

Pallet Tag Program Laboratory Report

Interstate Brick West Jordan, UT



Project No. 2209-04 PTP

**Prepared For:** 



## Prepared By:

J. Succes Conadoll

J. Lucas Comadoll Project Testing Technician AMT Laboratories

October 2022



# LABORATORY REPORT

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- FOR: Steven Judd, Interstate Brick cc: Matt Herz, PROSOCO, Inc. Jake Boyer, PROSOCO, Inc. Al Morris, PROSOCO, Inc.
- SUBJECT: Interstate Brick West Jordan, UT Pallet Tag Evaluation

DATE: October 14, 2022 PROJECT: 2209-04 PTP

#### SAMPLES SUBMITTED: 3 types of clay brick

Sample	Name	Color	Size
(8) Brick	"Black Ice" Coated Brick	Dark Brown	7.5" x 2.25"
(8) Brick	"Black Opal" Coated Brick	Dark Gray	7.5" x 2.25"
(8) Brick	"Obsidian" Coated Brick	Dark Gray	7.5" x 2.25"

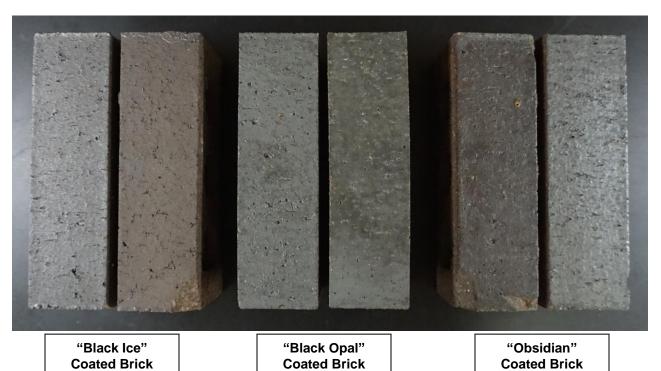
SUBMITTED BY: Olivia Coronado Interstate Brick 9780 South 5200 West West Jordan, UT 84081



#### PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted samples.
- To determine the most appropriate PROSOCO, Inc. water repellent(s) for the submitted samples.
- To determine the effectiveness of appropriate PROSOCO, Inc. products in preventing the penetration of, and simplifying the removal of, graffiti staining on the submitted samples.

## NOTE: Each set of submitted samples exhibited a variation in color and sheen upon arrival prior to any testing (as shown in the photograph below).



#### Variation in Color and Sheen Present as Submitted



#### **PRODUCTS EVALUATED:**

New Construction Cleaning	Dilution:
Sure Klean® Vana Trol®	1:6, 1:8
Sure Klean® 600	1:6, 1:8

Water Repellency	Dilution:
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control 9	N/A*
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control VOC 15	N/A*
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control WB 15	N/A*
Sure Klean® Weather Seal Siloxane PD	N/A*
Sure Klean® Weather Seal Siloxane WB Concentrate	1:9, 1:14

Graffiti Resistance	Dilution:
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control 9	N/A*
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control VOC 15	N/A*
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control WB 15	N/A*

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



#### **TEST METHODS: New Construction Cleaning**

Sure Klean® Vana Trol® and Sure Klean® 600 were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the uncleaned surface of the submitted clay brick.

<u>Surface Finish Removal</u> is the visual examination of the sample comparing the surface finish of the uncleaned surface to the surface finish cleaned with selected product(s) at given dilutions.

<u>Substrate Deterioration</u> is the visual examination of the sample comparing the uncleaned surface to surfaces cleaned with selected product(s) at given dilutions looking for any potential erosion/digestion of the sample.

<u>Color Change</u> is the visual examination comparing the color of the uncleaned surface to the color of surfaces cleaned with selected products at given dilutions.

**<u>Staining</u>** is the visual examination for changes that are the result of a chemical reaction that leaves a staining precipitate.

