



LABORATORY REPORT

AMT Laboratories • 3741 Greenway Circle • Lawrence, Kansas 66046 • (888) 376-3600

FOR: Don Foster, Masonry Cosmetics, Inc.
cc: Jeff Lucas

SUBJECT: Masonry Cosmetics, Inc.
South Bend, IN
Water Vapor Transmission Evaluation

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

SAMPLES SUBMITTED:

Sample	Size
(1) red clay brick with a red Masonry Cosmetics stain on the surface	7 ¼" x 2 ¼" x 3 ½"
(1) red clay brick without stain	

Submitted by: Don Foster
Masonry Cosmetics, Inc.
1625 Miami Street
South Bend, IN 46613

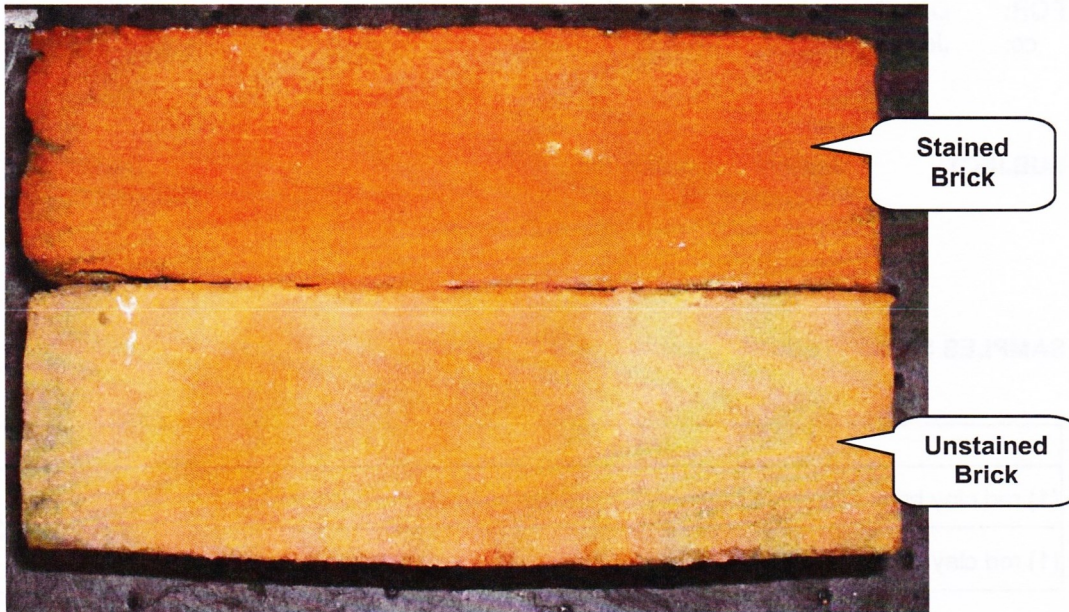
PURPOSE OF TEST:

- 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/m^2 per 24 hours.

CALCULATION:

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



TEST RESULTS: Water Vapor Transmission

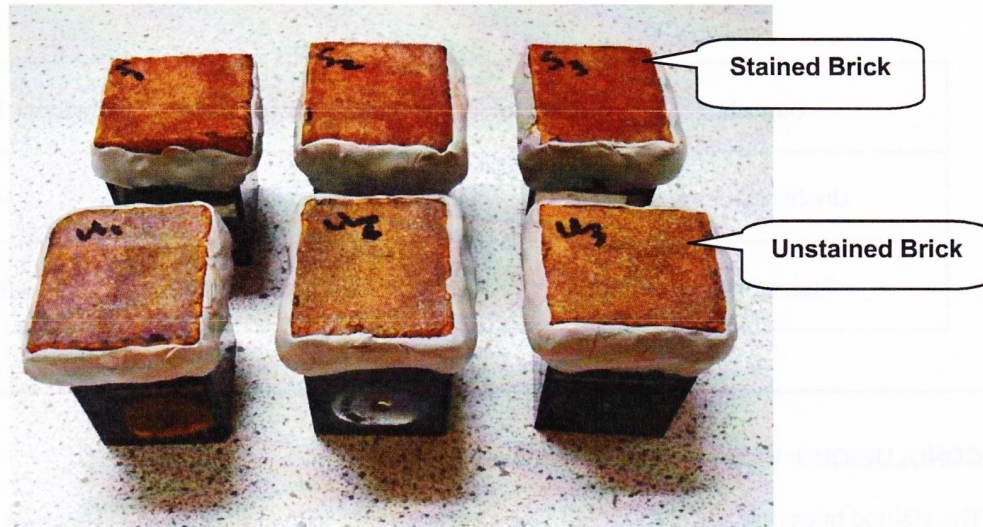
Submitted Brick

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%

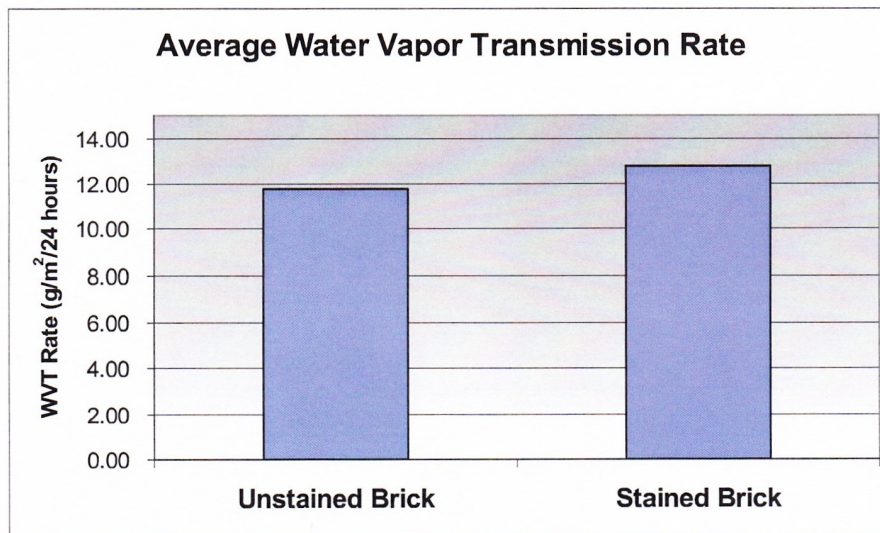
CONCLUSIONS: Water Vapor Transmission

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.



Masonry Cosmetics Evaluation
South Bend, IN

0508-14 QUV
September 26, 2005
Page 1 of 3

FOR: Jeff Lucas
cc: Brian Koenings
John Bourne

SUBJECT: Masonry Cosmetics
South Bend, IN

DATE: September 26, 2005
PROJECT: 0508-14 QUV

SAMPLES SUBMITTED: (5) samples of clay brick with a red "Masonry Cosmetics" stain on the surface

Size: 7 1/2" x 2 1/4" x 3 3/4"

Submitted by: Jeff Lucas

PURPOSE OF TEST:

- To determine if exposure to weathering will have any adverse effects on the red stain on the surface of the submitted clay brick.

TEST METHODS:

Artificial Weathering (TEC050-1 Standard Operating Procedure)

The faces of three of the clay brick samples were cut to be approximately 1/2 cm thick. The three cut samples were exposed to alternate cycles of ultraviolet light and 60°C temperatures and cooler, moist, and dark conditions at 20-30°C. Temperature, humidity, and UV cycling are intended to replicate external weathering conditions, but are accelerated.

After 500 hours, the samples were then taken out of the QUV Tester and visually evaluated, comparing the surfaces that were exposed to artificial weathering to the surfaces that were not exposed.

Because a portion of each sample was covered during QUV exposure, it was also possible to compare this surface to the exposed area.



Masonry Stabilization Services Corporation
Materials Testing Laboratory

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PHOTOGRAPHS:

Submitted Samples After Artificial Weathering



The bottom portion of the samples was covered during artificial weathering, and therefore not exposed.





