

STRUCTURAL TEST REPORT

16" OC Studs Siding-Master™ Vinyl Siding Attachment/Alignment System

Rendered to:

Siding-Master
13441 Erskine Street
Omaha, Nebraska 68164

ATI Report Identification:	02-34102.02
Test Date:	04/17/02
Report Date:	04/19/02
Expiration Date:	04/17/02

Project Summary: Architectural Testing, Inc. (ATI) was contracted by Siding-Master to perform structural load testing in accordance with ASTM D 5206, Method B. Testing was performed on vinyl siding identified as Alcoa Single Nail Hem Panel. One sample was tested; the load before failure was 70.0 psf (167 mph).

Test Procedure:

The test specimens were evaluated in accordance with ASTM D 5206-91, iWind Load Resistance of Rigid Poly (Vinyl Chloride) (PVC) Siding.

Testing was conducted by first applying a 5 psf (45 mph) preliminary load. The loose-fitting, 2-mil plastic film was then positioned to allow the greatest transfer of load to the siding. Loads were then increased in 5 psf (45 mph) increments and maintained for 30 seconds until failure. Failure was defined as the point at which the tab tore, starter strip failed or the fastener pulled out or disengaged.

Test Specimen Description:

Product: Alcoa Single Nail Hem Panel

General Description: The vinyl siding was constructed of 0.040" thick vinyl with a wood-grain finish on the exterior. Each panel tier consisted of two 4" horizontal leaves interlocking at the nail hem. The nail hem consisted of vinyl that ran the length of the siding.

Test Buck: Test buck measured 33-1/2" wide by 39" high and was constructed of nominal 2" by 4" stud grade framing lumber. An intermediate stud was spaced 16" on center along the 33-1/2" wide span. Studs were secured to top and bottom plates with two 3" sheetrock screws. A 2-mil thick plastic film was loosely draped over the interior side of the studs to enable attainment of test pressures.

Test Specimen Description (Continued):

Siding Installation: A Siding-Master™ Vinyl Siding Attachment/Alignment System strip was attached in a vertical fashion to each stud. Each strip was secured using 1-5/8" drywall screws in every other hole. Each strip was fabricated from 22-gauge (0.029") sheetmetal. The strips were approximately 1-7/8" wide with each side having a double-fold return leg along the entire length of the strip. The vinyl starter strip was attached to a pre-fabricated 1-5/16" wide leg protruding perpendicular to the face of the strips, 3/8" and then down 3/8". A pre-fabricated 1-5/16" wide by 1-1/8" tall hand-like fastener was positioned by bending one of the fingers, nearest to the center of slot on nailing hen, at a 90o angle to rest of 'hand.' The remainder of hand was bent almost parallel, allowing the bent 'finger' to insert through slot of nailing hem and into a punched hole 1-5/16" wide by 1/4" high. Four tiers of single 8" ship-lap siding were locked into the receiving flange of the tier below and secured in a fashion described above.

Test Results:

Sample #1

Product: Alcoa Single Nail Hem Panel

Laboratory Temperature: 72.0o

Fastener Type: Siding- Master™ Vinyl Siding Attachment/Alignment System

Summary: Loads were increased in 5 psf (45 mph) increments with increasing deflection occurring from 20 psf (90 mph) to 70 psf (167 mph). At 75 psf (173 mph), failure occurred when clips 1 through 4 on right stud and clips 1 through 3 on center stud disengaged.

Ultimate Load at Failure: 75 psf (173 mph)

Witnesses: The following individuals witnessed all or part of the testing:

Name Company

Pat Carbaugh Architectural Testing, Inc.

Eric Schoenthaler Architectural Testing, Inc.

A copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product which may only be granted by the certification program administrator.

ARCHITECTURAL TESTING, INC.

Eric J. Schoenthaler - Technician
Daniel A. Johnson - Regional Manager

02-34102.02

DOCUMENT CONTROL ADDENDUM 02-34102.00

Current Issue Date: 04/19/02

Report No. 02-34102.01
Requested by: Greg Albracht, Siding-Master
Purpose: Structural testing on 24" O.C. Studs
Issue Date: 04/19/02

Report No. 02-34102.02
Requested by: Greg Albracht, Siding-Master
Purpose: Structural testing on 16" OC Studs
Issue Date: 04/19/02