The following is the scale used for reporting results of both categories:

- 0 No change compared to uncleaned surface
- 1 Slight change compared to uncleaned surface
- 2 Moderate change compared to uncleaned surface
- 3 **Significant change** compared to uncleaned surface

#### **Cleaning Procedure:**

- 1. Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Data Sheet.
- 3. Reapply cleaning solution; do not let cleaner dry into sample.
- 4. Rinse thoroughly with plenty of fresh water.\*
- 5. Allow the sample to dry for at least 18 hours and visually examine.
- 6. Compare the uncleaned surfaces to the cleaned surfaces for the best match.

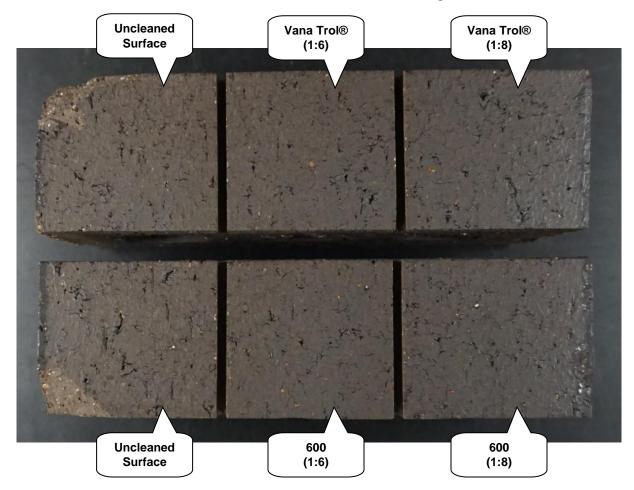
\***Rinsing Equipment –** Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 40 degree fan spray tip was used for rinsing.



#### **TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning**

Name: "Black Ice" Coated Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
600	1:6	0	0	0	0
600	1:8	0	0	0	0

## "Black Ice" Coated Brick After Cleaning

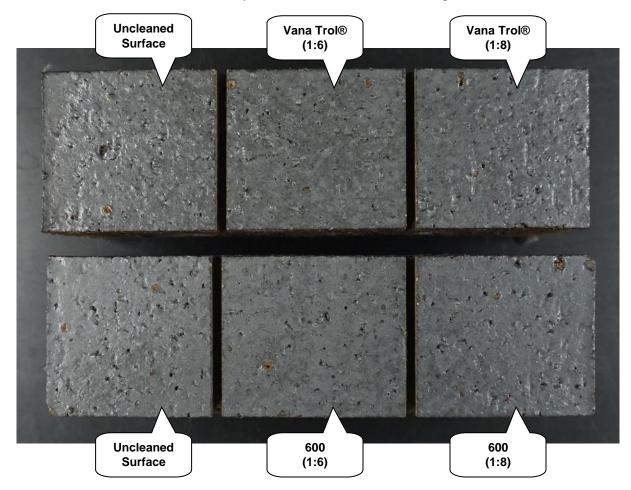




#### TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning (cont.)

Name: "Black Opal" Coated Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
600	1:6	0	0	0	0
600	1:8	0	0	0	0

#### "Black Opal" Coated Brick After Cleaning

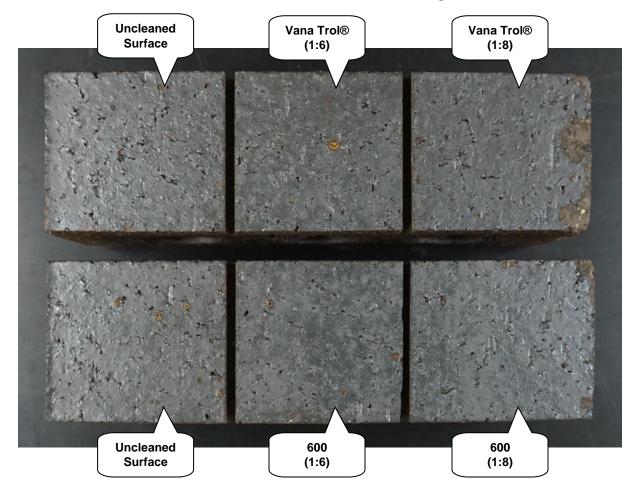




#### TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning (cont.)

Name: "Obsidian" Coated Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
600	1:6	0	0	0	0
600	1:8	0	0	0	0

## "Obsidian" Coated Brick After Cleaning





#### **CONCLUSIONS: New Construction Cleaning**

In the cleaning tests conducted, neither Sure Klean® Vana Trol® nor Sure Klean® 600 caused any change to the appearance of the submitted brick. However, the Product Data Sheet for Sure Klean® 600 states, "may not be suitable for cleaning buff-colored brick and brick, stone, or tile with manganese or other metallic additives." Additionally, Sure Klean® Vana Trol® is "designed for use with colored mortar."

