



Pallet Tag Program Laboratory Report

County Materials Corporation Janesville, WI



Project No. 2101-04 PTP

Prepared For:



Prepared By:

J. Lucas Comadoll

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Project Testing Technician
AMT Laboratories

March 2021



LABORATORY REPORT

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

FOR: Tom Hale, County Materials Corporation
cc: Jim Lucas
Ken Rathbun, PROSOCO, Inc.
Jake Boyer, PROSOCO, Inc.
Al Morris, PROSOCO, Inc.

SUBJECT: County Materials Corporation
Janesville, WI
Pallet Tag Evaluation

DATE: March 22, 2021
PROJECT: 2101-04 PTP

SAMPLES SUBMITTED:

Type	Name	Color	Size
(3) CMU	"Burnished"	Gray	15.625" x 7.625" x 3.5"
(6) Concrete Brick	"Heritage"	Gray	11.5" x 3.5" x 3.625"
(4) CMU	"Splitface"	Red	15.625" x 7.625" x 8"

SUBMITTED BY: Tom Hale
National Sales Manager
County Materials Corporation
1104 East LT Townline Road
Janesville, WI 53546

PURPOSE OF TEST:

- To evaluate the color and sheen enhancement characteristics of specific PROSOCO, Inc. products on the submitted samples.
- To determine the most appropriate PROSOCO, Inc. water repellent for the submitted samples.
- To determine the effectiveness of appropriate PROSOCO, Inc. products in preventing urine staining on the submitted samples.

PRODUCTS EVALUATED:

Color and Sheen Enhancement/Water Repellency/Stain Resistance	Dilution:
PROSOCO® SLX100® Water & Oil Repellent	N/A*
Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP)	N/A*
Sure Klean® Weather Seal Gloss 'N Guard	N/A*
Sure Klean® Weather Seal Gloss 'N Guard WB	N/A*
T2646 STMP	N/A*
T2633 Paver Enhancer VOC	N/A*

***NOTE: Per the product data sheet instructions, only use the product in concentrate. Do not dilute.**

Worth noting, while not all of these products are intended to impart stain resistance, all of these products repel water (the primary component in urine).

SAMPLE PREPARATION: Treatment Application

Prior to treatment application, the submitted “Burnished” CMU and “Heritage” concrete brick samples were cleaned with Sure Klean® Light Duty Concrete Cleaner diluted with three parts water and the submitted “Splitface” CMU samples were cleaned with Sure Klean® Custom Masonry Cleaner diluted with six parts water in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. After the samples had dried for at least 24 hours, Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP), Sure Klean® Weather Seal Gloss ‘N Guard, Sure Klean® Weather Seal Gloss ‘N Guard WB, PROSOCO® SLX100® Water & Oil Repellent, T2646 STMP, and T2633 Paver Enhancer VOC were applied in a brushing application in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. Two applications of Sure Klean® Weather Seal Gloss ‘N Guard and Sure Klean® Weather Seal Gloss ‘N Guard WB were conducted to ensure uniform appearance. The treatments were allowed to cure for at least 72 hours prior to testing.

