



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

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## ATTACHMENTS

Technical Services TECH Note RILEM Tube Test Procedures

Product Data literature for all products evaluated



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**FOR:** Craig Frieze  
**cc:** Paul Tessier

**SUBJECT:** Watkins Concrete Block Company, Inc.  
Omaha, NE

**DATE:** January 5, 2005

**PROJECT:** 0411-02 PTP

**SAMPLES SUBMITTED:** 3 types of split-face CMU's and 1 type of smooth-face CMU, all containing Dry-Blok integral water repellent.

Block	Name	Color	Size
Split-face CMU	"Arctic White"	White	8" x 16" x 8"
Split-face CMU	"Medium Brown"	Red/Brown	
Split-face CMU	"Putty"	Cream	
Smooth-face CMU	"Sahara"	Light Brown	8" x 16" x 12"

Submitted by: Craig Frieze



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## PURPOSE OF TESTING:

Three integrally colored split-face blocks and one integrally colored smooth-face block, all with large, small and fine aggregate were submitted for testing using PROSOCO's new construction cleaning, water repellent products, and graffiti control products.

**A. Cleaning Concrete Masonry Units:** Sure Klean® Custom Masonry Cleaner, Sure Klean® Burnished Custom Masonry Cleaner, or Enviro Klean® Safety Klean were evaluated at various dilutions for removal of laboratory applied mortar.

To simulate new construction soiling, all split-face concrete masonry units (CMU's) are placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall are positioned on top of each CMU and filled with a wet mixture of Type S mortar. The wet, mortar-filled cylinder is allowed to remain in contact with the CMU for 10 minutes before removal.

Heavy deposits of mortar are removed with dry scraping after 24 hours. Prepared cleaning solutions are then evaluated for their effectiveness in removing residual Type S mortar staining after 3 days, 7 days, and 14 days of curing. **NOTE:** Sure Klean® Burnished Custom Masonry Cleaner and Enviro Klean® Safety Klean were only evaluated on the "Sahara" smooth-face CMU with a 3 day cure time.

**B. Color Uniformity Testing\*** - Sure Klean® Custom Masonry Cleaner, Sure Klean® Burnished Custom Masonry Cleaner, or Enviro Klean® Safety Klean were evaluated at various dilutions to determine the optimal concentration of cleaner that leaves the external surface looking most like the natural through-body color of the CMU. Color uniformity was evaluated by comparing aggregate exposure and surface pigment alternation/removal of each cleaned surface compared to the natural through-body color of the CMU.

Aggregate Exposure is the visual examination comparing aggregate exposure of the interior, through-body section of CMU to surfaces cleaned with selected product(s) at given dilutions.

Surface Pigment Alteration/Removal\* is the visual examination comparing the pigmentation of the Interior, through-body section of the CMU to surfaces cleaned with selected product(s) at given dilutions.

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

- |  |                                       |
|--|---------------------------------------|
| 0 – <b>Worst</b> match to through-body | 3 – <b>Good</b> match to through-body |
| 1 – <b>Poor</b> match to through-body  | 4 – <b>Best</b> match to through-body |
| 2 – <b>Fair</b> match to through-body  |                                       |

**NOTE: When cleaning integrally colored CMU.**

Integrally colored concrete masonry units (CMU's) frequently have high amounts of pigments concentrated on the surface of the cured concrete unit. Variation of surface pigment concentrations from one CMU to the next creates a blotchy appearance in the completed wall. Allowed to remain on the surface of the CMU, the weakly bound pigment will weather and streak, further detracting from the appearance of the completed CMU wall.

In addition to removing excess mortar and construction related soiling, the goal of any cleaning operation undertaken on an integrally colored CMU should include removal of unnaturally high concentrations of surface pigment. By revealing the natural through-body color on the integrally colored unit, the overall color uniformity and weathering resistance of the completed CMU wall is improved.

**C. Protective Water Repellents** – Sure Klean® Weather Seal Blok-Guard® and Graffiti Control and Sure Klean® Weather Seal Siloxane WB Concentrate diluted with nine parts water were evaluated for their ability to provide water repellency to the submitted samples.

**D. Graffiti Control** – Sure Klean® Weather Seal Blok-Guard® and Graffiti Control was evaluated for its ability to control graffiti on the submitted samples. Sure Klean® Fast Acting Stripper and Defacer Eraser® Graffiti Wipe were evaluated for their ability to remove graffiti from the submitted samples.



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## PRODUCTS EVALUATED FOR CLEANING AND COLOR UNIFORMITY

Block Type	Product	Dilution
All Submitted Split-face CMU's	Sure Klean® Custom Masonry Cleaner	1:2, 1:4, 1:6
"Sahara" Smooth-face CMU	Sure Klean® Burnished Custom Masonry Cleaner	1:2, 1:3
	Enviro Klean® Safety Klean	1:2, 1:3

## WATER REPELLENT PRODUCTS EVALUATED

Block Type	Product	Dilution
All Submitted CMU's	Sure Klean® Weather Seal Blok-Guard® and Graffiti Control	Concentrate
	Sure Klean® Weather Seal Siloxane WB Concentrate	1:9

## GRAFFITI CONTROL PRODUCTS EVALUATED

Block Type	Product	Dilution
All Submitted CMU's	Sure Klean® Weather Seal Blok-Guard® and Graffiti Control	Concentrate

## GRAFFITI REMOVAL PRODUCTS EVALUATED

Block Type	Product
All Submitted CMU's	Sure Klean® Fast Acting Stripper
	Defacer Eraser® Graffiti Wipe



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## **SECTION A – CLEANING INTEGRALLY COLORED CMU's**

### **DESCRIPTION OF PRODUCTS EVALUATED**

These cleaning trials were conducted to determine the optimal cleaning/cure time combination.

