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Pallet Tag Program Laboratory Report Hebron Brick Company Hebron, ND



Project No. 2111-02 PTP

Prepared For:



Prepared By:

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January 2022



LABORATORY REPORT

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FOR: Corey Schultz, Hebron Brick Company

cc: Kevin Gwinn, Tri-G Products, Inc.

Ken Rathbun, PROSOCO, Inc. Jake Boyer, PROSOCO, Inc. Al Morris, PROSOCO, Inc.

SUBJECT: Hebron Brick Company

Hebron, ND

Pallet Tag Evaluation

SAMPLES SUBMITTED: 1 type of clay brick

Sample	Name	Color	Size	
(6) Brick	"Ovation"	Dark Red	7.5" x 2.25"	

DATE:

PROJECT:

January 10, 2022

2111-02 PTP

SUBMITTED BY: Jerrid Soupir

Hebron Brick Company 1000 Washington AveEast

Hebron, ND 58638



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 for the submitted samples.

PRODUCTS EVALUATED:

New Construction Cleaning	Dilution:
Sure Klean® 600 Detergent	1:6, 1:8
Enviro Klean® Safety Klean	1:2, 1:3
Sure Klean® Vana Trol®	1:6, 1:8

Water Repellency	Dilution:
Sure Klean® Weather Seal Siloxane PD	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® 600 Detergent, 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:

600	5 minutes
Safety Klean	
Vana Trol®	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.

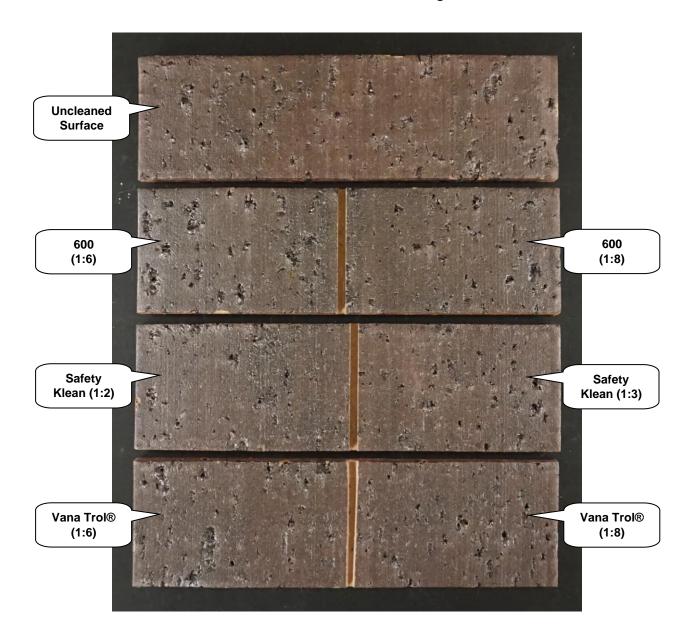
^{*}Rinsing Equipment – Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 40 degree fan spray tip was used for rinsing.



TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning

Name: "Ovation" Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600	1:6	0	0	0	0
600	1:8	0	0	0	0
Safety Klean	1:2	0	0	0	0
Safety Klean	1:3	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0

"Ovation" Brick After Cleaning





CONCLUSIONS: New Construction Cleaning

In the cleaning tests conducted, none of the new construction cleaners caused any change to the appearance of the submitted brick.

When choosing the most appropriate product for the desired result:

- For a general purpose, concentrated acidic cleaner test Sure Klean® 600
- For an effective, safe alternative to acidic cleaning compounds test Enviro Klean® Safety Klean
- For new masonry surfaces that are subject to vanadium, manganese, and other metallic stains test Sure Klean® Vana Trol®

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 Hebron Brick Company, Hebron, ND 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
"Ovation" Brick	Sure Klean® 600 (1:6) or (1:8) OR Enviro Klean® Safety Klean (1:2) or (1:3) OR Sure Klean® Vana Trol® (1:6) or (1:8)

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 "Ovation" 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 was applied in a brushing application in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. The treatment was 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:

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 <u>BA</u> 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: 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

"Ovation" Brick	Results in mL loss	Ranking
Untreated Control	-0.2	
Sure Klean® Weather Seal Siloxane PD	-0.0	<u>AA</u>

CONCLUSIONS: Protective Water Repellents

Based on the laboratory evaluations, Sure Klean® Weather Seal Siloxane PD provided good water repellent protection to the submitted samples.

RECOMMENDATIONS: Protective Water Repellents

Recommendations for water repellency for the brick submitted by Hebron Brick Company, Hebron, ND are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Water Repellency
"Ovation" Brick	Sure Klean® Weather Seal Siloxane PD

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

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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 (30) DAYS</u> 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.