TEST METHODS: Color and Sheen Enhancement

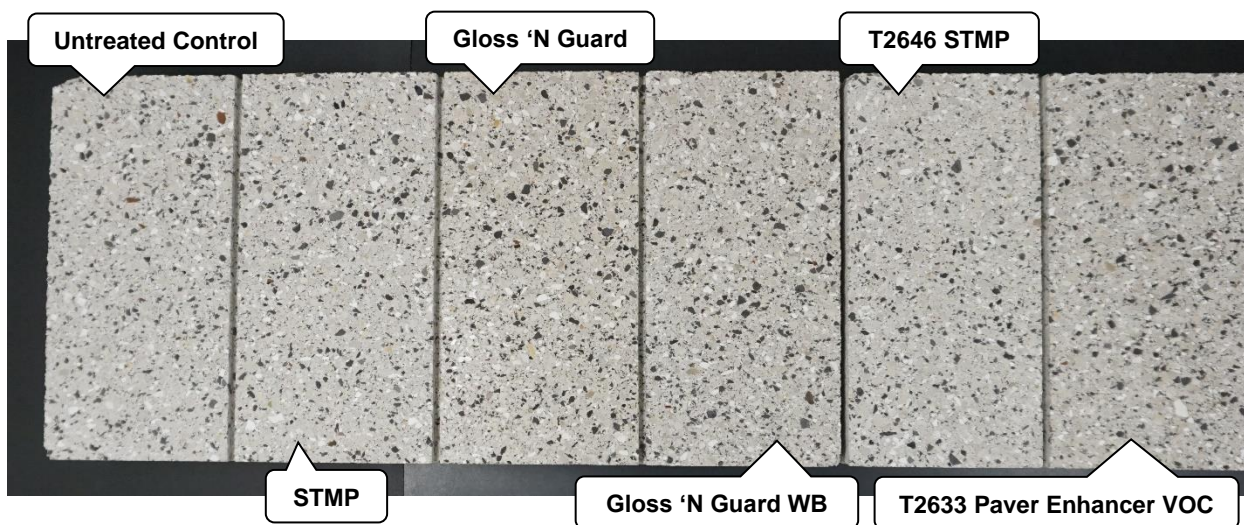
After 72 hours, a visual evaluation was made comparing the untreated control surface to the treated surface to determine the effectiveness of the evaluated products in providing color and/or sheen enhancement to the submitted samples.

The following scale was used for reporting results of both categories:
0 – No enhancement compared to untreated control
1 – Slight enhancement compared to untreated control
2 – Moderate enhancement compared to untreated control
3 – Significant enhancement compared to untreated control

TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement

"Burnished" CMU	Color Enhancement	Sheen Enhancement
Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP)	0	0
Sure Klean® Weather Seal Gloss 'N Guard	2	1
Sure Klean® Weather Seal Gloss 'N Guard WB	1	2
T2646 STMP	0	0
T2633 Paver Enhancer VOC	2	0