When choosing the most appropriate product for the desired result:

- For new masonry surfaces that are subject to vanadium, manganese, and other metallic stains test Sure Klean® Vana Trol®
- For a general purpose, concentrated acidic cleaner test Sure Klean® 600

It is recommended that the selected cleaners always be used in the lowest possible concentration. 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 cleaning product and procedures for a particular project. See product literature for additional application and product information.

#### **RECOMMENDATIONS: New Construction Cleaning**

Recommendations for cleaning the brick submitted by Interstate Brick, West Jordan, UT are provided in the chart below. Recommendations are based on the cleaner and dilution that provided the best match to the uncleaned surface.

Sample	New Construction Cleaning
"Black Ice" Coated Brick	
"Black Opal" Coated Brick	<sup>1</sup> Sure Klean® Vana Trol® (1:6) or (1:8) OR <sup>2</sup> Sure Klean® 600 (1:6) or (1:8)
"Obsidian" Coated Brick	

NOTE: "1" indicates the recommended first choice and "2" indicates the recommended second choice. These recommendations are based on the Product Data Sheet limitations for certain brick types.

The most appropriate cleaner and dilution should be determined on the specific job-site, and will be dependent primarily on the nature and severity of soiling present at that location.

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 cleaning product and procedures for a particular project. See product literature for additional application and product information.



#### SAMPLE PREPARATION: Treatment Application

Prior to treatment application, the submitted brick were cleaned with Sure Klean® Vana Trol® diluted with eight parts water in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. After the samples had dried for at least 24 hours, all of the treatments were applied in a brushing application in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. The treatments were allowed to cure for at least 72 hours prior to testing.

#### **TEST METHODS: Protective Water Repellents**

#### Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes

The water absorption tube test simulating wind driven rain conditions was performed on the submitted samples. Tests were run with 5.0-milliliter head pressures. Filled to 5.0 milliliters, a water absorption tube produces a 98 mph dynamic wind pressure. See RILEM II.4 Tech Note for additional information.

The ranking system used to evaluate the effectiveness of the products applied to each submitted sample is as follows:

**<u>AA</u>** = "Above Average" correlates to less than or equal to 20% of the maximum untreated absorption.

 $\underline{A}$  = "Average" correlates to less than or equal to 50% of the maximum untreated absorption.

**<u>BA</u>** = "Below Average" correlates to greater than 50% of the maximum untreated absorption.

**EXAMPLE:** If RILEM tubes applied to an untreated sample result in loss of 5.0 ml of water or more, then:

A rating of <u>AA</u> *Above Average* water repellent performance would be reported for treatments which result in a loss of no more than:

5.0 mL × 20% = **1.0 mL** 

A rating of <u>A</u> Average water repellent performance would be reported for treatments which result in a loss of no more than:

5.0 mL × 50% = **2.5 mL** 

A rating of **<u>BA</u>** *Below Average* water repellent performance would be reported for treatments which result in a loss of more than:

5.0 mL × 50% = **2.5 mL** 





#### **TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents**

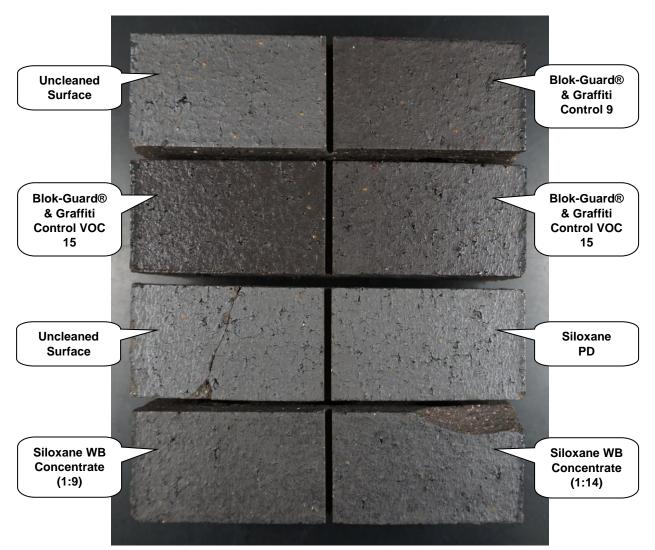
#### Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes

