Corporate Offices / Laboratories

297 Buell Road
Rochester, NY 14624
(585) 328-7668
Fax: (585) 328-7777

ETC Laboratories

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Report Number: ETC-08-055-20752.0
Test Start Date: 03/06/2008
Test Finish Date: 03/12/2008
Report Date: 04/01/2008

Fenestration Impact Test Report

Rendered To:

Atlantic Premium Shutters
29797 Beck Road
Wixom, MI. 48393

Summary Description:
The products tested were shutters of varying materials and styles. Each shutter was 30 inches wide x 102 inches high covered with a protective 1/8 inch thick polycarbonate facing, secured to the exterior of the products with #12 x 1 inch long pan head screws. The overall rough opening was 60-1/4 wide x 102-1/4 high framed with 2 x 10 lumber and covered with plywood. The shutters were braced to the exterior face with two L shaped bars 60 inches wide x 2 inches high x 3 inches deep.

Specification:
The test specimens were impacted in accordance with ASTM test method E1886-05 and pressure cycling section was not performed.

Series / Model

Standard Mount Horizontal Storm Bar
Atlantic Classic Collection Faux Louver Shutters

Impact Test Results

Impact Location Specimens 1-3	Missile Speed (ft/sec)	Missile Orientation (deg.)	X Measurement (in.)	Y Measurement (in.)
Center of right panel	49.7	3.0	45-1/2	52
Upper right corner of right panel	49.5	2.7	53	6-1/2
Lower left corner of right panel	49.8	2.6	38	96
Center of right panel	49.7	2.9	45-1/2	51-1/2
Upper right corner of right panel	50.0	2.3	54-1/2	7
Center of right panel	50.5	3.1	45-1/2	52-1/2
Mid-span of bottom brace	50.5	2.7	30-1/4	77-1/2

Test Notes for Impact Tests

1. All three specimens were of identical construction.
2. The circles on the diagrams indicate the impact locations for that specimen.
3. The X measurement is from the left edge of the specimen.
4. The Y measurement is from the top edge of the specimen.
5. The large missile used was a piece of #2 southern yellow pine 2 x 4 dimensional lumber 92 inches long and weighing 9.0 lbs.
6. The specimens were conditioned in an environment with a temperature between 65 and 75 degrees F for at least 48 hr prior to testing.
7. Shutter cracked at impact locations, top corner impacts bent hinge.
8. Wind Zone 4 definition per ASTM E1996-05b. Section 6.2.2.4 *Wind Zone 4*-basic wind speed > 140 mph (63 m/s).

Summary of Results

Missile level resisted	D
Nominal missile speed resisted	15.25 m/sec (50ft/sec)
Wind zone achieved	4

NOTE: The test specimens were only tested to the impact portion of ASTM specification E 1886-05 and pressure cycling section was not performed.