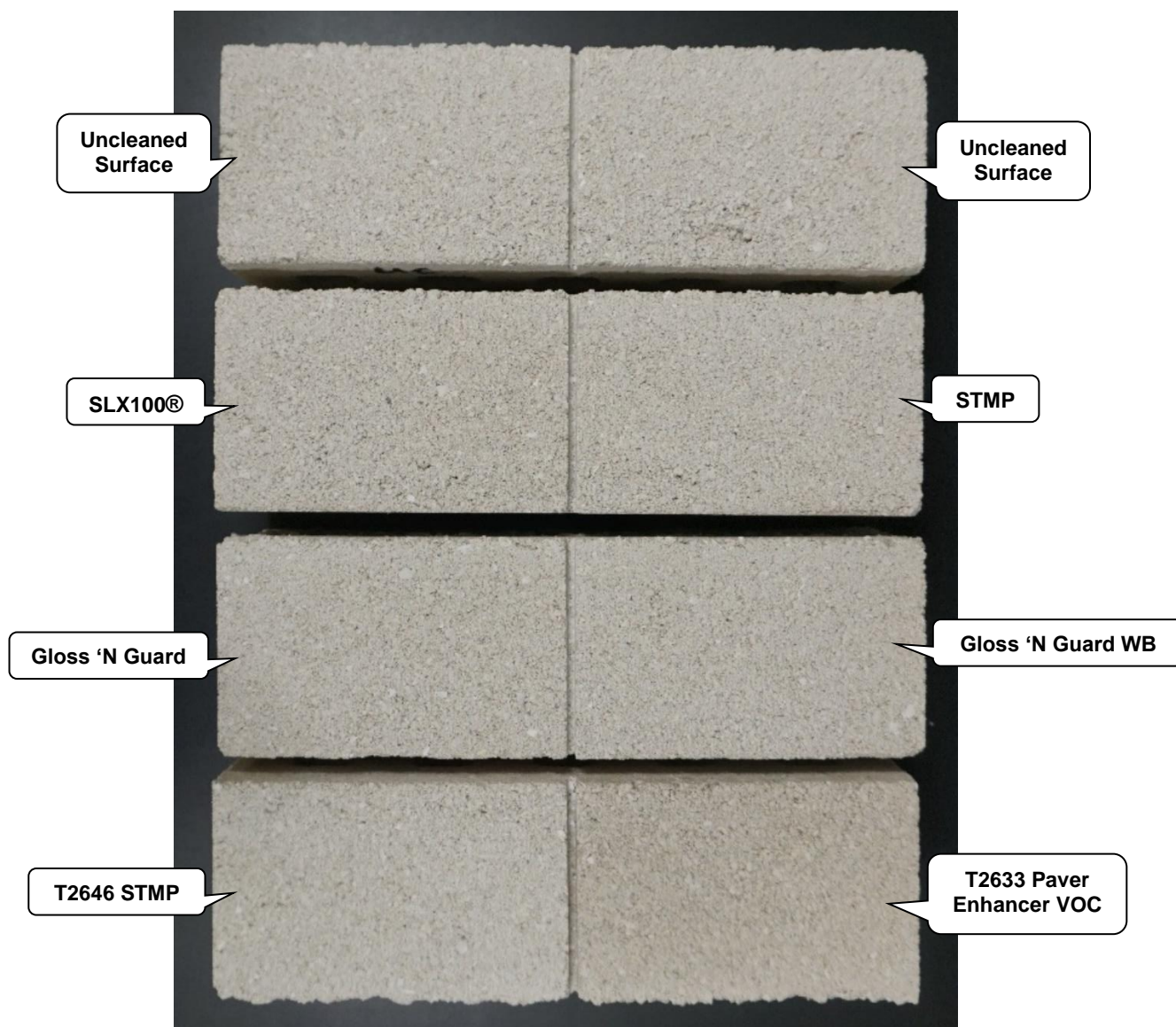
"Burnished" CMU After Application



TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement

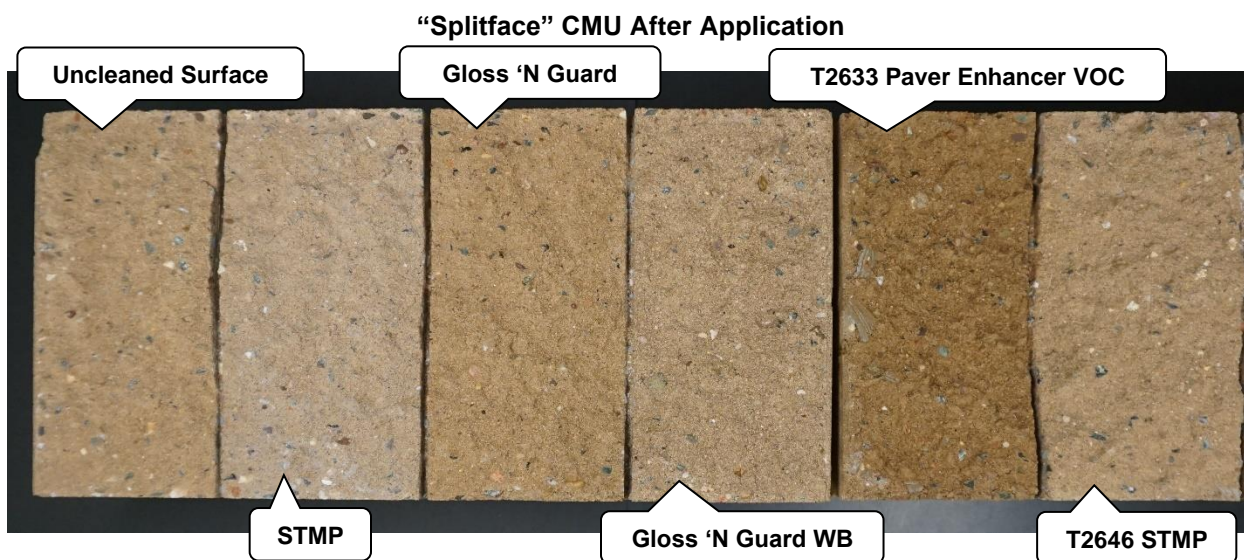
"Heritage" Concrete Brick	Color Enhancement	Sheen Enhancement
PROSOCO® SLX100® Water & Oil Repellent	0	0
Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP)	0	0
Sure Klean® Weather Seal Gloss 'N Guard	0	0
Sure Klean® Weather Seal Gloss 'N Guard WB	0	1
T2646 STMP	0	0
T2633 Paver Enhancer VOC	2	0

