

# Pallet Tag Program Laboratory Report

# Brock White Construction Materials Burnaby, BC, Canada



Project No. 2108-02 PTP

Prepared For:



Prepared By:

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J. Lucas Comadoll Project Testing Technician AMT Laboratories

August 2021



# LABORATORY REPORT

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DATE:

PROJECT:

August 27, 2021

2108-02 PTP

FOR: Bob Driedger, Brock White Construction Materials

**cc:** Jake Boyer, PROSOCO, Inc. Al Morris, PROSOCO, Inc.

**SUBJECT:** Brock White Construction Materials

Burnaby, BC, Canada Pallet Tag Evaluation

**SAMPLES SUBMITTED:** 1 type of clay brick

Sample	Name	Color	Size
(8) Brick	"Contemporary White – Smooth"	White	7.75" x 2.25"

SUBMITTED BY: Bob Driedger

**Brock White Construction Materials** 

7851 Enterprise Street Burnaby, BC V5A 1V5

Canada



#### **PURPOSE OF TEST:**

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted samples.
- To evaluate the color and sheen enhancement characteristics of the requested PROSOCO, Inc. treatments 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 the penetration of, and simplifying the removal of, graffiti staining on the submitted samples.

# **PRODUCTS EVALUATED:**

New Construction Cleaning	Dilution:
Sure Klean® Vana Trol®	1:4, 1:6, 1:8
Enviro Klean® Safety Klean	1:2, 1:3

Water Repellency	Dilution:
Sure Klean® Weather Seal Siloxane PD	N/A*
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control Ultra	N/A*
PROSOCO T2676 Graffiti Control WB 15	N/A*

Graffiti Resistance	Dilution:
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control Ultra	N/A*
PROSOCO T2676 Graffiti Control WB 15	N/A*

Graffiti Removal	Dilution:
Enviro Klean® SafStrip®	N/A*
Sure Klean® Graffiti Remover	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 Enviro Klean® Safety Klean 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:**

- Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Data Sheet.
- 2. Allow for an appropriate dwell time and periodically agitate:

Vana Trol®	5 minutes
Safety Klean	5 minutes

- 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.

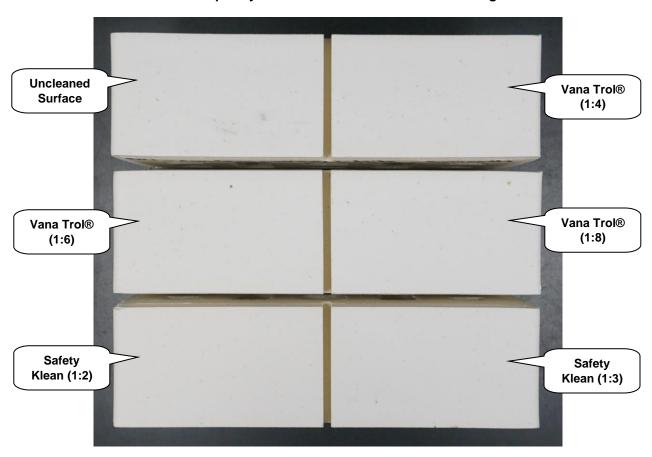
<sup>\*</sup>Rinsing Equipment – Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 40 degree fan spray tip was used for rinsing.



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

Name: "Contemporary White - Smooth" Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Vana Trol®	1:4	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
Safety Klean	1:2	0	0	0	0
Safety Klean	1:3	0	0	0	0

# "Contemporary White - Smooth" Brick After Cleaning





# **CONCLUSIONS: New Construction Cleaning**

In the cleaning tests conducted, Sure Klean® Vana Trol® and Enviro Klean® Safety Klean caused no change to the appearance of the submitted brick.

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 an effective, safe alternative to acidic cleaning compounds test Enviro Klean® Safety Klean

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 Brock White Construction Materials, Burnaby, BC, Canada 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		
"Contemporary White - Smooth" Brick	Sure Klean® Vana Trol® (1:4) or (1:6) or (1:8) OR Enviro Klean® Safety Klean (1:2) or (1:3)		

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 "Contemporary White - Smooth" brick was 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, Sure Klean® Weather Seal Siloxane PD, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control Ultra, and PROSOCO T2676 Graffiti Control WB 15 were applied in a brushing application in accordance with the current PROSOCO, Inc. Product Data Sheet instructions for dense surfaces. 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.

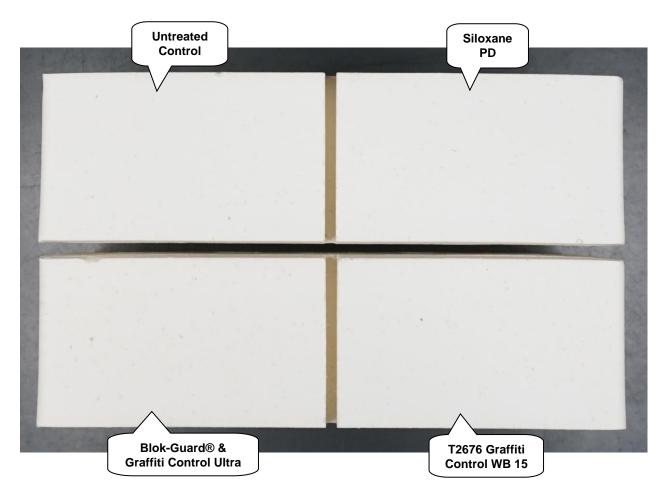
The following scale was used for reporting results of both categories:	
0 - No enhancement compared to untreated control	
1 - Slight enhancement compared to untreated control	
2 - Moderate enhancement compared to untreated control	
3 - Significant enhancement compared to untreated control	



# **TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement**

"Contemporary White - Smooth" Brick	Color Enhancement	Sheen Enhancement
Sure Klean® Weather Seal Siloxane PD	0	0
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control Ultra	0	0
PROSOCO T2676 Graffiti Control WB 15	0	0

# "Contemporary White - Smooth" Brick with Treatments





#### **CONCLUSIONS: Color and Sheen Enhancement**

The treatments evaluated provided no color or sheen enhancement to the submitted samples.

