



**ENGCO Inc.**  
Engineering Services

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**PRODUCT EVALUATION REPORT**  
**RULE 9B-72.070 (1) (d) – EVALUATION REPORT FROM A PROFESSIONAL ENGINEER**  
**Report Number: 11-241**

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**1- Date:** 12/10/2011

**2- Manufacturer:** Croci North America  
6360 Topaz Court  
Fort Myers – Florida, 33912

**3- Product Name:** ES 44 SUP Roll Up Shutter  
Extruded Aluminum Roll Shutter

**4- Evaluation Entity:** Florida Professional Engineer  
Pedro Paulo M. De Figueiredo – PE 52609  
5595 Orange Drive Suite 201  
Davie – Florida – 33314

**5- Statement of Compliance:** This product evaluation report is being issued per Rule Chapter No. 9B-72 section 9B-72.070 (1) (d) of the Department of Community Affairs – Florida Building Commission. The products covered by this report have proven to be in compliance with the Florida Building Code 2010, included but not limited to the following standards: ASTM E330, E1996, E1886; TAS 201, 202, 203; SSTD12-99, Aluminum Design Manual 2005 and AF&PA NDS 2005.

**6- Product Description:** This product is an Aluminum Rolling Type Shutter designed, constructed and erected to easily enclose an area, providing protection from hurricane force winds and large missile windborne debris within the allowable designed pressures and limitations stated in this approval. Specification, fabrication and installation as per drawings 11-241.

## 7- Technical Documentation:

**7.1- Approval Document:** Drawing number 11-241 prepared by Engco, Inc. on 12/06/11 sheets 1 through 10 of 10, titled " ES 44 SUP Extruded Aluminum Roll-Up Shutter " signed and sealed by Pedro De Figueiredo, PE.

**7.2- Test Reports** – ASTM E330-02, E1996-02 (missile level "D"), 1886-02, TAS201, 202, 203 as per section 1609.1.4 of the Florida Building Code 2007 prepared by Fenestration Testing Lab, reports # 5634 & 5770, dated 08/27/2008 & 10/28/2008.

**7.3- Calculations:** Calculations numbered 08-156 and 2010 compliance update numbered 11-241 prepared, signed and sealed by Pedro De Figueiredo, PE.

## 8- Limitation and Conditions of use:

**8.1** – Product is not designed for installations inside the "High Velocity Zones" (Miami and Broward Counties) as defined on section 202 of the Florida Building Code.

**8.2** – Product is not designed for installations inside the "Wind Zone 4" as defined in ASTM E1996-05 and FBC 2010 section 1609.1.2.4.

**8.3-** Product is not designed for installations on "Essential Facilities" as defined in the ASCE 7.

**8.4** – Product to be manufactured, designed and installed as per drawing specifications 11-241, prepared by Engco, Inc dated on 12/06/2011 and signed and sealed by Pedro De Figueiredo, PE.

## 9- Others:



Pedro De Figueiredo  
Fl. P.E. License: 52609  
System ID: 2504