**NOTE:** It was reported that the “Sahara” CMU has been problematic with new construction cleaners in field tests. Adverse effects have reportedly occurred with several hydrochloric acid cleaners. For this reason, Sure Klean® Burnished Custom Masonry Cleaner and Enviro Klean® Safety Klean were evaluated on the “Sahara” smooth-face CMU's. Due to time constraints, only a 3-day cure mortar cure time was evaluated on the “Sahara” CMU's.

**Sure Klean® Custom Masonry Cleaner** – A general purpose, concentrated acidic cleaner for most custom masonry and colored concrete. Removes concrete splashes, excess mortar, mud, heavy efflorescence and surface soiling, leaving the masonry clean and uniform with no acid burning or streaking. Liquid concentrate for dilution with 2-6 parts water. Apply by brush or low-pressure spray.

#### **FOR USE ON “SAHARA” CMU's ONLY:**

**Sure Klean® Burnished Custom Masonry Cleaner** – A general purpose, non-etching acidic cleaner for most custom masonry and colored concrete. Removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture, while also adding depth to colors and brightening white matrices and exposed aggregate. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

**Enviro Klean® Safety Klean** – An effective, safe alternative to acidic compounds for cleaning brick, tile and concrete surfaces. Safety Klean rids new masonry construction of excess mortar, dirt and other common job site soiling. It's ideal for projects where traditional acidic cleaners are not allowed. Non-fuming Safety Klean contains no hydrochloric or other traditional inorganic acids and is safe for use on and around most metal surfaces, indoors or out. It is up to 70 percent more effective than citric and glycolic acids, and 50 percent more effective than phosphoric acid.

### **TEST METHOD – Cleaning**

Dilution ratios refer to mixtures of parts concentrated cleaner : parts fresh water. Chemical cleaners were evaluated using the following procedure:

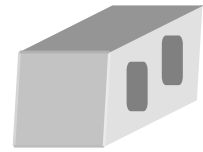
1. Prewet the surface with water.
2. Apply each cleaner at the appropriate dilutions.
3. Allow appropriate dwell time for each cleaner:
 

Custom Masonry Cleaner.....	3 minutes
Burnished Custom Masonry Cleaner .....	3-5 minutes
Safety Klean .....	3 minutes
4. Reapply the products and moderately agitate with a brush.
5. Pressure rinse thoroughly.\*
6. Allow the surface to dry for at least 18 hours and visually examine.

\* Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.



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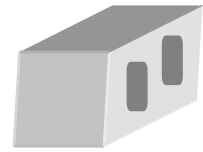
## TEST RESULTS – Cleaning

### % Removal of Type S Mortar

<b>“Arctic White” Split-face CMU</b>				
<b>Product</b>	<b>Dilution</b>	<b>3 day</b>	<b>7 day</b>	<b>14 day</b>
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
<b>“Medium Brown” Split-face CMU</b>				
<b>Product</b>	<b>Dilution</b>	<b>3 day</b>	<b>7 day</b>	<b>14 day</b>
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	95%	100%
Custom Masonry Cleaner	1:6	100%	95%	100%
<b>“Putty” Split-face CMU</b>				
<b>Product</b>	<b>Dilution</b>	<b>3 day</b>	<b>7 day</b>	<b>14 day</b>
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
<b>“Sahara” Smooth-face CMU</b>				
<b>Product</b>	<b>Dilution</b>	<b>3 day</b>		
Burnished Custom Masonry Cleaner	1:2	95%		
Burnished Custom Masonry Cleaner	1:3	90%		
Safety Klean	1:2	95%		
Safety Klean	1:3	95%		

