features: Frame attached to wood buck with 3/8"x3" (9.53mmx76.2mm) lag bolts three (3) per lite at sill and head. Horizontal mullions attached to vertical mullions with two (2) #10x1" (10x25.40mm) screws per connection.

Date Testing Started: March 1, 1999

Date Testing Completed: March 1, 1999

Testing Peformed At: United States Aluminum Corp. testing facility in Waxahachie, Texas.

SUMMARY OF TEST RESULTS

TITLE OF TEST	TEST METHOD	MEASURED	ALLOWED
Air Infiltration @ 6.24 psf (30.46 Kg/m²)	ASTM E 283-91	<0.05 CFM/Ft ² (<.02 Liters/sec)	0.06 CFM/Ft ² (.028 Liters/sec)
Water Resistance @ 10.00 psf (48.82 Kg/m²)	ASTM E 331-96	No Leakage	No Leakage
Uniform Load Structural - Exterior @ 75.0 psf (366.15 Kg/m²) - Interior @ 50.0 psf (244.1 Kg/m²) - Permanent Set	ASTM E 330-97	No Damage* No Damage* Negligible	No Damage* No Damage* 0.196" (4.98mm)

^{*} No glass breakage or permanent deformation to the test specimen.

Detailed assembly drawings indicating frame installation and corner construction are on file and have been compared to the test sample submitted. Test samples will be retained at Dallas Laboratories, Inc. for a period of four years.

DALLAS LABORATORIES, INC. TESTING LABORATORY

DIRECTOR, WINDOW & DOOR TESTING

Andy Wilson

AW:td