 $\underline{AA}$  = Above Average  $\underline{A}$  = Average

BA = Below Average

"Black Ice" Coated Brick	Results in mL loss	<u>Ranking</u>
Untreated Control	-0.5	
Blok-Guard® & Graffiti Control 9	-0.0	<u>AA</u>
Blok-Guard® & Graffiti Control VOC 15	-0.0	<u>AA</u>
Blok-Guard® & Graffiti Control WB 15	-0.0	<u>AA</u>
Siloxane PD	-0.0	<u>AA</u>
Siloxane WB Concentrate (1:9)	-0.0	<u>AA</u>
Siloxane WB Concentrate (1:14)	-0.0	<u>AA</u>

#### "Black Ice" Coated Brick After Application





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

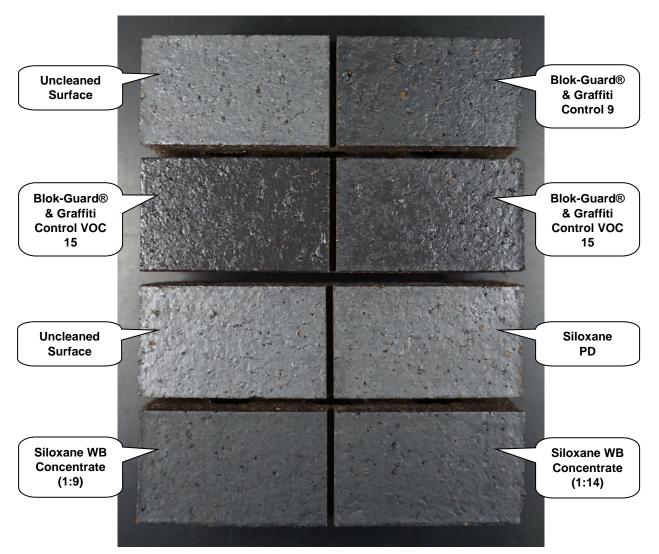
#### Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes

 $\underline{AA}$  = Above Average  $\underline{A}$  = Average

BA = Below Average

"Black Opal" Coated Brick	Results in mL loss	<u>Ranking</u>
Untreated Control	-0.2	
Blok-Guard® & Graffiti Control 9	-0.0	<u>AA</u>
Blok-Guard® & Graffiti Control VOC 15	-0.0	<u>AA</u>
Blok-Guard® & Graffiti Control WB 15	-0.0	<u>AA</u>
Siloxane PD	-0.0	<u>AA</u>
Siloxane WB Concentrate (1:9)	-0.0	<u>AA</u>
Siloxane WB Concentrate (1:14)	-0.0	<u>AA</u>

#### "Black Opal" Coated Brick After Application





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

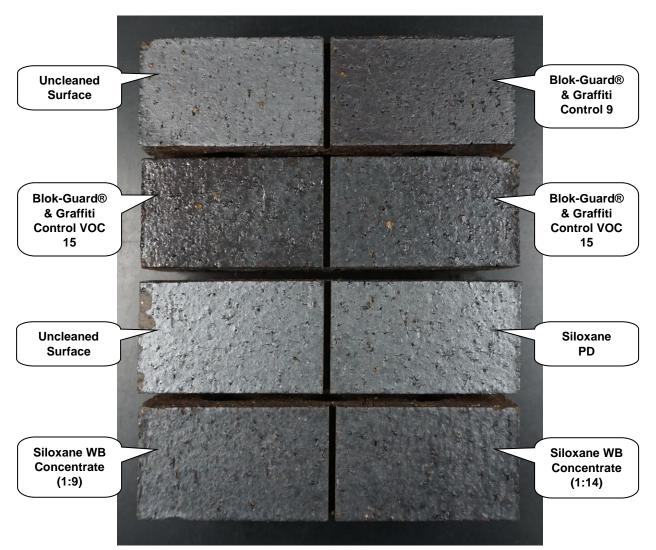
#### Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes

