TUBELITE®
DEPENDABLE
LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

TEST REPORT SUMMARY

AIR - WATER – STRUCTURAL – THERMAL CYCLING

TU24000 Series Storefront

PRODUCT **TU24000 Series Storefront**

2” x 4-1/2” (dual pour-debride thermal barrier)

TEST RESULTS

Air Infiltration	*ASTM E283*	**0.06 cfm/ft^2 @ 6.24 psf**
Static Pressure Water Resistance	*ASTM E331*	**12 psf**
Dynamic Pressure Water Resistance	*AAMA 501.1*	**12 psf**
Structural – Design Load	*ASTM E330*	**30 psf**
Thermal Cycling	*AAMA 501.5*	**0 ^{O}F to 180 ^{O}F**
Structural – Overload	*ASTM E330*	**45 psf**

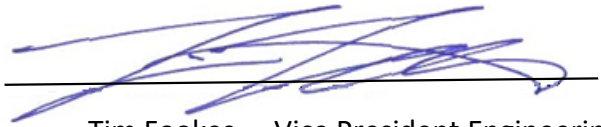
TEST LAB

INTERTEK – ATI

West Palm Beach, FL 33407

Report Number	C4480.01-450-44	C4480.04-450-44
Test Date	4/12/13	5/30/13
Report Date	5/1/13	7/15/13

Reference ATI reports in above table for complete test specimen description and data.

Tubelite Representative:  (sign) 2/8/2018 (date)

Tim Fookes - Vice President Engineering (title)

TEST METHODS

Air Infiltration: *ASTM E283-04, Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*. Testing was conducted at 6.24 psf positive static air pressure difference.

Static Pressure Water Resistance: ASTM E331-00, *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, Curtain Walls by Uniform Static Air Pressure Difference.* Testing was conducted at 12 psf positive static air pressure difference for 15 minute duration. Water applied at a minimum rate of 5 gal/ft^2/hr.

Dynamic Pressure Water Resistance: AAMA 501.1-05, *Standard Test Method for Water Penetration of Windows, Curtain Walls, and Doors Using Dynamic Pressure.* Testing was conducted with a dynamic pressure equivalent of 12 psf for a 15 minute duration. Water applied at a minimum rate of 5 gal/ft^2/hr.

Structural Performance: ASTM E330-14, *Standard Test Method for Structural Performance of Exterior Windows, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.* Testing was conducted at +/- 30 psf design loads and +/- 45 psf overloads. Allowable Criteria: Design - L/175 deflection normal to wall plane for clear spans up to 13'-6". Overload – net permanent set shall not exceed 0.2% of the clear span.

Thermal Cycling: AAMA 501.5-07**,** *Standard Test Method for Thermal Cycling of Exterior Walls.* Testing was conducted with three thermal cycles. Each cycle maintained for two hours after establishing the following temperatures and consist of:

a. Low exterior temperature of 0 ^{o}F.
b. High exterior temperature of 180 ^{o}F.
c. Interior temperature maintained between 70 ^{o}F and 80 ^{o}F.
d. System components shall withstand thermal movements without buckling, distortion, cracking, failure or glass, and failure of joint seals or undue stress on the finished surfaces, materials, or fixing assemblies.