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## Product Evaluation Report

Date: Tuesday, April 29, 2014

Client: Intellibreeze  
2598 S. Atlantic Ave.  
Daytona Beach Shores, FL

Product: Intellibreeze Solar Exhaust Fan Model 1  
Flush Mount

Product Description: Evaluate Intellibreeze Solar Power attic fan for compliance with the 2010 Florida Building Code - Building and Residential Volumes.

Compliance Method: Product Approval Rule 9N-3.005 (2)(b) - Product Evaluation Report by a Licensed Engineer

Product Category: Roofing

Product Sub-Category: Roofing Accessories that are an Integral Part of the Roofing System.

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Report No.: 04-11178



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# Product Scope

Evaluate the Intellibreeze Solar Power Attic Fan for conformance with the 2010 Florida Building Code - Building and Residential Volumes, excluding the High Velocity Hurricane Zone (HVHZ).

## Description of Product

The solar attic fan is a roof mounted system powered by a solar panel attached to the top of the fan unit. The Solar panel may be mounted at an angle to improve photo voltaic efficiency. The enclosed fan unit has a self-flashing corrosion resistant alloy fan base. The solar Roof top fan unit may be installed on either a flat or low slope roof and on sloped roofs up to 8:12 slope. Installation and anchorage requirements are as per the installation drawings see reference 1.

## Limitation and Conditions of Use

This product evaluation report contains and makes reference to specifications, technical details, installation details and methods that pertain to the proper use of the product. Specific limitations and conditions of its use including, but not limited to, the following:

- Design Pressure Rating (PSF)
- Installation substrate requirements
- Installation anchor requirements
- Installation restrictions
- Product description
- The maximum roof slope is 8:12
- Not for use in HVHZ jurisdictions
- This evaluation is for mean roof heights of 33 feet or less.

## Fan Base Support

Roof Deck - Wood Deck (the design of the roof and structural support system is outside the scope of this evaluation)

Minimum Structural Requirements: 15/32" CDX plywood or Oriented Strand Board (OSB) or wood plank decking with a minimum specific gravity/density of 0.42)

## **Performance**

The attic exhaust fan unit shall have a wind resistance for the following pressures.

Positive Design Wind Pressure: + 74 PSF

Negative Design Wind Pressure: - 74 PSF

Maximum desing wind speed 178 MPH for Exposure B with 30 feet mean roof height.

## **Applications & Installations outside the Limitations and Conditions of use of this Product's Approval**

Rule 9N-3.005(1)(e) states "Rational engineering analysis cannot be used in lieu of a standard test required by the Code for approval of products within the scope of the standard, except that project specific approval by the local authorities having jurisdiction in accordance with alternate methods and materials authorized in the Code."

Any modification to this product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others. As allowed in Rule 9N-3.005(1)(e), a project specific approval by the local authorities having jurisdiction may be used given an appropriate rational analysis is conducted and deemed acceptable to the local authorities having jurisdiction.

# Code Conformance- Structural

No specific code conformance requirements exist outside of the High Velocity Hurricane Zone (HVHZ) for structural adequacy of roof mounted attic fans. Therefore, this product is not specifically addressed in the code for non-HVHZ applications. Section 1714 and 1609 of the 2010 FBC was used to determine an acceptable means by which to ascertain the structural adequacy of the roof mounted attic fan.

Engineering calculations based on the anchorage requirements, the product described herein has demonstrated compliance with the 2010 Florida Building Code, Section 1609 for wind loads not to exceed: + 74 / - 74 and Section 1714.2.

## References

### 1. Drawings

Intellibreeze - Installation and Anchorage Details

Sincerely,



Joseph D. Hiller, P.E.  
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