"Heritage" Concrete Brick After Application



TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement

"Splitface" CMU	Color Enhancement	Sheen Enhancement
Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP)	1*	0
Sure Klean® Weather Seal Gloss 'N Guard	1	0
Sure Klean® Weather Seal Gloss 'N Guard WB	0	1
T2646 STMP	0	0
T2633 Paver Enhancer VOC	3	0



*NOTE: Application of Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP) on the "Splitface" CMU resulted in a haze forming on the surface of the sample. Due to this result, the cleaning of the sample and application of the treatment were repeated and the same result was observed. For these reasons, Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP) was not evaluated further on the "Splitface" CMU.

CONCLUSIONS – Color and Sheen Enhancement

The treatments evaluated provided a range of color enhancement results, from no change in appearance to a significant change depending on the treatment and sample. Color enhancement was often observed when the samples were treated with Sure Klean® Weather Seal Gloss 'N Guard and T2633 Paver Enhancer VOC. Sheen enhancement was often observed when the samples were treated with Sure Klean® Weather Seal Gloss 'N Guard WB.

Enhancement levels may vary by substrate color, lighting, orientation application method, and other variables. Always test in the field to confirm intended results.

Apply all products in accordance with the manufacturer's recommendations provided on container labels and product data sheets. On-site testing should be conducted to determine the most appropriate treatment and procedures for a particular project. See product literature for additional application and product information.

RECOMMENDATIONS: Color and Sheen Enhancement

Recommendations for color and sheen enhancement for each sample submitted by County Materials Corporation, Janesville, WI are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Color and Sheen Enhancement
"Burnished" CMU	Please refer to pages 4-8 of the report for individual recommendations based on the desired result.
"Heritage" Concrete Brick	
"Splitface" CMU	

Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. On-site testing should be conducted to determine the most appropriate treatment and procedures for a particular project. See product literature for additional application and product information.

TEST METHODS: Protective Water Repellents

Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes

The water absorption tube test simulating wind driven rain conditions was performed. This test simulates 60 mile per hour wind driven rain conditions for a period of 20 minutes.

Water Absorption Tube Test of “Heritage” Concrete Brick



TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes

“Burnished” CMU	
Untreated Control	60 mph
Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP)	60 mph
Sure Klean® Weather Seal Gloss ‘N Guard	60 mph
Sure Klean® Weather Seal Gloss ‘N Guard WB	60 mph
T2646 STMP	60 mph
T2633 Paver Enhancer VOC	60 mph

TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents (cont.)

Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes

"Heritage" Concrete Brick	
Untreated Control	<40 mph
PROSOCO® SLX100® Water & Oil Repellent	60 mph
Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP)	<40 mph
Sure Klean® Weather Seal Gloss 'N Guard	60 mph
Sure Klean® Weather Seal Gloss 'N Guard WB	60 mph
T2646 STMP	60 mph
T2633 Paver Enhancer VOC	60 mph

"Splitface" CMU	
Untreated Control	<40 mph
Sure Klean® Weather Seal Gloss 'N Guard	60 mph
Sure Klean® Weather Seal Gloss 'N Guard WB	60 mph
T2646 STMP	60 mph
T2633 Paver Enhancer VOC	60 mph

CONCLUSIONS: Protective Water Repellents

Based on the laboratory evaluations, all of the treatments provided good water repellent protection to the submitted samples except Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP) applied to the “Heritage” Concrete Brick.

