

LABORATORY REPORT

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FOR: Don Foster,
cc: Jeff Lucas

SUBJECT: Water Vapor Transmission Evaluation

DATE: April 1, 2011
PROJECT: 1103-02 VWT

SAMPLES SUBMITTED:

Sample	Size
(1) red clay brick with a red Masonry Cosmetics stain on the surface	7 1/4" x 2 1/4" x 3 1/2"
(1) red clay brick without stain	

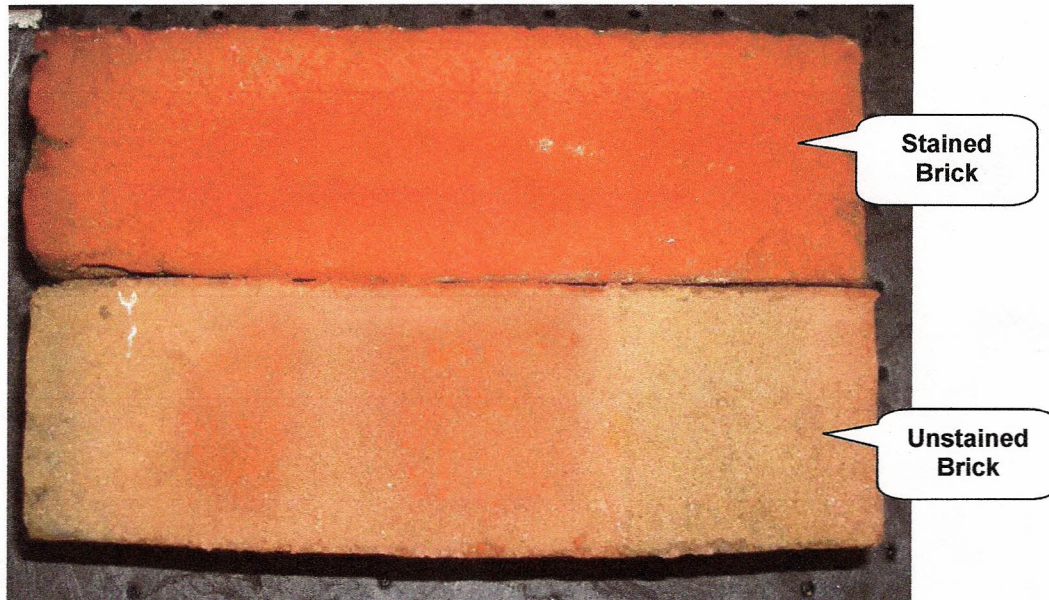
Submitted by: Don Foster

PURPOSE OF TEST:

- To determine the water vapor transmission characteristics of the submitted stained brick compared to the unstained brick.

PHOTOGRAPH:

Submitted Brick



TEST METHODS: Water Vapor Transmission (ASTM E 96 – Water Method - Modified)

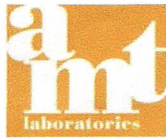
The bricks were cut with a wet masonry saw into appropriate size test specimens. The samples were then rinsed with water under a sink and allowed to dry for at least 24 hours.

The samples were placed on laboratory test cells partially filled with distilled water. The sides of the samples were sealed to the top rim of the test cell so that no water vapor could escape. Cells were then weighed and placed in a room maintained at approximately 73°F (23°C) and 30% relative humidity.

The total weight loss of the individual cells was calculated after the second day and daily thereafter for a total of ten days. Weight loss was calculated as a factor of g/m² per 24 hours.

CALCULATION:

$$WVT = g/m^2/24 \text{ hours}$$



TEST RESULTS: Water Vapor Transmission

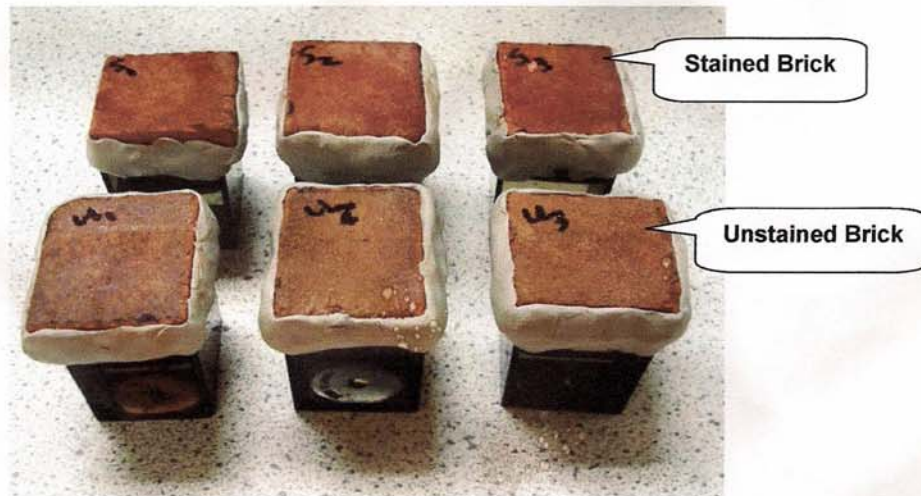
Submitted Brick

Sample	Water Vapor Transmission Rate	Percent Retention
Unstained Brick	11.75 g/m ² /24 hours	---
Stained Brick	12.79 g/m ² /24 hours	>99%

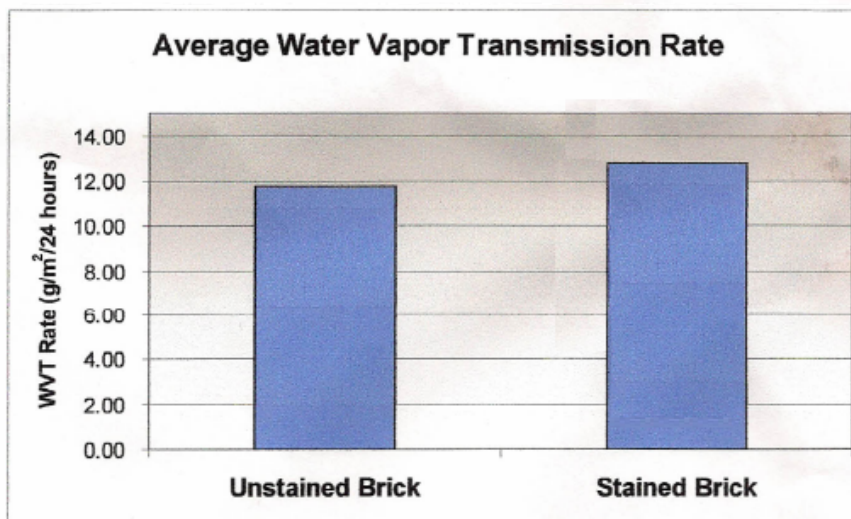
CONCLUSIONS: Water Vapor Transmission

The stained brick had a slightly higher water vapor transmission rate than the unstained brick, indicating that the stain does not inhibit the brick's ability to "breathe".

PHOTOGRAPH: Water Vapor Transmission



GRAPH: Water Vapor Transmission



Courtney A. Murdock

Courtney A. Murdock, CDT
Project Testing Director
CAM/

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF NINETY (90) DAYS AFTER THE ISSUE DATE OF THIS REPORT. IF SAMPLES ARE TO BE RETAINED FOR ADDITIONAL TESTING OR RETURNED TO THE SENDER, PROVIDE WRITTEN INSTRUCTIONS TO THE LABORATORY WITHIN NINETY (90) DAYS OF THE ISSUE DATE OF THIS REPORT.