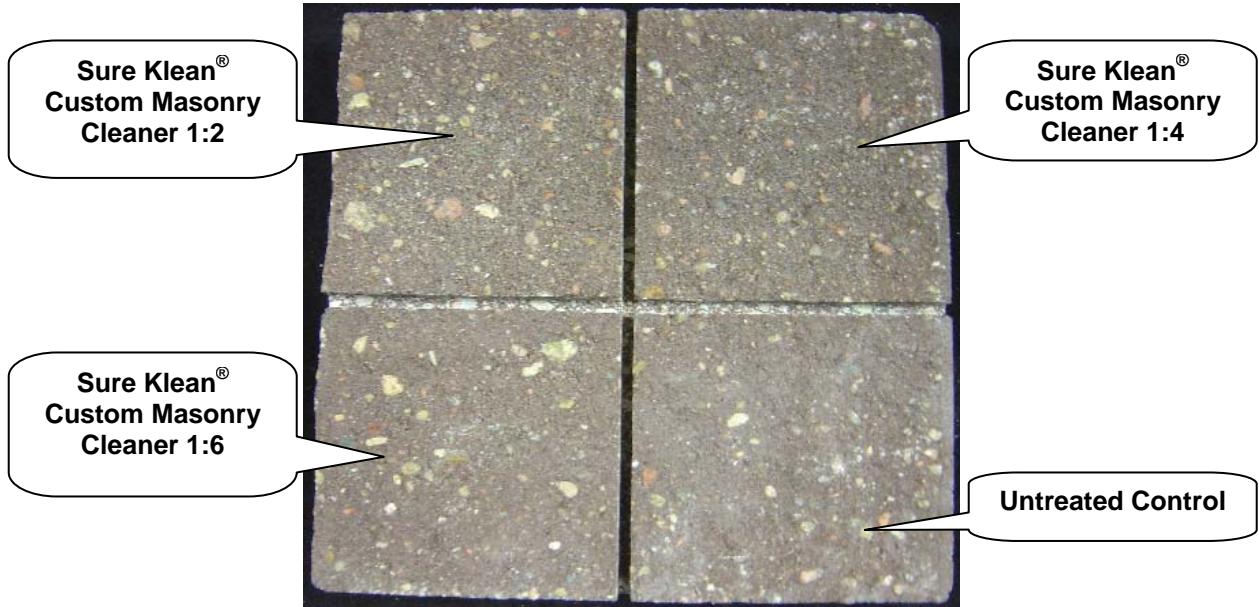


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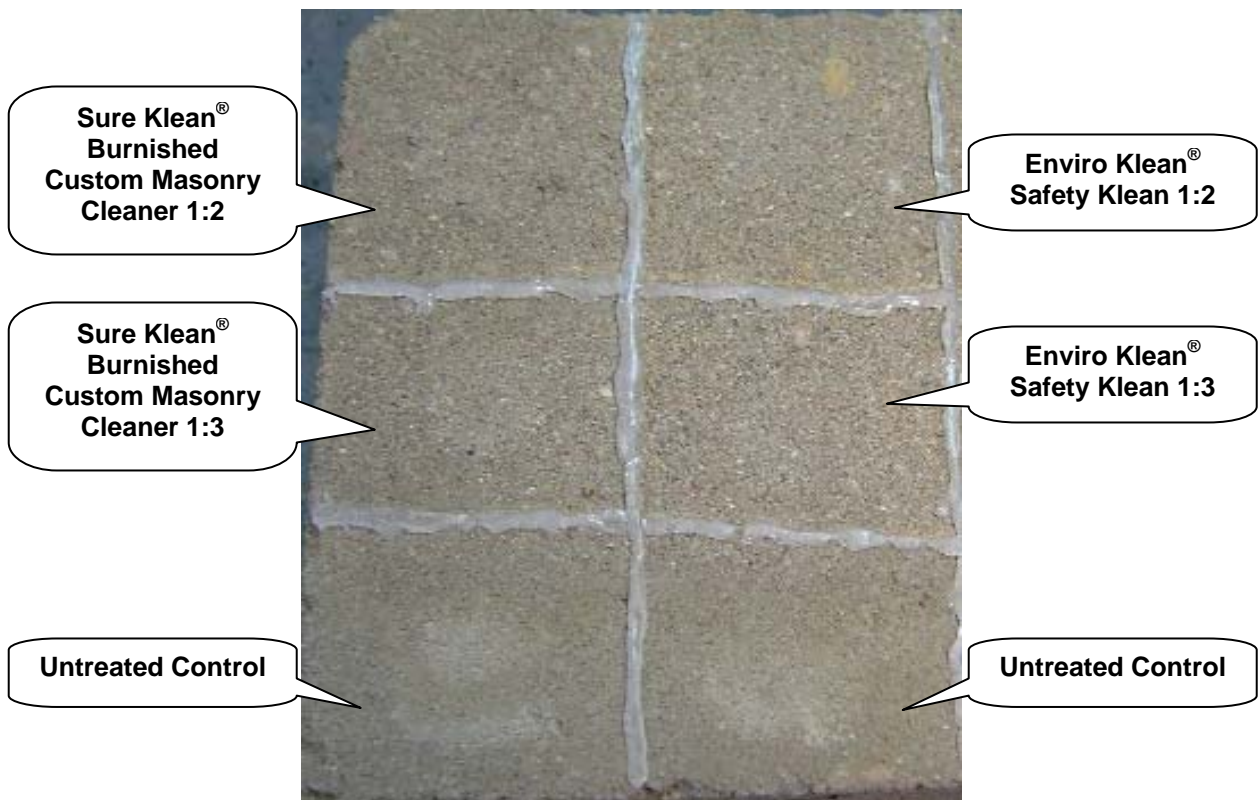