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 the brick submitted by Brock White Construction Materials, Burnaby, BC, Canada are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

The application instructions for dense surfaces must be followed to prevent over application.

Sample	Color and Sheen Enhancement	
"Contemporary White - Smooth" Brick	Sure Klean® Weather Seal Siloxane PD (Recommended if zero enhancement is desired) OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control Ultra (Recommended if zero enhancement is desired) OR PROSOCO T2676 Graffiti Control WB 15 (Recommended if zero enhancement is desired)	

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: 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:

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

**A** = "Average" correlates to less than or equal to 50% of the maximum untreated absorption.

**BA** = "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:

 $5.0 \text{ mL} \times 20\% = 1.0 \text{ mL}$ 

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

 $5.0 \text{ mL} \times 50\% = 2.5 \text{ mL}$ 

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

 $5.0 \text{ mL} \times 50\% = 2.5 \text{ mL}$ 





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

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

 $\underline{\mathbf{AA}}$  = Above Average  $\underline{\mathbf{A}}$  = Average  $\underline{\mathbf{BA}}$  = Below Average

"Contemporary White - Smooth" Brick	Results in mL loss	Ranking
Untreated Control	-1.5	
Sure Klean® Weather Seal Siloxane PD	-0.0	<u>AA</u>
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control Ultra	-0.0	<u>AA</u>
PROSOCO T2676 Graffiti Control WB 15	-0.0	<u>AA</u>

# **CONCLUSIONS: Protective Water Repellents**

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

#### **RECOMMENDATIONS: Protective Water Repellents**

Recommendations for water repellency for the brick submitted by Brock White Construction Materials, Burnaby, BC, Canada are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

The application instructions for dense surfaces must be followed to prevent over application.

Sample	Water Repellency		
"Contemporary White - Smooth" Brick	Sure Klean® Weather Seal Siloxane PD OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control Ultra OR PROSOCO T2676 Graffiti Control WB 15		

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.
- 2. Allow appropriate dwell time and periodically agitate:

- 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.

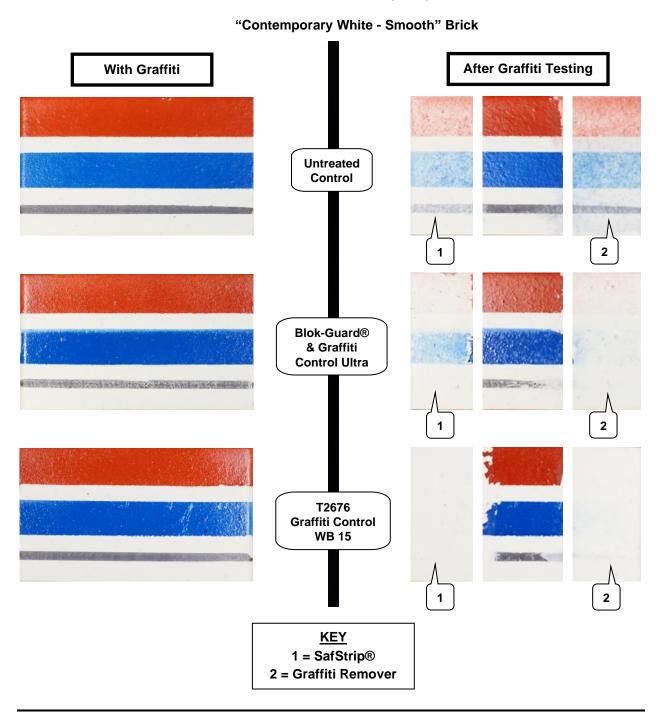
Graffiti removal was evaluated visually using a scale from 0 to 10, with 0 indicating no removal of the graffiti agent and 10 indicating complete removal of the graffiti agent.

#### **TEST RESULTS AND PHOTOGRAPHS: Graffiti Resistance**

"Contemporary White - Smooth" Brick						
Untreated Control	Red Paint	Blue Paint	Black Marker	Avg. Rating		
SafStrip®	5	5	5	5.0		
Graffiti Remover	4	4	4	4.0		
Blok-Guard® & Graffiti Control Ultra	Red Paint	Blue Paint	Black Marker	Avg. Rating		
SafStrip®	8	6	10	8.0		
Graffiti Remover	8	8	10	8.7		
T2676 Graffiti Control WB 15	Red Paint	Blue Paint	Black Marker	Avg. Rating		
SafStrip®	10	9	10	9.7		
Graffiti Remover	10	9	9	9.3		



# **TEST RESULTS AND PHOTOGRAPHS: Graffiti Resistance (cont.)**



# **CONCLUSIONS: Graffiti Resistance**

Based on the laboratory evaluations, graffiti removal was improved with both treatments. However, PROSOCO T2676 Graffiti Control WB 15 was the most effective treatment.

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

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 the brick submitted by Brock White Construction Materials, Burnaby, BC, Canada 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.

The application instructions for dense surfaces must be followed to prevent over application.

Sample	Graffiti Repellents	Graffiti Removers	
"Contemporary White - Smooth" Brick	<sup>1</sup> PROSOCO T2676 Graffiti Control WB 15 OR <sup>2</sup> Sure Klean® Weather Seal Blok- Guard® & Graffiti Control Ultra	Enviro Klean® SafStrip® OR Sure Klean® Graffiti Remover	

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. 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.