



<u>Product Manufacturer:</u> Enviralum Industries INC. 5110 N.W. 72 AVENUE BLDG. C Miami, FL. 33166	<u>Product Name/Model & Description:</u> ENV-450 Aluminum Window Wall System- L.M.I –Large missile impact
---	---

EQUIVALENCY OF STANDARDS EVALUATION

Code: 7th Edition of Florida Building Code (2020), inclusive of all Supplements effective as of this report date.

Compliance Method: Product Approval Rule 61G20-3.015(4)(d) – Equivalency of Standards

Certification of Equivalence: The testing standards listed below, although not explicitly referenced within the above-noted building code, are hereby deemed equivalent for the purposes of determining this product’s compliance with the above-noted building code:

Product Testing and Certification:

- Blackwater Testing, Inc.– West Palm Beach, FL test report #BT-ENI-16-003
- Blackwater Testing, Inc.– West Palm Beach, FL test report #BT-ENI-16-003B
- Fenestration Testing Laboratory.–8148 NW Avenue Medley, FL test report #FTL-6678

Performance Testing:

- TAS 201-94 (Large Missile Impact Test)
- TAS 202-94 (Uniform Static Test, Forced Entry Test)
- TAS 203-94 (Cyclic Wind Pressure Loading)

Equivalency Evaluation to AAMA 501-15:

- Code Requirements for testing to AAMA 501-15:
 - Section 1715.5.6 of the Florida Building Code requires glazed curtain wall, window wall and storefront systems to be tested in accordance with the requirements of that section and the Laboratory Test requirements of the American Architectural Manufacturers Association (AAMA) Standard 501 with HVHZ complying with Section 2411.3.2.1.1.
 - This product is tested to HVHZ requirements. Product approval is for HVHZ.
 - Therefore, Section 2411.3.2.1.1 governs with regards to Load Sequencing.
 - All other requirements of Section 1709.8.4 must be met.
 - Section 2411.3.2.1.1 requires glazed curtain wall, window wall and storefront systems to be tested in accordance with the requirements of that section and the laboratory test



requirements of the American Architectural Manufacturers Association (AAMA) Standard 501, following test load sequence and test load duration in TAS 202.

- Test Reports listed above tested this product in accordance with TAS 202 and its required load sequencing.
- Conformance to AAMA 501-15:
 - Laboratory Test requirements in AAMA 501-15 include sections listed as required and as optional. They are:
 - **Required** – All required testing performed and documented in Test Reports listed above demonstrate compliance with Section 1709.8.4 and Section 2411.3.2.1.1.
 - Section 2.1 - Test Load Sequence
 - Section 2.2 - Preload Test at 50% DP
 - Section 2.3 - ASTM E283 Air Leakage
 - Section 2.4 - ASTM E331 Water Penetration
 - Section 2.9 - ASTM E330 Testing
 - Section 2.10 - ASTM E331 Water Resistance Repeated
 - Section 2.11 - ASTM E330 at 150% DP
 - All above tests in TAS 202 were performed in accordance with the standard requirements as documented in Test Reports listed above.
 - **Optional** – The following sections in AAMA 501-15 are listed as optional and were not performed.
 - Section 2.5
 - Section 2.6
 - Section 2.7
 - Section 2.8
 - Section 2.12
 - Section 2.13
 - Section 2.14
 - Section 2.15
- Conclusion
 - Based on the above evaluation, the Laboratory Test requirements of the American Architectural Manufacturers Association (AAMA) Standard 501 with HVHZ complying with Section 1709.8.4 and Section 2411.3.2.1.1 of the 7th Edition of Florida Building Code (2020) have been met by the testing documented in Test Reports listed above.



January 05th, 2021