RECOMMENDATIONS: Protective Water Repellents

Recommendations for water repellency for each sample submitted by County Materials Corporation, Janesville, WI are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Water Repellency
“Burnished” CMU	Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP) OR Sure Klean® Weather Seal Gloss ‘N Guard OR Sure Klean® Weather Seal Gloss ‘N Guard WB OR T2646 STMP OR T2633 Paver Enhancer VOC
“Heritage” Concrete Brick	PROSOCO® SLX100® Water & Oil Repellent OR Sure Klean® Weather Seal Gloss ‘N Guard OR Sure Klean® Weather Seal Gloss ‘N Guard WB OR T2646 STMP OR T2633 Paver Enhancer VOC
“Splitface” CMU	Sure Klean® Weather Seal Gloss ‘N Guard OR Sure Klean® Weather Seal Gloss ‘N Guard WB OR T2646 STMP OR T2633 Paver Enhancer VOC

Apply all products in accordance with the manufacturer’s recommendation provided on container labels and product data sheets. Because the severity of graffiti varies from location to location, on-site testing should be conducted to determine the most appropriate graffiti control product and procedure for a particular project.

TEST METHODS: Surface Beading Evaluation

Products Evaluated for Stain Testing:

DYNA-TEK Industries (DTI) Surine™ Negative Control

Temperature:

ambient (~70°F)

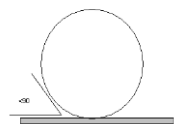
The stain agent was applied to the test areas by using a dropper creating a bead 0.5 – 1.0 cm in diameter. The beading properties of the liquid was visually evaluated within two minutes after application. The results are reported as a rating based on the angle of contact between the base of the droplet and the substrate. A rating of “1 or 2” indicated the smallest angle of contact (<90°) which correlates to “above average” repellency. A rating of “3 or 4” indicates “average” repellency. A rating of “5 or greater” indicated that the liquid quickly absorbed into the substrate and correlates to “below average” repellency.

NOTE: Typically, stain testing involves food and oil staining agents. While not all of these products are intended to impart stain resistance, all of these products repel water (the primary component in urine).

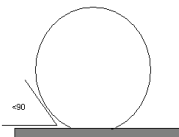
TEST METHODS: Surface Beading Evaluation (cont.)

Rating System (1-5)

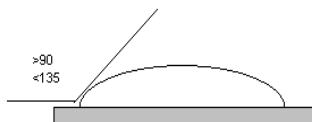
1. No wetting of contact area (no darkening); angle less than 90°



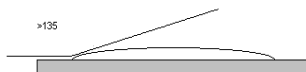
2. Wetting contained to the contact area (slight darkening); angle is less than 90°



3. Wetting contained to the contact area (slight darkening); angle is greater than 90°, but less than 135°.



4. Wetting beyond the contact area (darkening); angle is greater than 135°



5. Wetting beyond the contact area (darkening); angle is flat.

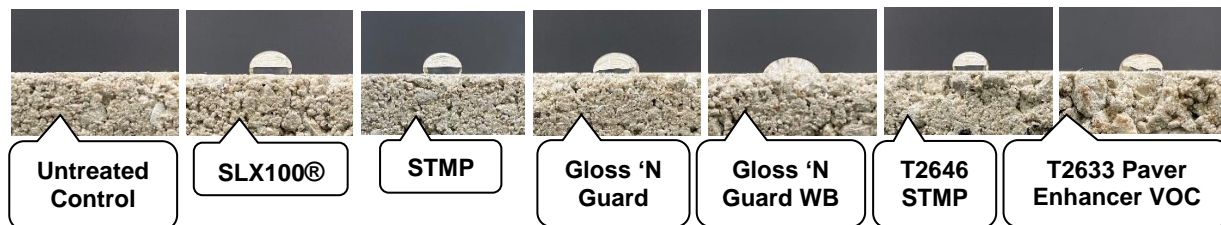


TEST RESULTS AND PHOTOGRAPHS: Surface Beading Evaluation

DTI Surine™ Negative Control			
	“Burnished” CMU	“Heritage” Concrete Brick	“Splitface” CMU
Untreated Control	4	5	4
SLX100®	N/A*	2	N/A*
STMP	3	2	N/A
Gloss ‘N Guard	3	3	3
Gloss ‘N Guard WB	3	3	3
T2646 STMP	2	2	3
T2633 Paver Enhancer VOC	3	3	3

*N/A – application of PROSOCO® SLX100® Water & Oil Repellent is not recommended on Architectural Concrete Block.

