Loss Mitigation Grant Program
Wind Resistive Device (WRD) Product Evaluation

The product as described herein has been evaluated by the Department of Commerce and Consumer Affairs (DCCA) for compliance with the technical requirements for wind resistive devices installed in single or multi-family residential dwellings. Installation costs of approved products are partially reimbursable under the provisions of the Loss Mitigation Grant Program. The results of the product evaluation are presented in the following report.

1.0 Product Information

1.1 Product Name:

Storm Buster SB-16 Hurricane Storm Panel

1.2 Description:

Storm Buster SB-16 Hurricane Storm Panels are 0.625" thick corrugated polypropylene panels designed to be temporarily mounted to exterior walls fastened with either a wing nut or "panel mate" insert to provide impact and wind load protection to all glazed openings.

1.3 Category:

Submitted for evaluation as a WRD option 3- Exterior opening protection

1.4 Submitted By:

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a. Manufacturer:

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2.0 Product Evaluation

2.1 Wind Loads:

a. Static Pressure:

Storm Buster SB-16 Hurricane Storm Panel was tested per ASTM E330-02, "Test Method for structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference." The results of these tests and allowable loads are given in table 1.

Table 1. Static Pressure Test Results

Test Method	Test Conditions	WRD Requirements	Test Conclusion
Static Load Test	+97.5 psf, -97.5 psf	IBC Section 1714.5.2	PASS

b. Cyclic Wind Pressure Loading:

Following large missile impact testing, units were tested under ASTM E1886-99, "Standard test method for performance of exterior windows, curtain walls, doors and storm shutters impacted by missile and exposed to cyclic pressure differentials." The results of the test are included in table 2.

Table 2. Cyclic Loading Test Results

Test Method	Test Conditions	WRD Requirements	Test Conclusion
Cyclic Load Test	+65.0 psf, -65.0 psf	+25.0 psf, -35.0 psf	PASS

2.2 Impact Resistance:

Storm Buster SB-16 Hurricane Storm Panel was tested per ASTM E1996. A #2 southern yellow pine 2x4 measuring 92" in length and weighing 9.25 lbs. was fired at a speed of 50 feet/second (missile impact D), and the panel passed per ASTM E1996 requirements.

Table 3. Impact Test Results

Test Method	Test Conditions	WRD Requirements	Test Conclusion
Impact Test	Missile Type D	Missile Type C	PASS

2.3 Installation:

Storm Buster SB-16 Hurricane Storm Panels are to be installed in accordance with the manufacturer's published installation instructions, engineering drawings and this report.

The manufacturer's published installation instructions and this report shall be strictly adhered to and a copy of these shall be available at all times on the job site during installation.

2.4 Substantiating Data:

a. Drawing No. STB0014, titled "16mm FASTRAC POLYPROPYLENE STORM PANEL", sheets 1 through 4 of 4, dated 4/17/07, prepared by PTC Engineering, Inc., signed and sealed by Marlon S. Hampton, P.E. (FL License No. 55863)

b. Test Report on Large Missile Impact Test, Cyclic Wind Pressure Test, and Uniform Static Pressure Test on SB-16 Hurricane Storm Panels, prepared by National Certified Testing Laboratories, Test Report No. NCTL-210-3184-1 dated 7/27/05, Signed and Sealed by Gerard J. Ferrara, P.E. (FL License No. 11985)

c. Anchor Calculations for 48"x96" Storm Panel, Large Missile Impact, dated 10/04/05, Report No. 2057, prepared by PTC Engineering, Inc., signed and sealed by Luis R. Lomas, P.E. (FL License No. 62514)

3.0 Findings

Evaluation in review of the submitted data indicates that the Storm Buster SB-16 Hurricane Storm Panel as described in this report does conform to the requirements of the loss mitigation grant program and is an acceptable WRD for use on window, door, or sliding glass door glazed openings for both masonry and double wall construction.

No anchorage details or test results have been provided for single wall construction common to Hawaii. Additional data must be submitted for WRD approved use on this construction type.

3.1 Limitations:

a. Storm Buster SB-16 Hurricane Storm Panel qualifies as an approved WRD product for use on masonry and double wall construction only. Not approved as a WRD device for single wall construction.

b. Storm Buster SB-16 Hurricane Storm Panels must be installed in accordance with the installation instructions in this report and the manufacturer's published installation instructions.

Gary Y. K. Chock, S.E.
Product Examiner
June 13, 2007