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AMERICAN SOCIETY FOR QUALITY CONTROLSubmitted By: U.S. Aluminum Corp. - Texas
200 Singleton Drive
Waxahachie, TX 75165Date: July 30, 1996
(Reissued: May 21, 1998)

Attn: Jeff Lockenour

Report No. 24340-R

REPORT

SUBJECT: Performance testing in accordance with ASTM E 283-91 (Air Infiltration), ASTM E 331-93 (Water Resistance), ASTM E 330-90 (Uniform Load Deflection) and ASTM E 330-90 (Uniform Load Structural).

DESCRIPTION OF UNIT TESTED

Type: Aluminum Storefront

Series: 451 FG Mock-Up with HC-260 head channel and FF-400 sill flashing.

Overall Size: 8'5/8" x 7'11-9/16" (2.454 m x 2.427 m)

Configuration:

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Glass: Sealed insulating glass: 2 pcs 1/4" (6.35 mm) tempered, 1/2" (12.70 mm) air spacer, 1" (25.4 mm) overall thickness.

Glazing: One row of NP255 gasket at interior face of each fixed lite (full perimeter) with aluminum snap-in glazing bead at sill and intermediate horizontal member.

Weep Arrangement: Four 1-1/4" x 1/8" (31.75 mm x 3.175 mm) weep slots at exterior face of FF-400 sill flashing (two under each fixed lite).

Sealant: Interior and exterior joints between IS 453 sill and FF-400 sill flashing are sealed full length of members. End dams are sealed at FF-400 sill flashing, interior and exterior face of jambs. Each horizontal member (IS 453 and IS 452) are sealed at each end of member. Water deflectors caulked.

Other Features: Horizontal frame members are secured to vertical frame members by two (2) #10x1/2" (10 x 12.70 mm) screws at each joint. Each end dam secured by two (2) #6x1/2" (6 x 12.70 mm) screw.

Date Testing Started: July 22, 1996

Date Testing Completed: July 22, 1996

SUMMARY OF TEST RESULTS

| <u>TITLE OF TEST</u> | <u>TEST METHOD</u> | <u>MEASURED</u> | <u>ALLOWED</u> |
|---|--------------------|---|---|
| Air Infiltration @ 6.24 psf (30.46 kg/m ²) | ASTM E 283-91 | 0.02 CFM/Ft ² (0.009 liter/sec) | 0.06 CFM/Ft ² (0.028 liter/sec) |
| Water Resistance @ 10.00 psf (48.82 kg/m ²) | ASTM E 331-93 | No Leakage | No Leakage |
| Uniform Load Deflection | ASTM E 330-90 | | |
| - Exterior 20.0 psf (97.64 kg/m ²) | | 0.178" (4.52 mm) | 0.550" (13.97 mm) |
| - Interior 20.0 psf (97.64 kg/m ²) | | 0.200" (5.08 mm) | 0.550" (13.97 mm) |
| Uniform Load Structural | ASTM E 330-90 | | |
| - Exterior | | 30.0 psf * (146.44 kg/m ²) | 30.0 psf * (146.44 kg/m ²) |
| - Interior | | 30.0 psf * (146.44 kg/m ²) | 30.0 psf * (146.44 kg/m ²) |
| - Permanent Set | | Negligible | 0.385" (9.779 mm) |

* No glass breakage, permanent deformation, or other damage causing the unit to be inoperable.

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

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TESTING LABORATORY



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