“Heritage” Concrete Brick During Surface Beading Evaluation



TEST METHODS: Stain Resistance Evaluation

The soiling agent was allowed to dwell on the treated and untreated substrates for times of 24 hours, 4 hours, 1 hour, and 10 minutes. The test areas were then cleaned with Enviro Klean® 2010 All Surface Cleaner diluted with ten parts water and scrubbed under a stream of running water. The samples were allowed to dry for 24 hours. Evaluation consisted of a visual examination of the tested areas to determine the percentage of staining removal.

NOTE: Due to 100% stain removal being achieved on upon initial testing, a second stain resistance test was conducted. The second stain resistance test involved 1 mL of DTI Surine™ Negative Control being applied to the surface of each sample every 24 hours for 72 hours (three applications of urine in total). The test areas were then cleaned and evaluated as outlined above.

TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation

% Removal

DTI Surine™ Negative Control Applied to “Burnished” CMU						
	Untreated Control	STMP	Gloss ‘N Guard	Gloss ‘N Guard WB	T2646 STMP	T2633 Paver Enhancer VOC
72 hour	100%	100%	100%	100%	100%	100%
24 hour	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%

% Removal

DTI Surine™ Negative Control Applied to “Heritage” Concrete Brick							
	Untreated Control	SLX100®	STMP	Gloss ‘N Guard	Gloss ‘N Guard WB	T2646 STMP	T2633 Paver Enhancer VOC
72 hour	100%	100%	100%	100%	80%	90%	100%
24 hour	100%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%

% Removal

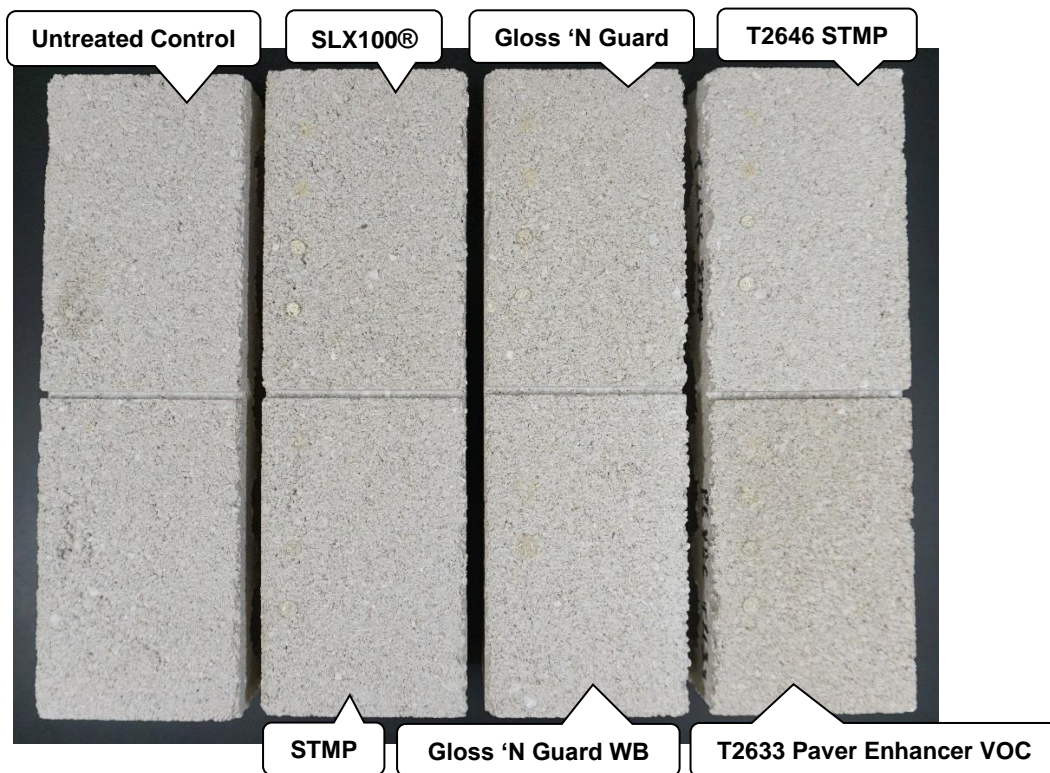
DTI Surine™ Negative Control Applied to “Splitface” CMU					
	Untreated Control	Gloss ‘N Guard	Gloss ‘N Guard WB	T2646 STMP	T2633 Paver Enhancer VOC
72 hour	100%	100%	100%	100%	100%
24 hour	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%

