Architectural Testing

PERFORMANCE TEST REPORT

Rendered to:

ASTECH ASSOCIATES, INC.

SERIES/MODEL: Qwik Brik
PRODUCT TYPE: Metal Frame and Stud Wall with Exterior Brick

Report No.:	**57374.01-122-44**
Test Date:	**04/27/05**
Report Date:	**05/13/05**
Expiration Date:	**04/27/09**

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PERFORMANCE TEST REPORT

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ASTECH ASSOCIATES, INC.
3201 Waterton Drive
Midlothian, Virginia 23113

Report No.:	57374.01-122-44
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Project Summary: Architectural Testing, Inc. (ATI) was contracted by AsTech Associates, Inc. to perform testing on a Series/Model Qwik Brik, wall system. Test specimen description and results are reported herein.

Test Method: The test specimen was evaluated in accordance with ASTM E 330-97, *Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.*

Test Specimen Description:

Series/Model: Qwik Brik

Product Type: Exterior Brick Wall System

Overall Size: 4' 0" wide by 4' 0" high

Overall Area: 16.0 ft^2

Frame Construction: Frame was constructed of "U" shaped steel members with two studs spaced 16" on center with coped corners and ends secured using two #6 x 1/2" self-drilling screws one on each side of the "U".

Panel Construction: Panel was constructed of 1/2" thick fiberglass coated drywall with a layer of 0.020" thick tar paper between the drywall and exterior metal brick support plates. The drywall was secured to the metal frame and studs using #6 x 1-1/4" self-drilling screws 1" from each end and spaced 12" apart. The metal support plates were secured using 1-1/4" long nails through the drywall and into the steel frame at each corner of each plate and spaced 8" apart around the frame perimeter and one at each plate end into both studs. The exterior Qwik Brik was secured to the metal support plates using adhesive and mortar between each brick.

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Test Specimen Description: (Continued)

Installation: The frame was installed into a Spruce-Pine-Fir test buck. The steel frame was set into the buck and secured using #10 x 1-1/2" screws two at each end 6" and 8" from each end and two at the midspan.

Test Results:

The results are tabulated as follows:

ASTM E 330	Uniform Load Deflection (Deflections reported were taken on the metal stud) (Loads were held for 10 seconds) 220.0 psf (negative)	1.48"
ASTM E 330	Uniform Load Deflection (Deflections reported were taken at the center of the wall) (Loads were held for 10 seconds) 220.0 psf (negative)	2.72"
ASTM E 330	Uniform Load Structural (Permanent sets reported were taken on the metal stud) (Loads were held for 10 seconds) 220.0 psf (negative)	0.78"
ASTM E 330	Uniform Load Structural (Permanent sets reported were taken at the center of the wall) (Loads were held for 10 seconds) 220.0 psf (negative)	1.54"

***Note**: Metal studs had visible permanent damage at 175.0 psf and became more severe as pressure was increased. Wall panel separated from the steel frame at 230.0 psf (negative) pressure.*

Special Note: No bricks came off of the metal support plates during or after tested pressures were released. A small section of grout did fall off after the wall panel separated from the steel frame.

Representative samples of the test specimen and a copy of this report will be retained by ATI for a period of four years from the original test date. This report is the exclusive property of the client so named herein and is applicable to the sample tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory. This report may not be reproduced, except in full, without the approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

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SG:vlm

Revision Log

Rev. #	Date	Page(s)	Revision(s)
0	05/13/05	N/A	Original report issue