## PHOTOGRAPHS- Cleaning

“Medium Brown” Split-face CMU; 3 Day Cleaning



“Sahara” Smooth-face CMU; 3 Day Cleaning





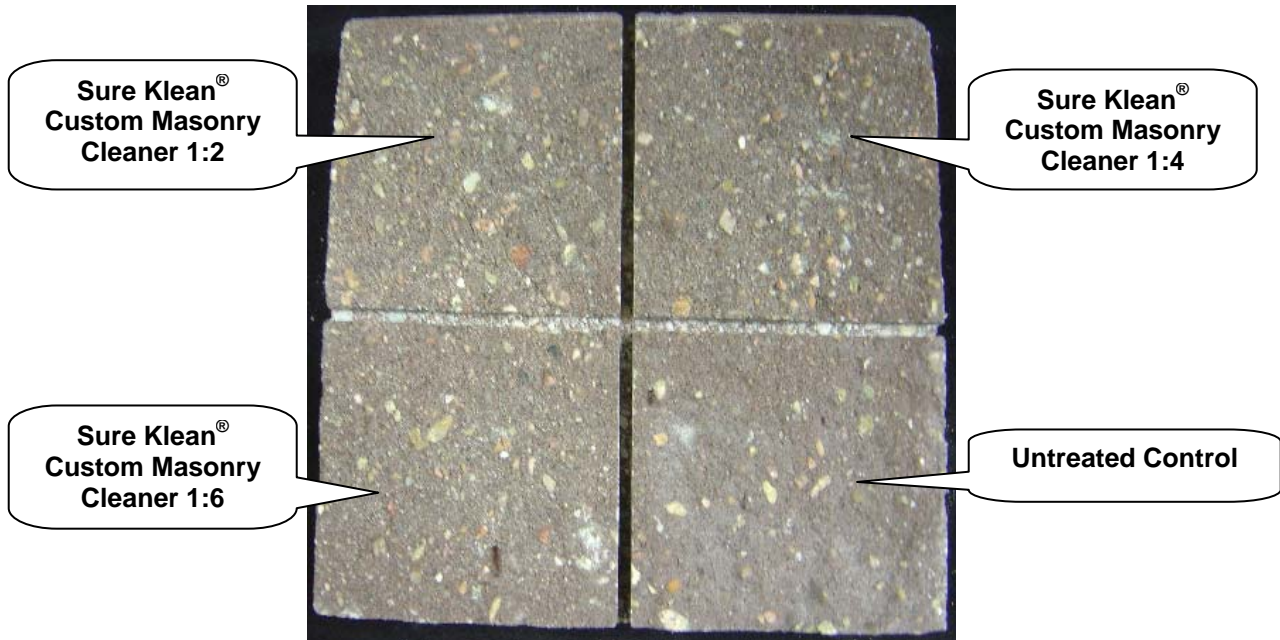


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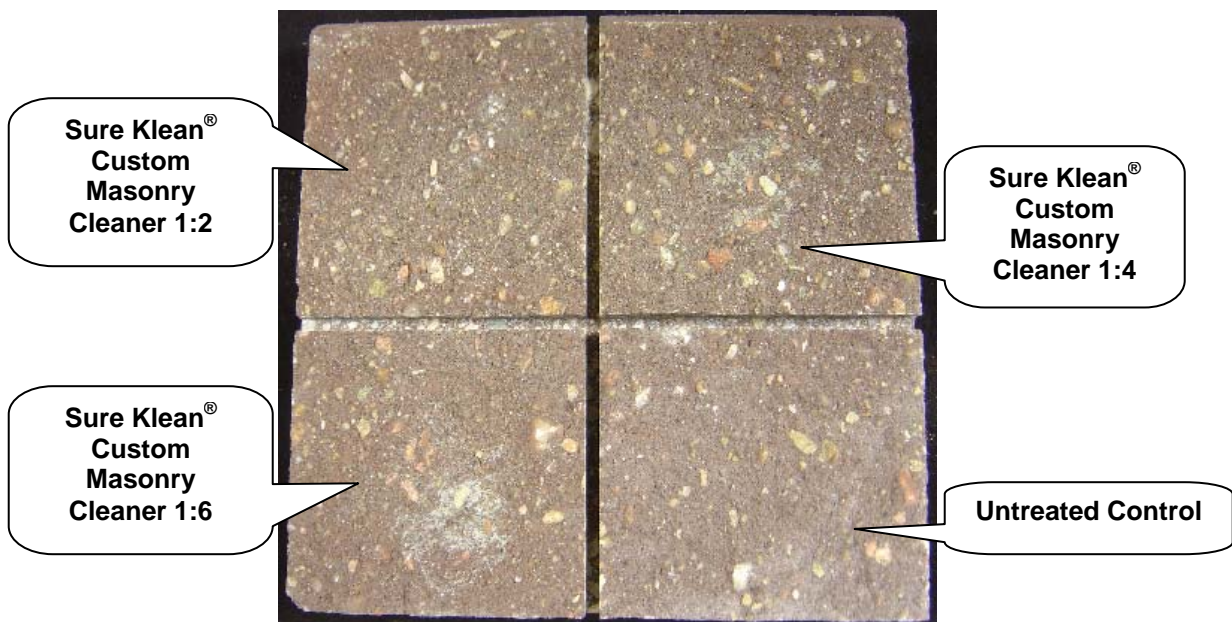


## PHOTOGRAPHS- Cleaning

“Medium Brown” Split-face CMU; 7 Day Cleaning



“Medium Brown” Split-face CMU; 14 Day Cleaning







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## CONCLUSIONS – Cleaning

Based on the test data, all of the submitted samples were efficiently cleaned with a dilution of the selected PROSOCO Inc. cleaning product. Use higher concentrations and surface agitation to maximize aggregate exposure. Use low concentration and surface agitation to minimize aggregate exposure.

All dilutions of Sure Klean® Custom Masonry Cleaner tested affected the substrate in a similar manner, removing slight to heavy concentrations of pigmented matrix from the split-face blocks, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

The dilutions of Sure Klean® Burnished Custom Masonry Cleaner and Enviro Klean® Safety Klean tested on the “Sahara” smooth-face CMU removed slight amounts of pigmented matrix, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

## RECOMMENDED PRODUCTS AND DILUTIONS – CLEANING

Recommendations for cleaning for each type of CMU submitted by Watkins Concrete Block Company, Inc., Omaha, NE, are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar.

