

November 1, 2018

**Engineering Evaluation
Report: 18-0816.01**

Prepared by: Theodore Berman, P.E.
Florida Professional Engineer License No. 09814

1. Manufacturer:

THERMASTEEL INC
609 West Rock Road
Radford, Virginia 24141

2. Product Line:

Thermasteel Wall Panels

3. Product Description:

12 foot Structural Panels described on test report as: "The ThermaSteel hurricane panels are molded in a 5-1/2" thick by 48" wide by 144" high configuration. On the exterior (outside facing or impact surface) eleven 3/4" by 3-1/2" by 144" 24 gauge galvanized TS-C profiles are spaced at 5" on center with a 3/4" by 4-1/4" "L" metal overlapping the adjoining panel and is screw attached to the adjoining component with #8 x 1/2" galvanized self-tapping screws at 12" on center. On the opposite non-impact side, four 20 gauge galvanized 1-5/8" by 3-5/8" by 144" CSJs are spaced at 16" on center. Two 20 gauge galvanized 1-5/8" by 3-5/8" by 144" CSJs are positioned and screw attached through the leg of the interior side stud into the web of the perpendicular internal studs. The two center studs are braced such that the webs of the two internal studs are perpendicular to the webs of the interior surface studs."

4. Code Compliance:

The above mentioned product has been evaluated for compliance with the requirements of the Florida Building Code 6th Edition (2017) and as per Rule 61G20-3.

5. Supporting Documents:

Testing: Architectural Testing, Report No. : 55247.01-122-1 Dated 02/24/05

Testing Standards: TAS 201, TAS 202, TAS 203 and ASTM E72

6. Limitations and Conditions of Use:

1. Maximum allowable design pressure: +75/-75 PSF
2. This product has been tested for large impact protection in accordance with TAS 201 and TAS 203
3. Maximum racking shear value of : 642 plf
4. Maximum compression value of : 750 plf
5. Exterior wall panels shall be protected with a water-resistive barrier in accordance with Chapter 14.
6. All steel members shall be manufactured in accordance with ASTM A653 SS, Grade 37, and coated with ASTM A924 G60 galvanizing/galvalume.
7. EPS panels shall be manufactured in accordance with ASTM C578. The flame-spread index and smoke density index shall be less than 25 and 450, respectively, at a nominal density of 1.3 pounds per cubic foot.
8. This product may be used outside and inside the HVHZ zone.
9. All supporting host structures shall be able to support the superimposed loads.
10. Product data shall be in accordance with these Installation Instructions and manufacturer's published instructions.
11. Product shall be installed with anchors shown on installation drawings not to exceed the spacing indicated. All screws shall be stainless steel.
12. All components that are permanently installed shall be protected from contamination and corrosion.
13. Site conditions that deviate from the details on the installation instructions and/or drawings will require further analysis from a licensed Professional Engineer.

7. Quality Assurance:

The manufacturer has demonstrated compliance of products in accordance with the Florida Building Code and Rule 61G20---3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity:

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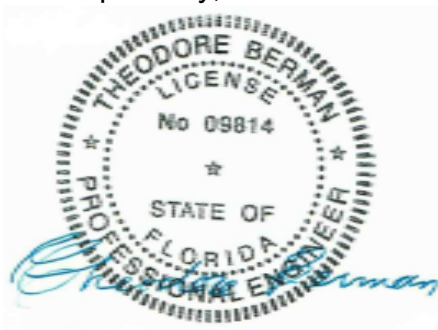
(FBC Organization QUA 10547)

Product shall be labeled in accordance with the requirements of the quality assurance entity.

8. Certification of Independence

Theodore Berman, P.E., does not have nor will acquire a financial interest in any company manufacturing or distributing the product(s) for which this report is being issued. Also, Theodore Berman, P.E. does not have nor will acquire a financial interest in any other entity involved in the approval process of the listed product(s).

Respectfully,



11/01/2018

Theodore Berman, P.E.
Florida License No. 09814
Ted Berman and Associates, LLC
Certificate of Authorization No. 27502



STATE OF FLORIDA
DEPARTMENT OF COMMUNITY AFFAIRS

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JEB BUSH
Governor

THADDEUS L. COHEN, AIA
Secretary

MEMORANDUM

Florida Building Commission
Raul L. Rodriguez, AIA, Chairman

Date: December 6, 2006

Re: Demonstration of Product Compliance for the High Velocity Hurricane Zone and Other Areas Accepting "NOA's"

Florida Statutes, section 553.842, govern local and state approval of building products directly related to the structural wind resistance of buildings. The law establishes specific methods for manufacturers to demonstrate compliance with the Florida Building Code but gives the manufacturer the option of obtaining either local or state approval. State approved products must be accepted by local jurisdictions within the limitations of use established by the state approval without requirement for further testing, evaluation or submission of evidence. (Florida Statute, section 553.842(4) Products or methods or systems of construction requiring approval under s. 553.77 must be approved by one of the methods established in subsection (5) before their use in construction in this state. Products may be approved by the commission for statewide use. Notwithstanding a local government's authority to amend the Florida Building Code as provided in this act, statewide approval shall preclude local jurisdictions from requiring further testing, evaluation, or submission of other evidence as a condition of using the product so long as the product is being used consistent with the conditions of its approval.) When a product is state approved the local jurisdiction's authority extends only to determining the product is being used within the conditions established by the approval.

State approval of products for use in the High Velocity Hurricane Zone (HVHZ) is commonly but not always based on a Miami-Dade Notice of Acceptance" (NOA). The law guarantees manufacturers other means of demonstrating compliance with HVHZ requirements so long as their products are tested or evaluated using the standards that apply in the HVHZ. The Miami-Dade Code Compliance Office reviews applications for state approval of HVHZ products and advise the Florida Building Commission on their compliance with HVHZ standards. Compliance can be determined by accessing the state approval online using the state approval number then checking the standards products were tested to and the "limitations of use" documentation.

Approval by the State or Miami-Dade County allows acceptance of a product for use within the HVHZ. However, the building permitting authority must determine whether products comply with the requirements of the Code specific to the building they are used in. The State or Miami-Dade approvals provide the information required for this determination. Further testing or engineering evaluation cannot be required unless the permit applicant wishes to demonstrate the product can be used outside of the approved limitations of use.

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