 $\underline{AA}$  = Above Average  $\underline{A}$  = Average

BA = Below Average

"Obsidian" Coated Brick	Results in mL loss	<u>Ranking</u>
Untreated Control	-0.2	
Blok-Guard® & Graffiti Control 9	-0.0	AA
Blok-Guard® & Graffiti Control VOC 15	-0.0	AA
Blok-Guard® & Graffiti Control WB 15	-0.0	AA
Siloxane PD	-0.0	AA
Siloxane WB Concentrate (1:9)	-0.0	AA
Siloxane WB Concentrate (1:14)	-0.0	AA

#### "Obsidian" Coated Brick After Application





#### **CONCLUSIONS: Protective Water Repellents**

Based on the laboratory evaluations, all of the treatments provided good water repellent protection to the submitted brick.

Application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control 9 resulted in moderate color enhancement. No sheen enhancement was observed.

Application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control VOC 15 often resulted in moderate color enhancement and slight sheen enhancement.

Application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control WB 15 often resulted in moderate color enhancement and moderate sheen enhancement.

Application of Sure Klean® Weather Seal Siloxane PD did not result in any change to the appearance of the submitted brick.

Application of Sure Klean® Weather Seal Siloxane WB Concentrate (1:9) or (1:14) resulted in a slight to moderate color enhancement. No sheen enhancement was observed with either dilution of the treatment.

Enhancement levels may vary by substrate, color, lightning, 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: Protective Water Repellents**

Recommendations for water repellency for the brick submitted by Interstate Brick, West Jordan, UT are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Water Repellency
"Black Ice" Coated Brick	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control 9 OR
"Black Opal" Coated Brick	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control VOC 15 OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control WB 15 OR Sure Klean® Weather Seal Siloxane PD
"Obsidian" Coated Brick	OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9) or (1:14)

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: Graffiti Resistance**

This evaluation compares the effectiveness of graffiti control treatments in preventing staining of enamel spray paint and permanent marker.

Graffiti comes in many forms, many of which are low quality, readily available spray paints and markers. While those forms of graffiti are most common and may be easier to remove, the testing below was conducted with the graffiti types we have found to be the most resilient and hardest to remove in order to provide you with a "worst case scenario." Always test in field conditions to verify intended performance.

Spray paint and marker were applied as graffiti agents to the untreated and treated surfaces five days after application of the graffiti resistant products. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Enviro Klean® SafStrip® and Sure Klean® Graffiti Remover.

Chemical cleaners were evaluated using the following procedure:

- 1. Apply the product to a dry surface, soiled with graffiti.
- 3. Rinse thoroughly until water runs clear. \*
- 4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

\***Pressure Rinsing Equipment –** Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 40-degree fan spray tip was used for rinsing.

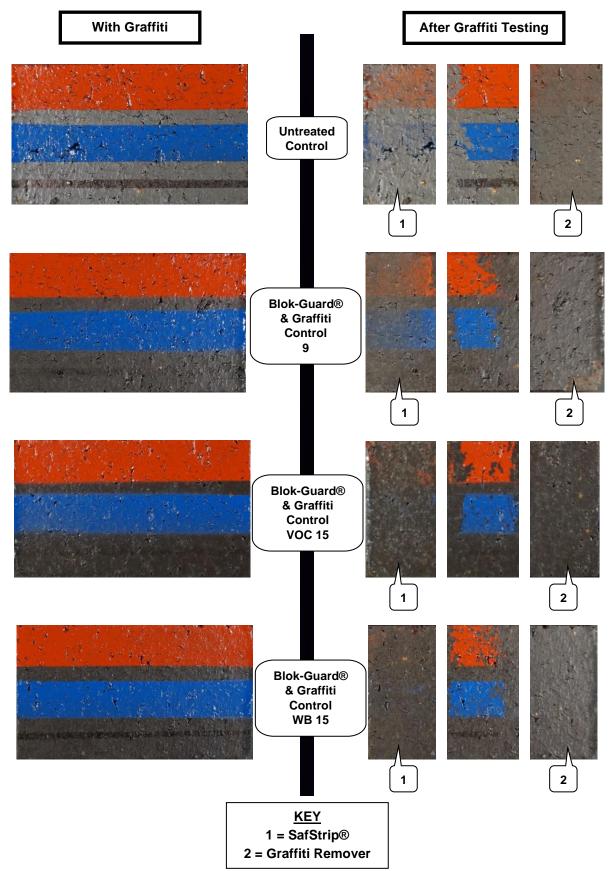
Graffiti removal was evaluated visually using a scale from 0 to 10, with 0 indicating no removal of the graffiti agent and 10 indicating complete removal of the graffiti agent.