<b>Block</b>	<b>New Construction Cleaning (Type S mortar, 14 day)</b>
All Submitted Split-face CMU's	Sure Klean® Custom Masonry Cleaner (1:2) OR (1:4) OR (1:6)
“Sahara” Smooth-face CMU	Sure Klean® Burnished Custom Masonry Cleaner (1:2) OR (1:3) 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. Pressure rinsing equipment providing at least 400 psi at 4-6 gpm delivered through a 15-40 degree fan spray often produces best cleaning 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 cleaning product and procedures for a particular project. See product literature for additional application and product information.



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**SECTION B – COLOR UNIFORMITY:**

**DESCRIPTION OF PRODUCTS EVALUATED – Color Uniformity:**

**NOTE:** It was reported that the “Sahara” CMU has been problematic with new construction cleaners in field tests. Adverse effects have reportedly occurred with several hydrochloric acid cleaners. For this reason, Sure Klean® Burnished Custom Masonry Cleaner and Enviro Klean® Safety Klean were evaluated on the “Sahara” smooth-face CMU’s.

**Sure Klean® Custom Masonry Cleaner** – A general purpose, concentrated acidic cleaner for most custom masonry and colored concrete. Removes concrete splashes, excess mortar, mud, heavy efflorescence and surface soiling, leaving the masonry clean and uniform with no acid burning or streaking. Liquid concentrate for dilution with 2-6 parts water. Apply by brush or low-pressure spray.

**FOR USE ON “SAHARA” CMU’s ONLY:**

**Sure Klean® Burnished Custom Masonry Cleaner** – A general purpose, non-etching acidic cleaner for most custom masonry and colored concrete. Removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture, while also adding depth to colors and brightening white matrices and exposed aggregate. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

**Enviro Klean® Safety Klean** – An effective, safe alternative to acidic compounds for cleaning brick, tile and concrete surfaces. Safety Klean rids new masonry construction of excess mortar, dirt and other common job site soiling. It’s ideal for projects where traditional acidic cleaners are not allowed. Non-fuming Safety Klean contains no hydrochloric or other traditional inorganic acids and is safe for use on and around most metal surfaces, indoors or out. It is up to 70 percent more effective than citric and glycolic acids, and 50 percent more effective than phosphoric acid.

**TEST METHOD – Color Uniformity Testing:**

Dilution ratios refer to mixtures of parts concentrated cleaner: parts fresh water. Chemical cleaners were evaluated using the following procedure:

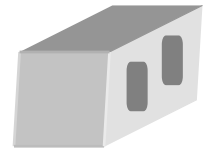
1. Prewet the surface with water.
2. Apply each cleaner at the appropriate dilutions.
3. Allow appropriate dwell time, as specified.
 

Custom Masonry Cleaner.....	3 minutes
Burnished Custom Masonry Cleaner .....	3-5 minutes
Safety Klean .....	3 minutes
4. Reapply the products and moderately agitate with a brush.
5. Pressure rinse thoroughly. \*
6. Allow the sample to dry for at least 18 hours and visually examine.
7. Break the sample in half and compare the through-body surfaces to the cleaned surfaces for the best match.

\*Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.



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**TEST RESULTS – Color Uniformity**

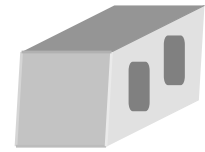
<b>Substrate:</b> Split-face CMU		<b>Pigment Color:</b> “Arctic White”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
<b>Substrate:</b> Split-face CMU		<b>Pigment Color:</b> “Medium Brown”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	3	3
<b>Substrate:</b> Split-face CMU		<b>Pigment Color:</b> “Putty”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
<b>Substrate:</b> Smooth-face CMU		<b>Pigment Color:</b> “Sahara”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	3	3
Safety Klean	1:2	3	3
Safety Klean	1:3	3	3

Scale used for reporting results of both categories

- |  |                                       |
|--|---------------------------------------|
| 0 – <b>Worst</b> match to through-body | 3 – <b>Good</b> match to through-body |
| 1 – <b>Poor</b> match to through-body  | 4 – <b>Best</b> match to through-body |
| 2 – <b>Fair</b> match to through-body  |                                       |