% Removal of stain following maintenance cleaning.

* Indicates etching of surface treatment due to the acidic nature of the staining agent.

TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation (cont.)

“Heritage” Concrete Brick With Stains

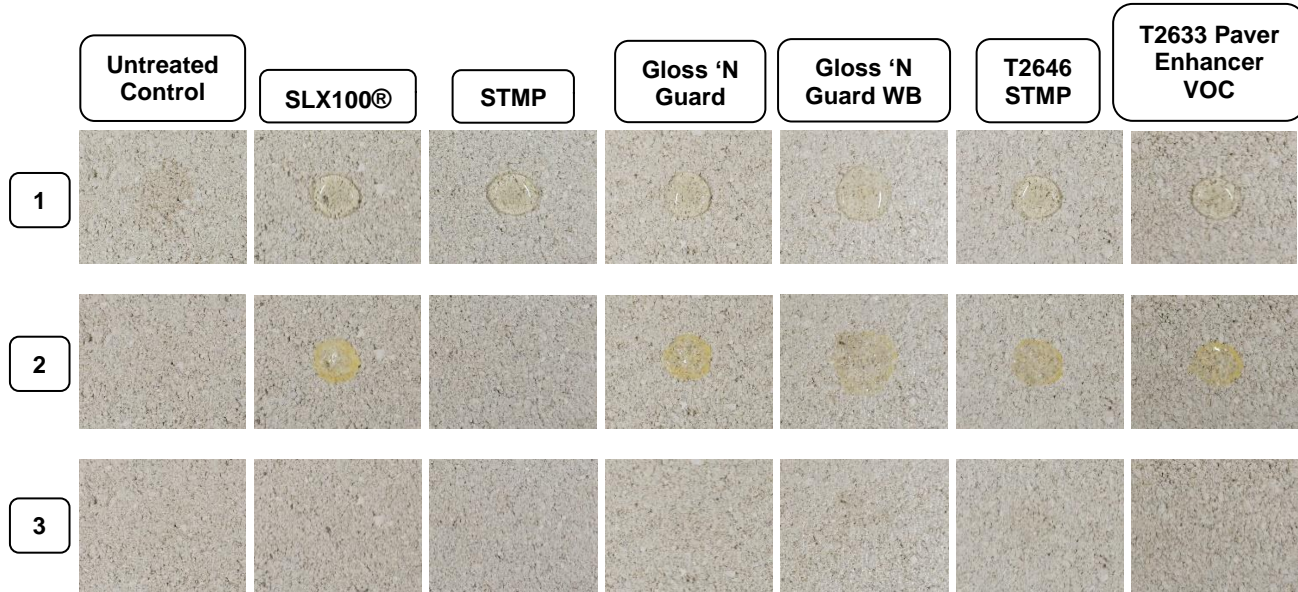


“Heritage” Concrete Brick After Stain Testing



TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation (cont.)

