

PERFORMANCE TEST REPORT

Rendered to:

QUICK-BRICK, LLC

PRODUCT: Brick Samples

 Report No:
 65185.01-106-31

 Report Date:
 06/23/06

 Expiration Date:
 06/19/10

130 Derry Court York, PA 17402-9405 phone: 717-764-7700 fax: 717-764-4129 www.archtest.com



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QUICK-BRICK, LLC 5150 Contura Drive Orlando, Florida 32810

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Project Summary: Architectural Testing, Inc. (ATI) was contracted by Quick-Brick, LLC to perform testing in accordance with ASTM E 488-96, *Standard Test Method for Strength of Anchors in Concrete and Masonry Elements*. The average peak shear load achieved was 448 pounds and the peak load for fastener pull-out was 657 lb. The following report details the individual results and methods used. The mode of failure in all test scenarios was failure of the brick sample to remain intact for the duration of the test. No failure of the fasteners themselves was recorded.

Test Method: The test specimens were evaluated on a SATEC universal testing machine. The samples were comprised of brick material into which two $\#12 \times 3"$ long sheet metal type fasteners had been installed by the manufacturer to a depth of 1.5". The first fastener in each sample was tested for shear strength while the brick sample was secured individually to the rigid steel frame of the testing machine. A force was applied to the fastener along the face of the brick in a downward direction at a rate of 0.25" per minute until failure. The remaining fastener in each sample was then tested for pull-out strength. The samples were secured individually to the base of the testing machine and a tensile force was applied at a rate of 0.25" per minute until failure.

Sample	Peak Shear Load	Peak Shear Strength ¹	Peak Pull-out Load
1	424 pounds	21,100 psi	681 pounds
2	524 pounds	26,100 psi	603 pounds
3	414 pounds	20,600 psi	631 pounds
4	460 pounds	22,900 psi	70 pounds 2
5	416 pounds	20,700 psi	714 pounds
Average	448 pounds	22,280 psi	657 pounds

Test Results: The results are reported in the following table.

¹ - The mode of failure for these tests was brick spalling and cracking. The failure loads listed do not represent metal shear of the fastener.

2 - The pull-out value for Sample 4 is suspect due to the result of damage of the brick caused by the adjacent shear test. This resulting value has been removed from all calculations.

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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.

For ARCHITECTURAL TESTING, INC.:

Bernard A. Albright Technician - Component/Materials Testing Todd D. Burroughs Director - Component/Materials Testing

BAA:baa/nlb

Attachments (pages) Appendix A - Photographs (4)



Revision Log

<u>Rev. #</u> Date <u>Page(s)</u>

0 06/23/06 N/A

Revision(s)

Original report issue.



APPENDIX A

Photographs





Photo No. 1 Shear Test Setup



Photo No. 2 Pull-Out Test Setup





Photo No. 3 Brick 1 Result



Photo No. 4 Brick 2 Result





Photo No. 5 Brick 3 Result



Photo No. 6 Brick 4 Result





Photo No. 7 Brick 5 Result