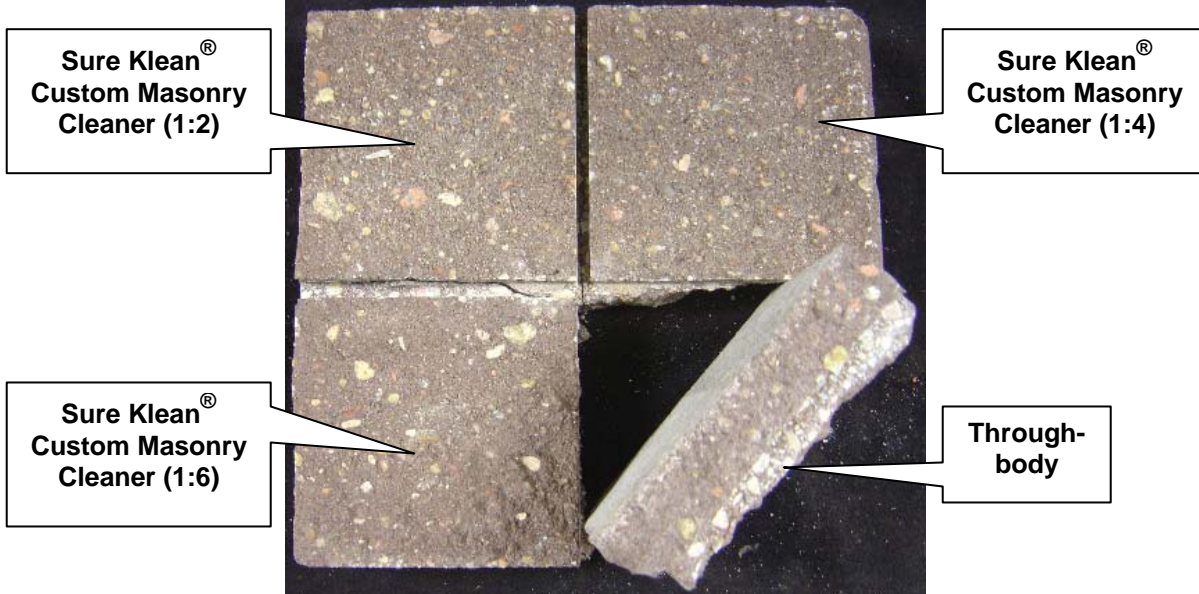


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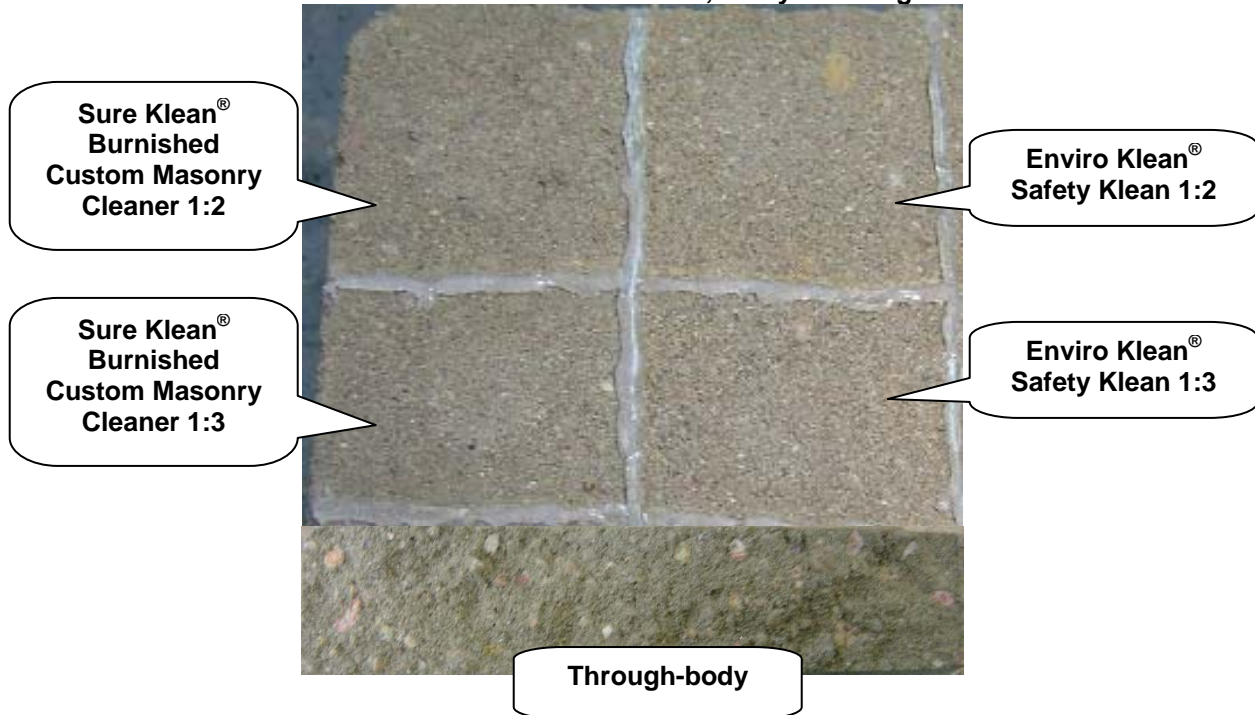


## PHOTOGRAPHS – Color Uniformity

“Medium Brown” Split-face CMU; Through-body



“Sahara” Smooth-face CMU; 3 Day Cleaning





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## CONCLUSIONS: COLOR UNIFORMITY:

Most dilutions of Sure Klean® Custom Masonry Cleaner tested affected the substrate in a similar manner. Higher concentrations of cleaner removed moderate to heavy concentrations of pigmented matrix, exposing small and large aggregate. Lower concentrations of cleaner removed slight to moderate concentrations of pigmented matrix, exposing small and large aggregate. All dilutions enhanced the natural appearance of the integrally colored CMU.

The dilutions of Sure Klean® Burnished Custom Masonry Cleaner and Enviro Klean® Safety Klean tested on the “Sahara” smooth-face CMU affected the substrate in a similar manner by removing slight amounts of pigmented matrix, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

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## RECOMMENDATIONS – COLOR UNIFORMITY

Recommendations for color uniformity for each type of CMU submitted by Watkins Concrete Block Company, Inc., Omaha, NE, are provided in the chart below. Recommendations are based on the optimum dilution that provides the best color uniformity.

<b>Block</b>	<b>Color Uniformity</b>
All Submitted Split-face CMU's	Sure Klean® Custom Masonry Cleaner (1:2) OR (1:4) OR (1:6)
“Sahara” Smooth-face CMU	Sure Klean® Burnished Custom Masonry Cleaner (1:2) OR (1:3) 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. Pressure rinsing equipment providing at least 400 psi at 4-6 gpm delivered through a 15-40 degree fan spray often produces best cleaning 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 cleaning product and procedures for a particular project. See product literature for additional application and product information.



