



WALTER A. TILLIT, JR., P.E.

PRODUCT EVALUATION REPORT
FL 11968.4

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FL P.E. License No. 44167
FL E.B. License No. 0006719

REPORT NO.: 17-0726.03
DATE: July 26, 2017
PRODUCT CATEGORY: Hurricane Shutters
PRODUCT SUB-CATEGORY: Storm Panels
PRODUCT NAME: Clear Bertha Storm Panel
MANUFACTURER: Eastern Metal Supply, Inc.
4268 Westroads Drive
West Palm Beach, Florida 33407

1. PURPOSE OF EVALUATION:

This is a Product Evaluation Report issued by **Walter A. Tillit, Jr., P.E.** (System ID # 1906) to the **Eastern Metal Supply, Inc, Rule Chapter No. 61G20-3, Method 1D of the Florida Department of Business and Professional Regulation.**

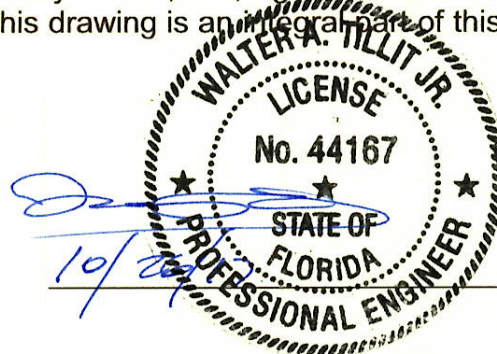
This product is being issued an Evaluation Report as described herein, and has been verified for compliance in accordance with the **2017 sixth** edition of the Florida Building Code, and to verify that the product is for the purpose intended at least equivalent to that required by the Code.

This Product Evaluation Report shall be subject to review and revision in case of a Building Code change that may affect its limitations and conditions.

2. EVIDENCE SUBMITTED:

2.1. PRODUCT EVALUATION DOCUMENT (P.E.D.):

Drawing No. 17-098 (Revises Drawing # 15-046), titled "CLEAR BERTHA STORM PANEL", sheets 1, thru 5 of 5 prepared by Tilteco, Inc.; signed and sealed by Walter A. Tillit, Jr., P.E.; dated 07/26/17. This drawing is an integral part of this Evaluation Report.



2.2. TEST REPORTS:

Large missile impact load tests were performed per Impact Testing equivalent to ASTM E-1996 standard, as per section 1609.1.2 of the Florida Building Code. Uniform static loads as per TAS 202 Protocol (ASTM E-330). Test reports prepared by American Testing Lab of South Florida, Report No. 0130.01-01, dated April 2, 2004, signed by Keith Harker and signed and sealed by William R. Mehner, P.E. and Henry Hattem, P.E., Report # 0703.01-07, dated 8/1/07 signed by Jose L. Mir and signed and sealed by William R. Mehner, P.E. and Henry Hattem, P.E., Report No. ETC 01-753-10724.1, dated, July 28, 2004, signed and sealed by Joseph L. Doldan, P.E. for Self-Ignition Temperature, Rate of Burn and Smoke Density tests of G.E. Plastics Polycarbonate as well as ETC 05-718-16934.1, dated 11/10/05, signed and sealed by Joseph Labora Doldan, P.E., for Dow Chemical – Calibre 302 V-6 (UV Stabilized); as well Miami-Dade County NOA # 17-0410.01 for Covestro, LLC, producer of Makrolon 1804 Polycarbonate. Mill certificates from Easco Aluminum (extruders) certifying aluminum alloys & temper for components.

2.3. STRUCTURAL ENGINEERING CALCULATIONS:

On Clear Bertha Storm Panel for maximum panel length vs. design wind load, as well as maximum anchor spacing vs. design wind load and panel length based on rational and comparative analysis, and in accordance with section 1604 of the Florida Building Code. Calculations prepared by Tilteco, Inc., dated September 7, 2005, signed and sealed by Walter A. Tillit, Jr., P.E.

3. MISSILE IMPACT RESISTANCE:

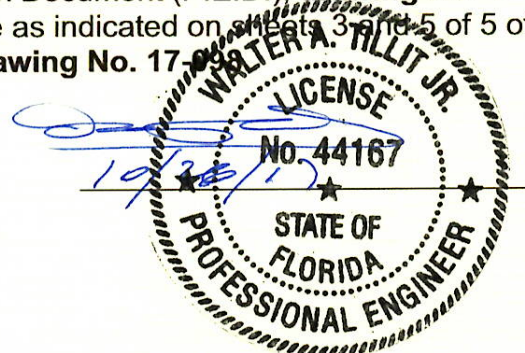
Large missile impact under section 1609.1.2 of the Florida Building Code, as per Impact Testing equivalent to ASTM E-1996 standard, valid only for wind zones 1, 2 and 3 as defined by ASTM E-1996.

4. WIND LOADS RESISTANCE:

Clear Bertha Storm Panel has been verified to sustain wind pressures. Maximum panel length shall be as indicated on sheet 3 of 4 of Product Evaluation Document (P.E.D.), **drawing No. 17-098**. Maximum Anchor Spacing shall be as indicated on sheet 4 of 5 of Product Evaluation Document (P.E.D.), **drawing No. 17-098**. Clear Bertha Storm Panel has been verified for code compliance to work as a non-porous storm shutter assembly, as per SSTD 12-99 Standard.

5. INSTALLATION:

Installation shall be performed strictly in accordance with the details indicated on sheets 3, 4 and 5 of 5 of Product Evaluation Document (P.E.D.), **drawing No. 17-098**. Minimum separation to glass shall be as indicated on sheets 3 and 5 of 5 of Product Evaluation Document (P.E.D.), **drawing No. 17-098**.



6. MATERIAL CHARACTERISTICS AND SPECIFICATIONS:

Shall be strictly in accordance with General Notes and Components indicated on sheet 1 and 2 of 5, of Product Evaluation Document (P.E.D.), **drawing No. 17-098**

Anchor specifications shall be as indicated on sheets 1 and 5 of 5 of Product Evaluation Document (P.E.D.), **drawing No. 17-098**.

7. LIMITATIONS AND CONDITIONS OF USE:

7.1. Shall be strictly in compliance with General Notes No. 1, 7, 8, 9, 10, 11, 12 and 13, indicated on sheet 1 of 5, of Product Evaluation Document (P.E.D.), **drawing No. 17-098** prepared by Tilteco, Inc. and signed and sealed by Walter A. Tillit, Jr., P.E.

7.2. Product **shall not** be installed within HIGH VELOCITY HURRICANE ZONES as defined on section 1620.2 of the Florida Building Code.

7.3. Product shall only be installed into poured concrete, concrete block, and wood frame structures.

7.4. Product installation shall be limited to wind zones 1, 2 and 3, as defined by ASTM E-1996 standard.

Product Evaluation Report prepared by Walter A. Tillit, Jr., P.E. (Florida License No. 44167), President of Tilteco, Inc. (Florida EB-0006719).