"Black Ice" Coated Brick				
Untreated Control	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	7	8	10	8.3
Graffiti Remover	9	9	10	9.3
Blok-Guard <sup>®</sup> & Graffiti Control 9	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	7	6	10	7.7
Graffiti Remover	10	10	10	10.0
Blok-Guard <sup>®</sup> & Graffiti Control VOC 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	9	9	10	9.3
Graffiti Remover	10	10	10	10.0
Blok-Guard <sup>®</sup> & Graffiti Control WB 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	9	9	10	9.3
Graffiti Remover	10	10	10	10.0





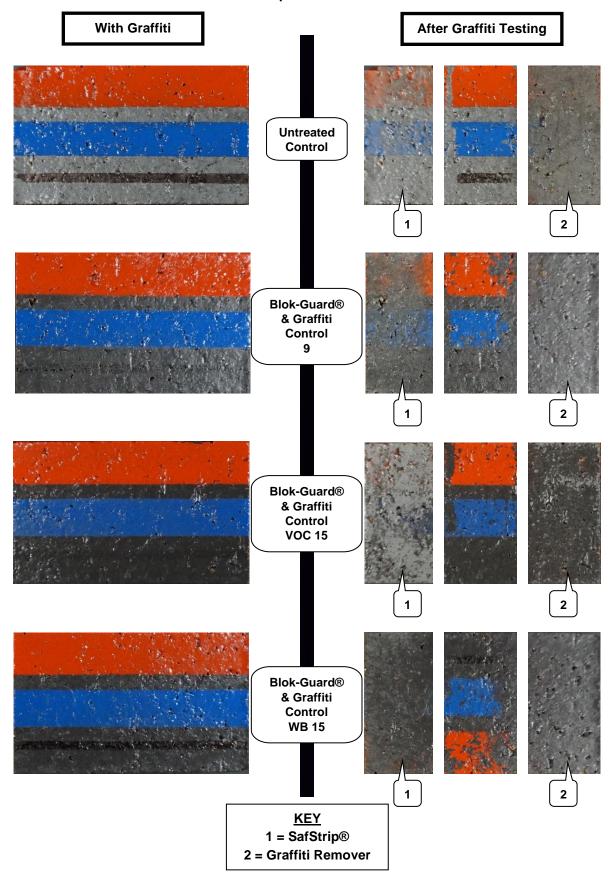




"Black Opal" Coated Brick				
Untreated Control	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	7	7	10	8.0
Graffiti Remover	10	10	10	10.0
Blok-Guard® & Graffiti Control 9	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	8	8	10	8.7
Graffiti Remover	10	10	10	10.0
Blok-Guard <sup>®</sup> & Graffiti Control VOC 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	8	8	10	8.7
Graffiti Remover	10	10	10	10.0
Blok-Guard <sup>®</sup> & Graffiti Control WB 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	9	10	10	9.7
Graffiti Remover	10	10	10	10.0