TEST RESULTS:

Based on visual evaluation of the samples, there does not appear to be any change in appearance to the surface of the clay brick samples after 500 hours exposure to artificial weathering. As the photograph on the previous page shows, the portion of the samples that was exposed to weathering did not appear any different than the portion of the samples that was not exposed (due to the size of the samples, the bottom 1 1/2" of each sample was covered during weathering).

There is a natural color variation in the red stain that occurs in all of the submitted samples; some portions of each sample are darker red than other portions of the sample. This natural variation was not caused by artificial weathering; the samples were submitted with this variation.

Courtney A. Murdock
Project Testing Coordinator

CAM/

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Recommendations made within this report are based on laboratory test applications and observations. Final determination of the suitability of a product and/or procedure should be made only after thorough job testing on actual surfaces.



610 WILLOW STREET
HARRISBURG, PENNSYLVANIA 17101
PHONE: (717)238-9331

Laboratory Test No. 41689

Date October 24, 2005

TO *Masonry Cosmetics, Inc., 918 Oliver Plow Ct. - Southbend IN 46601 Attn: Mr. Brad Clear*

The following is a report of Tests on Building Brick conducted in accordance with ASTM Designation C67-03 "Standard Method of Sampling and Testing Brick"

Sample Received July 22, 2005 From _____ Test Completed October 24, 2005
Date Plant Date

Brick Identification

4 Brick

PROCEDURE OF TEST

Four (4) specimens of Brick identified as shown were subjected to freezing and thawing tests as set forth in ASTM Method of Sampling and Testing Brick (C67-03). These specimens were subjected to fifty (50) complete freezing and thawing cycles during the period of test.

The freezing chamber was controlled at all times so that the temperatures of the air in the freezing chamber did not exceed 16°F (-9°C) one hour after introducing the maximum charge of brick, initially at a temperature not exceeding 90°F. The thawing tank was of such dimension that its water temperature was always controlled at 75°F ± 10°F during thaw cycles. The drying room was maintained at a temperature of 75° ± 15°F with a relative humidity between 30% and 70% and was free from drafts.

RESULTS OF TEST

Units

1
2
3
4

Units 1, 2, 3, and 4 showed no breakage, cracking or spalling throughout the entire fifty (50) cycles.
The individual units and their loss in weight at the conclusion of fifty (50) cycles is as follows:

<u>Unit No.</u>	<u>Percent Weight Loss</u>
1	0.020
2	0.020
3	0.010
4	0.011
Avg.	<u>0.015</u>

*These units comply with the requirements specified in A.S.T.M. Specification Requirements for Freezing and Thawing. The units showed no observable difference in applied finish when viewed from a distance of ten (10) feet after fifty (50) cycles.

*A.S.T.M. C67 calls for an average of five (5) units.

Respectfully submitted,
McCREATH LABORATORIES, INC.



Did you know Masonry Cosmetics Inc. is the

#1 Seller of American-Manufactured Do-It-Yourself Stain Kits?



We offer something for the Consumer,

Our Masonry Mix Colorant Kit was developed for the one-time job use in mind. Do you want to change the look of an outdated fireplace?



Brickmatchkit.com



Brickmanstainkit.com

Something for the Mason or Contractor,

This "Business in a Briefcase" is designed for multiple uses to change the color of many types of masonry surfaces. Comes with our famous 5 years of access to our 3-Way "Every-Step-of-the-Way" Customer Support Service.



And Something for the Masonry Staining Specialist.

This commercial-sized kit is for our exclusive Certified Contractors. Don't forget our products can also be used on natural and manufactured stone.



Masonrycosmetics.com



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Brick Staining 101

Think of brick staining as a tool or option to use anytime you need! Like anything else, it is always good to plan ahead. As soon as you find out that you do not have a good match, start the process to include staining. The earlier you start, the more options you have. Starting late will limit your choices of, what we call, donor brick (the best base brick that we can add color to).

