

American Test Lab of South Florida

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Purpose of Research and Development testing

The purpose of this R & D testing is to determine the performance of the LCL-800-XSR/SS-800, 8 mil Safety film on inboard glass attachment to Impact Resistance. This testing was not intended to qualify for product approval

Date: 10/23/06

ATLSF Certification # 06-0216.05

Test Date: 9/28/06

Test Requested By - Madico, Inc., 64 Industrial Parkway, Woburn, Ma 01888

Phone (781) 756-4176 Fax (781) 932-8719

Product Description: Madico LCL-800-XSR/SS-800, 8 mil Safety film applied on inboard glass

<u>Tests Conducted:</u> ASTM E 1886-02, ASTM E 1996-02, Missile B impact only The Cycle test was not done as required by the Protocols ASTM E 1886-02, ASTM E 1996-02

Overall Size: 79" high x 51.5" wide

Configuration: Fixed Window

Frame: Extruded aluminum Kawneer 451 TriFab

Glazing:

Glazing Material: Insulated glass: 1/4" ann / 1/2" air space with a swiggle metal spacer / 1/4" ann. A LCL-800-XSR/SS-800, 8 mil Safety film on inboard glass and adhered to glass with a pressure sensitive adhesive. The film was recessed 0.750" from edge of glass.

Glazing Method:

Attachment film to frame: Skewed shaped hexagon 0.500" high x 0.071" thick to film x 0.687" long x 0.050" thick to frame, wet glazed with Tremco SSG silicone.

Attachment glass to frame: Dried glazed with a rubber gasket, bite on glass 0.428".

Disclaimer: This test report was prepared by American Test Lab of South Florida (ATLSF), for the exclusive use of the above named client, it does not constitute certification of this product. The results are for that particular specimen tested and does not imply the quality of similar or identical products manufactured or installed from specifications identical to the tested product. ATLSF is a testing lab and assumes that all information provided by the client is accurate and does not guarantee or warranty any product tested or installed.

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Daylight Opening: 76" high x 48" wide

Sealant: Frame was sealed to the wood buck test with Dap Alex Plus Latex/Silicone caulk

Additional Description:

Specimens A, B, C were installed in wood bucks, and tested per the Impact requirements of ASTM E 1886-02, ASTM E 1996-02, missile level B.

TESTS

IMPACT TEST - ASTM Missile Level B

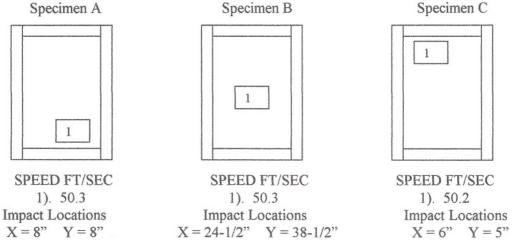
Impact tests were conducted in accordance with: ASTM E 1886-02, ASTM E 1996-02

Impact Locations:

Coordinates are as follows:

"X" horizontal edge distance from nearest closest supporting edge.

"Y" vertical edge distance from nearest closet supporting edge.



Specimens A, B, C

Type and weight of missile: Missile B (# 2 Southern Yellow Pine 2x4, length 18" & 2 LB 2 oz) (15 min prior to testing)

Date of testing 9/28/06

Temperature conditioning 4 hours prior to test: 78.0 degrees F (Ambient temperature)

Temperature of glass surface 15 mins prior to test: 84.5 degrees F

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Description of specimens after impact test:

A. The impact was made in the lower right corner of fixed lite. The impact shattered and penetrated the outboard glass. The impact shattered but did not penetrate the inboard glass and there was no separation of glass from the glazing system.

Results: Passed

B. The impact was made in the center of fixed lite. The impact shattered and penetrated the outboard glass. The impact shattered but did not penetrate the inboard glass and there was no separation of glass from the glazing system.

Results: Passed

C. The impact was made in the upper left corner of fixed lite. The impact shattered and penetrated the outboard glass. The impact shattered but did not penetrate the inboard glass and there was no separation of glass from the glazing system.

Results: Passed

Observers - 9/28/06

Keith Harker, Julio Valle - ATLSF Carl P Kernander - Madico

American Test Lab of South Florida do not own, operate or are controlled by the manufacturer and have no financial interest in the manufacturer company or manufacturer of parts vendor that does business with our client for this report.

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