



Wednesday, June 27, 2007

Project:

To Whom It May Concern:

It is my understanding that you are attempting to obtain approval of Tubelite's E4500 Series framing system for this project, and that test reports are required.

Tubelite has not performed any testing on our E4500 system. We have, however tested our E/T14000 Series system, which is the same design, but modified to allow use of 1" glass.

I have enclosed two sheets from ATI report number 01-34096.01 which show the air infiltration and water penetration test results for our T14000 framing system. Tubelite will guarantee similar results under similar conditions when properly installed.

Regarding stress and deflection due to wind-load, we can provide calculations based on the actual section properties of the E4500 Series framing members for the project conditions and requirements.

If you would like additional information for assistance, please call or write: 800/866-2227  
[dependable@tubeliteinc.com](mailto:dependable@tubeliteinc.com)

Sincerely,

Tubelite Inc.  
Engineering Dept.

Enclosure:

4500test.doc

**FORMAL TESTING**

All tests were performed utilizing the base guidelines provided by Tubelite incorporating the appropriate procedures outlined by AAMA and ASTM as referenced below:

1. **PRELOAD** +15.0 PSF static pressure (50% of the positive design load for ten (10) seconds).

**ALLOWED:** No failure of the system

**RESULTS:** No failure of the system

The above result constitutes an acceptable performance.

2. **STATIC AIR INFILTRATION** (ASTM E283) at 6.24 PSF (50 MPH wind and 1.2" H<sub>2</sub>O).

**ALLOWED:** 3.8 CFM gross leakage or .06 CFM per square foot.

**RESULTS:** 3.0 CFM gross leakage or .047 CFM per square foot.

The above results constitute an acceptable performance.

3. **STATIC WATER INFILTRATION** (ASTM E331) at 10.0 PSF (63 MPH wind and 1.92" H<sub>2</sub>O) with a water spray rate of five (5) gallons per hour per square foot minimum for fifteen (15) minutes.

**ALLOWED:** No uncontrolled water infiltration to the room side.

**RESULTS:** No uncontrolled water infiltration to the room side.

The above result constitutes an acceptable performance.

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T14000-Center THO

4. **STATIC WATER INFILTRATION** (ASTM E331) at 12.0 PSF (69 MPH wind and 2.3" H<sub>2</sub>O) with a water spray rate of five (5) gallons per hour per square foot minimum for fifteen (15) minutes.

**ALLOWED:** No uncontrolled water infiltration to the room side.

**RESULTS:** No uncontrolled water infiltration to the room side.

The above result constitutes an acceptable performance.

5. **DYNAMIC WATER INFILTRATION** (AAMA 501.1) with a 100 MPH wind velocity at the prop creating a slip stream wind speed at the face of the wall of 69 MPH at the wall equivalent to 12.0 PSF. Water was applied at a rate of five (5) gallons per hour per square foot for fifteen (15) minutes.

**ALLOWED:** No uncontrolled water infiltration to the room side.

**RESULTS:** No uncontrolled water infiltration to the room side.

The above result constitutes an acceptable performance.

6. **STRUCTURAL DESIGN LOADING** (ASTM E330) with each load being held for a duration of ten (10) seconds.

+15.0 PSF ( 50% Positive Design Load)  
+30.0 PSF (100% Positive Design Load)  
-15.0 PSF ( 50% Negative Design Load)  
-30.0 PSF (100% Negative Design Load)

**ALLOWED:** No member shall have deflection greater than L/175 of its span or .37" vertically a .25" horizontally.