Before we talk more about brick staining, let's go over the

3 Rules of Brick Matching...

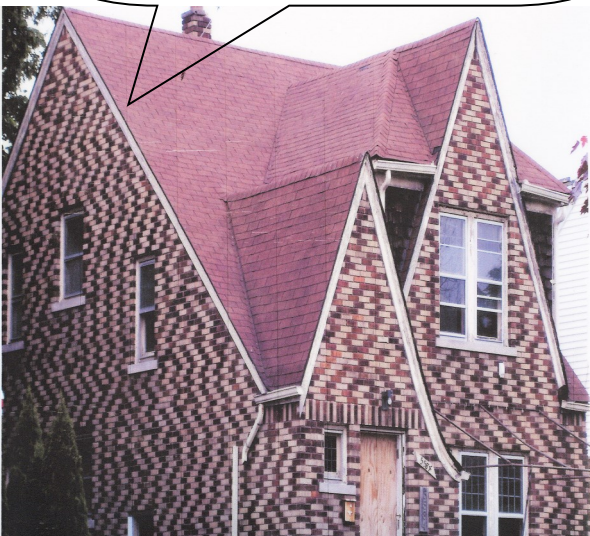
Rule # 1 - FINDING THE BRICK

Are the brick still made today? If yes, is it still made at the same plant that the original brick came from? Manufacturers from time to time have to change which plant they make brick at although they still call it the same name, type and size. This, at times can cause a change in color. Just be sure to get a current sample first. There are many variables brick plants have to deal with. Anyone of these variables can effect the color from run to run. Again, getting a current sample is important. *Should the run still be off in color, We Can Help!*

If the brick are not made anymore—Ask your local distributor to do a search. The actual brick could be sitting somewhere!

Don't let this happen to you!

This is an example of what a bad pre-blend can look like. (We never touched this building!)



Here is a sample of poor planning because the wrong color and texture was chosen. See our sample test panel in blue tape below.

We can color correct a small percentage of brick all the way up to 100%. We can give you all of the old Zinc and Ochre colors that used to come out of the old Bee Hive kilns or when the brick plants used to fire with solid fuels. We can also give you some of the old flashing marks such as cross sets and hearts.



Rule # 2 - BLENDING

First, look at other manufacturers that might have a brick that is close or can possibly work up a combination of different brick to blend together. Blending the brick to achieve the right range is good as long as you find the right colors to blend.

Two mistakes that often happen are that the size of the brick vary and the overall percentage and placement of colors do not match up with the existing wall. First, check that the face height, length and bed depth of the brick are compatible in size to each other. Percentage of color and placement is also important. For example, in a 3 or 4 way color blend, maybe 2 or 3 of the colors are very close but the 3rd or 4th are off - you will still have a bad match. *The right percentage mix of colors and how they are spaced in the wall is the key to matching.* As always, Masonry Cosmetics Inc. can add color to whatever blend to get a great match!

There are several brick manufacturers that are willing and able to make special runs of brick to try and match your building but sometimes they don't succeed. If they don't get close enough and you want it closer, *we can add the final touch!* We partner with brick manufacturers all of the time.

Brick Staining 101

When the first two rules are exhausted we can pursue...

Rule # 3 - STAINING

Find a donor brick matching the texture and size as close as possible. Next pick the closest color available. The less brick we have to correct, the less it will cost to change it. We never use the word "perfect" but we get really close depending on the donor brick selected and if the mortar is matched. For example, in a wall with modular sized brick, the mortar represents 18 to 20% of the total wall which has a major effect on the brick color that it borders and the overall color of the wall.

Our greatest advantage is "placement". We can choose where the colors go. We can have the same color touch, not touch, stair step....actually do what the wall is doing.



BEFORE



DURING

To the left is a job in progress at a school. As we color correct the sample the architect and owner can direct the amount of change in the panel. They can control the color range, details and also the cost. Our process is very flexible, does not seal the brick, keeping it breathable. We also do not leave a sheen or film. Therefore, we can apply our process again over the top if needed, adjusting the color at anytime.

This is a perfect example of a blend that would be difficult for a manufacturer to repeat... No Problem for Masonry Cosmetics!

