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CABLE ADDRESS "DALAB"

## DALLAS LABORATORIES, INC.

CONSULTANTS AND TECHNOLOGISTS  
ANALYTICAL AND RESEARCH CHEMISTS —

CHEMICAL ENGINEERS — PETROLEUM ENGINEERS

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P. O. BOX 152837  
1323 WALL ST.

DALLAS, TEXAS 75315

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Submitted By: United States Aluminum Corp.  
200 Singleton Dr.  
Waxahachie, TX 75165

Date: April 15, 1994  
(Reissued: April 21, 1994)

Attn: Mr. Doug Ellerbrock

Report No. 20813-R

### REPORT

**Subject:** Performance testing in accordance with ASTM E 283-91 (Air Infiltration), ASTM E 331-86 (Water Resistance) and ASTM E 330-90 (Uniform Load Deflection and Uniform Load Structural).

### PRODUCT DESCRIPTION

**Product Type:** Store-front

**Series Model:** FF450 Interior Glazed

**Overall Size:** 8'1/2" x 7'11-3/16"

**Configuration:** O.O

**Glass:** 1/4" tempered.

**Glazing:** Interior glazed using NP-225 gasket at interior and exterior perimeter of glass.

**Weep Arrangement:** 1-1/4"x3/16" weep slot, approx. 2-1/2" from each vertical member - two under each lite (total of 4).

**Sealant:** Silicone sealant and foam backer rod used at full exterior perimeter of main frame. Silicone sealant at interior and exterior of sub-sill #FF400 to sill #FF482 full span, at each corner of sub-sill #FF400 to wood test buck and aluminum angle end cap to sub-sill #FF400. Silicone sealant applied to head of sill anchor bolts and vertical joints of mullion at head and sill of main frame.

**Other Features:** Frame corner construction by two (2) #10x1" screws. Snap-in glazing strip #M-473 at frame top rail. 1/4" dia. lag bolts employed to attach frame to wood test buck - two per jamb and four at head and sill (total 12).

**Date Testing Started:** March 10, 1994

**Date Testing Completed:** March 10, 1994

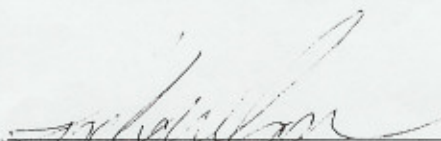
PERFORMANCE TEST RESULTS


<u>TITLE OF TEST</u>	<u>TEST METHOD</u>	<u>MEASURED</u>	<u>ALLOWED</u>
Air Infiltration @ 1.57 psf	ASTM E 283-91	0.002 CFM/Ft <sup>2</sup>	0.06 CFM/Ft <sup>2</sup>
Air Infiltration @ 6.24 psf	ASTM E 283-91	0.01 CFM/Ft <sup>2</sup>	0.06 CFM/Ft <sup>2</sup>
Water Resistance @ 6.24 psf	ASTM E 331-86	No Leakage	No Leakage
Water Resistance @ 8.00 psf	ASTM E 331-86	No Leakage	No Leakage
Water Resistance @ 10.00 psf	ASTM E 331-86	No Leakage	No Leakage
Uniform Load Deflection	ASTM E 330-90		
- Exterior 25.0 psf		0.519"	0.543"
- Interior 25.0 psf		0.491"	0.543"
Uniform Load Structural	ASTM E 330-90		
- Exterior		37.5 PSF *	37.5 PSF *
- Interior		37.5 PSF *	37.5 PSF *
- Permanent		Negligible	0.386"

\* No glass breakage, permanent deformation, or any other condition exists that caused any damage to the unit.

The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specifications.

DALLAS LABORATORIES, INC.  
TESTING LABORATORY

  
TECHNICIAN

  
DIRECTOR, WINDOW AND DOOR TESTING

AW:td