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## **SECTION C – PROTECTIVE WATER REPELLENTS:**

The testing described below evaluates the suitability of water repellent treatments.

The surface treatments evaluated were selected for their suitability for application based on the following selection criteria:

1. Weatherproofing properties
2. Color change
3. Ease of application

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## **DESCRIPTIONS OF PRODUCTS EVALUATED – Protective Water Repellents:**

**Sure Klean® Weather Seal Blok-Guard® and Graffiti Control** – A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, architectural concrete block, pre-cast concrete, wood and porous masonry. Sure Klean® Weather Seal Blok-Guard® and Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering.

**Sure Klean® Weather Seal Siloxane WB Concentrate** – A concentrated water repellent designed for dilution with fresh water at the jobsite. This solvent-free blend of siloxanes and oligomeric alkoxy siloxanes mixes easily with water to produce a penetrating water repellent ideal for application to dense or porous masonry surfaces. An effective alternative to conventional solvent-based silanes or siloxanes, Siloxane WB penetrates and chemically bonds deep within the masonry substrate to provide long-lasting protection against water-related staining or deterioration. Will not darken, produce a surface film or impair the natural breathing characteristics of treated surfaces.

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## **SAMPLE PREPARATION – Protective Water Repellents:**

The submitted blocks were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. The treatment method consisted of a wet-on-wet brush application. All treatments were allowed to cure at least 3 days prior to testing.

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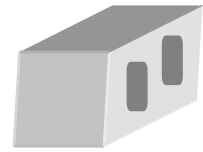
## **TEST METHODS – Protective Water Repellents:**

### **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. See Technical Services TECH Note RILEM Tube Test Procedures.



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**TEST RESULTS – Protective Water Repellents:**

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

<b>"Arctic White" Split-face CMU</b>	<b>RESULTS</b>
Untreated Control	58 mph
Blok-Guard® and Graffiti Control	60 mph
Siloxane WB 1:9	60 mph
<b>"Medium Brown" Split-face CMU</b>	<b>RESULTS</b>
Untreated Control	55 mph
Blok-Guard® and Graffiti Control	60 mph
Siloxane WB 1:9	59 mph
<b>"Putty" Split-face CMU</b>	<b>RESULTS</b>
Untreated Control	58 mph
Blok-Guard® and Graffiti Control	60 mph
Siloxane WB 1:9	59 mph
<b>"Sahara" Smooth-face CMU</b>	<b>RESULTS</b>
Untreated Control	57 mph
Blok-Guard® and Graffiti Control	60 mph
Siloxane WB 1:9	60 mph





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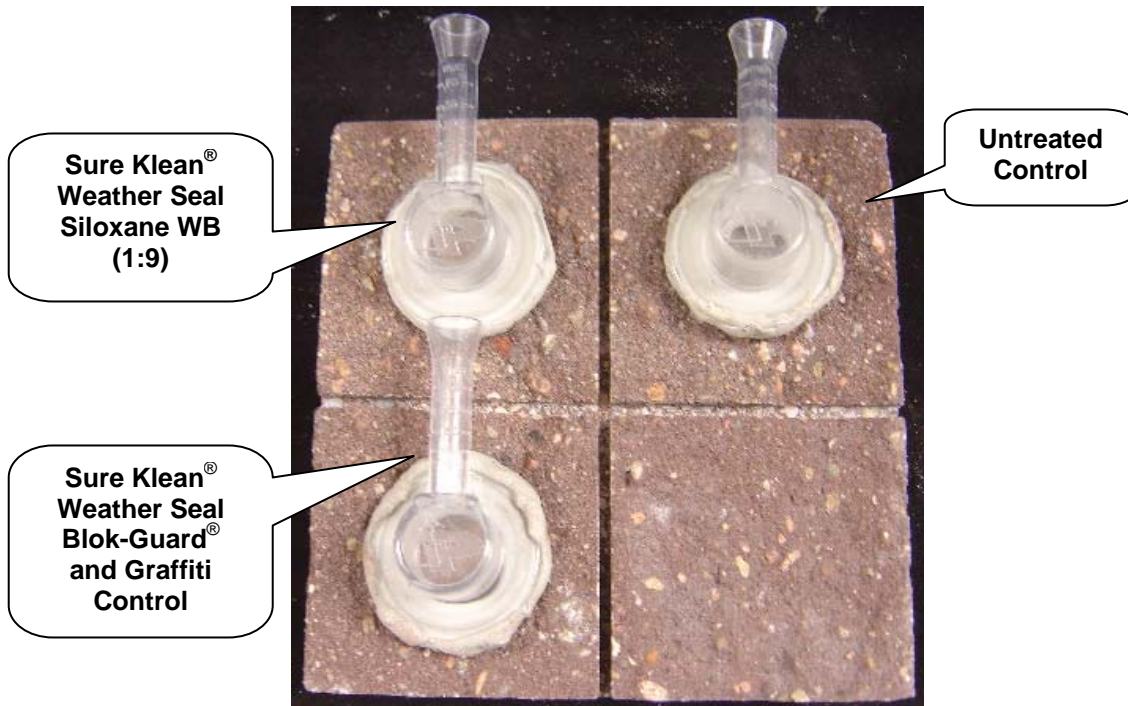


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## PHOTOGRAPHS- Protective Water Repellents

### “Medium Brown” Split-face CMU- RILEM Testing





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## **CONCLUSIONS - Protective Water Repellents**

Based upon laboratory evaluations, Sure Klean® Weather Seal Blok-Guard® and Graffiti Control and Sure Klean® Weather Seal Siloxane WB Concentrate diluted with nine parts water provided excellent water repellency to all submitted samples. In addition, Sure Klean® Weather Seal Blok-Guard® and Graffiti Control enhanced the appearance of each CMU.