“Heritage” Concrete Brick 72 Hour Stain Testing



KEY
 1 = Initial Stain Application
 2 = Appearance After 72 Hours
 3 = Appearance After Cleaning

CONCLUSIONS: Surface Beading and Stain Resistance

In the surface beading evaluation, PROSOCO® SLX100® Water & Oil Repellent, Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP), and T2646 STMP had the smallest angles of contact with the staining agent. This small angle correlates to “above average” repellency. However, all the treatments improved the surface beading of each sample compared to the untreated control.

In the initial stain resistance test conducted, all of the tested areas proved effective at repelling the applied stain on the submitted samples, even the untreated control.

Due to these initial results, a second stain resistance test was conducted that allowed the urine to dwell on each substrate for 72 hours.

Based on the 72 hour stain testing, it is clear that the majority of the treatments kept the staining agent concentrated on the surface instead of allowing it to penetrate into the sample.

Worth noting, the stain resistance testing consists of orienting the samples horizontally to allow the staining agent to dwell on the surfaces for specified times. Because the submitted samples will be oriented vertically upon installation, this testing represents a “worst case scenario” and it is likely that the staining agent will remain on the surface for a much shorter time in the installed orientation.

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.

RECOMMENDATIONS: Stain Resistance

Recommendations for stain resistance for each sample submitted by County Materials Corporation, Janesville, WI are provided in the chart below. Recommendations are based on the treatments that proved most effective for providing stain repellency on the submitted samples.

Sample	Stain Resistance (Urine Stain Resistance)
"Burnished" CMU	<p style="text-align: center;"><u>(Urine) Stain Repellents</u></p> <p>Sure Klean® Weather Seal Stone, Tile & Masonry Protector (STMP) OR Sure Klean® Weather Seal Gloss 'N Guard OR Sure Klean® Weather Seal Gloss 'N Guard WB OR T2646 STMP OR T2633 Paver Enhancer VOC</p> <p style="text-align: center;"><u>Maintenance Cleaner</u></p> <p>Enviro Klean® 2010 All Surface Cleaner (1:10)</p>
"Heritage" Concrete Brick	<p style="text-align: center;"><u>(Urine) Stain Repellents</u></p> <p>PROSOCO® SLX100® Water & Oil Repellent OR Sure Klean® Weather Seal Gloss 'N Guard OR T2633 Paver Enhancer VOC</p> <p style="text-align: center;"><u>Maintenance Cleaner</u></p> <p>Enviro Klean® 2010 All Surface Cleaner (1:10)</p>

The ability of a stain repellent treatment to prevent staining is affected by a variety of factors. Therefore, on-site testing should be carried out for all installations with the recommended systems to ensure job site workmanship yields equivalent results.

Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. On-site testing should be conducted to determine the most appropriate stain repellent product and procedures for a particular project. See product literature for additional application and product information.

RECOMMENDATIONS: Stain Resistance (cont.)

Recommendations for stain resistance for each sample submitted by County Materials Corporation, Janesville, WI are provided in the chart below. Recommendations are based on the treatments that proved most effective for providing stain repellency on the submitted samples.

Sample	Stain Resistance (Urine Stain Resistance)
"Splitface" CMU	<p><u>(Urine) Stain Repellents</u> Sure Klean® Weather Seal Gloss 'N Guard OR Sure Klean® Weather Seal Gloss 'N Guard WB OR T2646 STMP OR T2633 Paver Enhancer VOC</p> <p><u>Maintenance Cleaner</u> Enviro Klean® 2010 All Surface Cleaner (1:10)</p>

The ability of a stain repellent treatment to prevent staining is affected by a variety of factors. Therefore, on-site testing should be carried out for all installations with the recommended systems to ensure job site workmanship yields equivalent results.

Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. On-site testing should be conducted to determine the most appropriate stain repellent product and procedures for a particular project. See product literature for additional application and product information.



J. Lucas Comadoll
QC/Project Testing Technician

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF THIRTY (30) 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 THIRTY (30) DAYS OF THE ISSUE DATE OF THIS REPORT.

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.