



**KNEZEVICH ASSOCIATES**  
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## EVALUATION REPORT

**KA Job No.:** 12-142      **Date:** April 23, 2012

**FBC Evaluation Report No.:** **FL11398-R2**

**Code:** Florida Building Code, 2010

**Product Category:** Shutters

**Product Sub-Category:** Storm Panel

**Product Name:** 0.050" Aluminum Storm Panel

**Manufacturer:** Town and Country Industries  
A Division of ABC Supply, Inc.  
400 West McNab Road  
Fort Lauderdale, FL 33309

### 1. PURPOSE OF EVALUATION REPORT

This is an Evaluation Report issued by Knezevich Associates and V. John Knezevich, P.E. (System ID No. 9329) to TOWN AND COUNTRY INDUSTRIES, based on Rule Chapter No. 9B-72.070, Method 1(d) product Approval, Florida Building Commission, Department of Community Affairs. This 0.050" Aluminum Storm Panel system has been evaluated and found to be in compliance with the Code and that these products are, for the purpose intended, at least equivalent to that required by the Code.

Re-evaluation of this Evaluation Report is required, following any code changes, to maintain its validity.

Evaluation Report Prepared by:  
KNEZEVICH ASSOCIATES

V. John Knezevich, P.E.  
President  
April 23, 2012  
Florida License No.: PE 10983  
Florida COA No.: 27989



## **2. SUBSTANTIATING DATA**

### **2.1 PRODUCT EVALUATION DOCUMENT**

TOWN AND COUNTRY INDUSTRIES., 0.050" Aluminum Storm Panel, Drawing No. 12-142 with no revisions, dated April 23, 2012, Sheets 1 through 6 of 6, prepared by Knezevich Associates (KA), signed, dated and sealed by V. John Knezevich, P.E. is an integral part of this Evaluation Report.

### **2.2 TEST REPORTS**

Test reports #00-013 and #00-028 for Uniform Static Air Pressure in accordance with PA 202, Large Missile Impact and Cyclic Testing in accordance with PA 201 and PA 203 were prepared by Construction Testing Corporation (CTC), Miami, Florida.

Hurricane Testing Laboratory (HTL) Report #0353-0804-10 was issued for Confirmation Testing performed by HTL during the period from 8/26/2010 through 8/30/2010. Tests included TAS 201 and TAS 203.

Tensile Capacity of aluminum alloy extrusions was determined with Webster Gauge Model B.

### **2.3 STRUCTURAL ENGINEERING CALCULATIONS**

KA prepared rational and comparative analyses of aluminum storm panel shutter performance and anchor calculations. From these analyses, a maximum shutter span vs. design load schedule was prepared for 0.050" Aluminum Storm Panel. Anchor spacing vs. design load schedule was also prepared, indicating maximum anchor spacing for given span conditions at specific design loads for each type of anchor.

No increase in allowable stress has been used in the design of this product.

## **3. IMPACT RESISTANCE**

This storm panel shutter system satisfactorily passed the large missile impact testing in accordance with TAS 201. This storm panel shutter system satisfactorily passed the fatigue load testing in accordance with TAS 203.

This storm panel shutter system may be used to protect glazed openings from windborne debris, when installed in accordance with the limitations indicated in the referenced drawings.

## **4. WIND LOAD RESISTANCE**

This storm panel shutter system has been designed and tested in accordance with TAS 202 to resist wind pressures as indicated by the span schedule (Table 1), page 6 of 6 of the referenced drawing.



**5. ANCHORS**

The maximum anchor spacing, minimum edge distance & minimum embedment for each type of anchor, shutter span and design wind load is found in the Anchor Schedule of the referenced drawing.

**6. INSTALLATION**

This storm panel shutter system is to be installed in accordance with the typical details, General Notes, Schedules, Tables and material specifications found in the referenced drawing.

**7. MATERIAL SPECIFICATIONS**

See General Notes of the reference drawing, unless otherwise noted, for material specifications. All dimensions of components are indicated in the referenced drawings. Anchor specifications including acceptable substrate, minimum embedment, edge distance and manufacturer are indicated in the referenced drawing.

**8. LIMITATIONS AND CONDITIONS OF USE**

- This product is suitable for installation in the High Velocity Hurricane Zone (HVHZ).
- This product may only be installed on concrete, hollow concrete block or wood substrates. For all other conditions site specific design shall be performed by KA or our delegated engineer.

**Tom Johnston**

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**From:** Ted Berman, P.E. [ted@tedbermanllc.com]  
**Sent:** Monday, May 21, 2012 9:24 PM  
**To:** Tom Johnston; orlandoblanc@gmail.com  
**Cc:** TBA; P.E. (simon@tedbermanllc.com) Simon Segal  
**Subject:** FL11398-R2

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Florida Product Approval Applicant,

Your Florida product approval application has received the following administrator and public comments:

11398-R2	Town and Country Industries,	Shutters	Storm Panels	Product .1 references the 2007 FBC certificate of compliance to the 2011 FBC provided on the previous self-affirmation application.
11398-R2	Public Comment by Jaime Gascon			Evaluation reports for products .2 should at least list the report number.

You may respond to the comment(s) by May 24, 2012 NOON EST. Your response will be used by us and the POC to provide a recommendation to the FBC.

*Ted Berman, P.E.*

Product Approval System Administrator

**Ted Berman and Associates LLC**

Certificate of Authorization # 27502

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