"Black Opal" Coated Brick

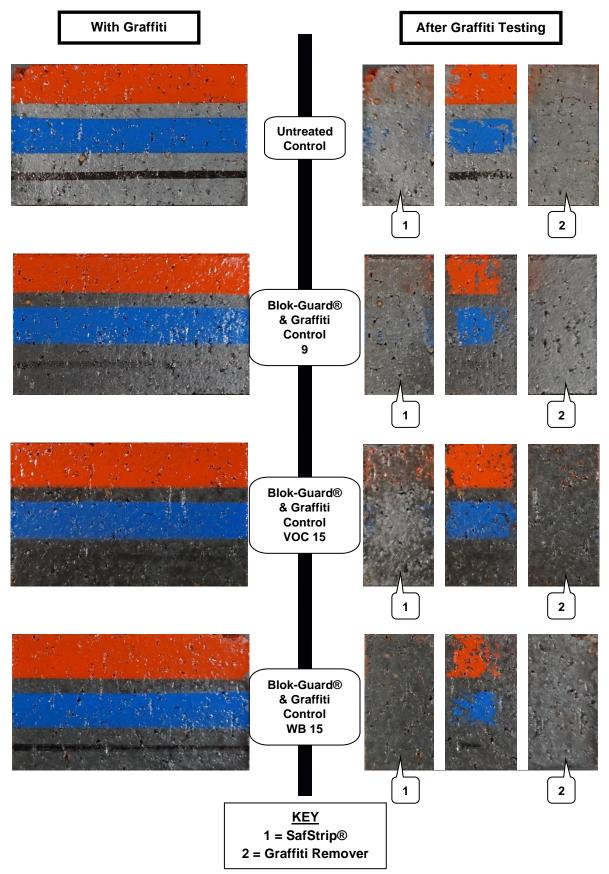




"Obsidian" Coated Brick				
Untreated Control	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	8	8	10	8.7
Graffiti Remover	9	10	10	9.7
Blok-Guard <sup>®</sup> & Graffiti Control 9	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	9	9	10	9.3
Graffiti Remover	9	10	10	9.7
Blok-Guard® & Graffiti Control VOC 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	8	9	10	9.0
Graffiti Remover	9	10	10	9.7
Blok-Guard <sup>®</sup> & Graffiti Control WB 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip®	9	10	10	9.7
Graffiti Remover	10	10	10	10









#### **CONCLUSIONS: Graffiti Resistance**

Based on the laboratory evaluations, graffiti removal was improved with Sure Klean® Weather Seal Blok-Guard® & Graffiti Control 9, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control VOC 15, and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control WB 15.

Worth noting, it appears that the Sure Klean® Weather Seal Blok-Guard® & Graffiti Control VOC 15 treatment was partially removed from the "Black Opal" coated brick when cleaned with Enviro Klean® SafStrip® and Sure Klean® Graffiti Remover, and the "Obsidian" coated brick when cleaned with Enviro Klean® SafStrip®. This potentially resulted from excess material being left on the surface when the treatment was applied due to the density of the submitted sample.

Enviro Klean® SafStrip® and Sure Klean® Graffiti Remover were both effective in removing graffiti from the submitted samples. However, Sure Klean® Graffiti Remover was the most effective.

On-site testing is always recommended to ensure the desired result. Heavy graffiti staining may require more than one application of the graffiti remover.



#### **RECOMMENDATIONS:** Graffiti Resistance

Recommendations for graffiti resistance for each type of brick submitted by Interstate Brick, West Jordan, UT are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective on average for providing graffiti repellency and the product that was most effective on average at removing the graffiti on all types submitted. Heavy graffiti staining may require more than one application of the graffiti remover.

Sample	Graffiti Resistance		
"Black Ice" Coated Brick	<u>Graffiti Repellents</u> Sure Klean® Weather Seal Blok-Guard® & Graffiti Control 9 OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control VOC 15 OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control WB 15 <u>Graffiti Removers</u> <sup>1</sup> Sure Klean® Graffiti Remover OR <sup>2</sup> Enviro Klean® SafStrip®		
"Black Opal" Coated Brick	<u>Graffiti Repellents</u> Sure Klean® Weather Seal Blok-Guard® & Graffiti Control 9 OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control WB 15		
"Obsidian" Coated Brick	<u>Graffiti Removers</u> <sup>1</sup> Sure Klean® Graffiti Remover OR <sup>2</sup> Enviro Klean® SafStrip®		

NOTE: "1" indicates the most effective product and "2" indicates the second most effective product.

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.

J. Quese Conadoll

J. Lucas Comadoll Project Testing Technician

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF <u>THIRTY (30) DAYS</u> 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 <u>THIRTY</u> (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.