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## **RECOMMENDATIONS - PROTECTIVE WATER REPELLENTS**

Recommendations for water repellency treatment for each type of CMU submitted by Watkins Concrete Block Company, Inc., Omaha, NE, are provided in the chart below. Recommendations are based on the treatment that proved most effective and can provide water repellency on all types submitted.

<b>Block Type</b>	<b>Water Repellents</b>
All Submitted CMU's	Sure Klean® Weather Seal Blok-Guard® and Graffiti Control OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)

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



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## SECTION D – GRAFFITI CONTROL

### DESCRIPTION OF PRODUCTS EVALUATED

These trials were conducted to determine the optimal graffiti control treatment.

#### Graffiti Control Treatments

**Sure Klean® Weather Seal Blok-Guard® and Graffiti Control** – A clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry material. Sure Klean® Weather Seal Blok-Guard® and Graffiti Control protects masonry surfaces from repeated graffiti attacks without altering the natural appearance.

#### Products Evaluated for Graffiti Removal

**Defacer Eraser® Graffiti Wipe** – An easy-to-use graffiti remover that does not contain methanol, methylene chloride or other “halogenated” solvents prohibited on many projects. Graffiti Wipe removes a variety of graffiti stains from most smooth masonry, wood and metal surfaces.

**Sure Klean® Fast Acting Stripper** – A thixotropic stripping compound formulated specifically for removal of high strength paints and coatings such as epoxies, polyurethanes, and floor enamels. Additionally, Fast Acting Stripper dissolves most spray paints, marking pens, lacquers and other graffiti.

#### Graffiti Agents

Interior/Exterior Spray Paint (Red)  
Permanent Marker (Green)  
Permanent Marker (Red)  
Permanent Marker (Black)



# PALLET TAG PROGRAM LABORATORY REPORT



## **SAMPLE PREPARATION – Graffiti Control**

This evaluation compares the effectiveness in preventing staining of enamel spray paint and permanent markers.

Sections of the concrete samples were treated with one coat of Sure Klean® Weather Seal Blok-Guard® and Graffiti Control, in accordance with PROSOCO, Inc.'s Product Guide application instructions and then allowed to cure for at least one day. At the end of the one-day cure period, a visual adverse effects evaluation was made and then the graffiti agents were applied to the substrates.

Spray paint and markers were applied as graffiti agents to all treated surfaces no sooner than one day following application of Sure Klean® Weather Seal Blok-Guard® and Graffiti Control. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Defacer Eraser® Graffiti Wipe and Sure Klean® Fast Acting Stripper.

## **TEST METHOD – Graffiti Control**

Chemical cleaners were evaluated using the following procedure:

1. Apply the product to a dry surface, soiled with graffiti.
2. Allow appropriate dwell time:
  - Graffiti Wipe..... 5 minutes
  - Fast Acting Stripper..... 20 minutes
3. Pressure rinse thoroughly until water runs clear. \*
4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

\* Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.



# PALLET TAG PROGRAM LABORATORY REPORT



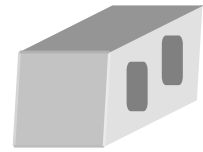
**TEST RESULTS – Graffiti Control**

% Removal

<b>“Arctic White” Split-face CMU</b>					
<b>Untreated Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	70%	85%	40%	40%	<b>59%</b>
Graffiti Wipe	70%	20%	40%	40%	<b>43%</b>
<b>Blok-Guard® and Graffiti Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	95%	95%	95%	90%	<b>94%</b>
Graffiti Wipe	95%	100%	95%	90%	<b>95%</b>
<b>“Medium Brown” Split-face CMU</b>					
<b>Untreated Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	90%	100%	95%	95%	<b>95%</b>
Graffiti Wipe	80%	80%	95%	95%	<b>88%</b>
<b>Blok-Guard® and Graffiti Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	95%	100%	100%	100%	<b>99%</b>
Graffiti Wipe	95%	100%	100%	100%	<b>99%</b>
<b>“Putty” Split-face CMU</b>					
<b>Untreated Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	70%	85%	40%	40%	<b>59%</b>
Graffiti Wipe	70%	35%	40%	40%	<b>46%</b>
<b>Blok-Guard® and Graffiti Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	85%	100%	95%	90%	<b>93%</b>
Graffiti Wipe	95%	100%	95%	90%	<b>95%</b>
<b>“Sahara” Smooth-face CMU</b>					
<b>Untreated Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	80%	90%	40%	40%	<b>63%</b>
Graffiti Wipe	80%	20%	40%	40%	<b>45%</b>
<b>Blok-Guard® and Graffiti Control</b>	<b>Red Paint</b>	<b>Black Marker</b>	<b>Green Marker</b>	<b>Red Marker</b>	<b>% Avg. Removal</b>
Fast Acting Stripper	99%	100%	100%	100%	<b>100%</b>
Graffiti Wipe	99%	100%	100%	100%	<b>100%</b>

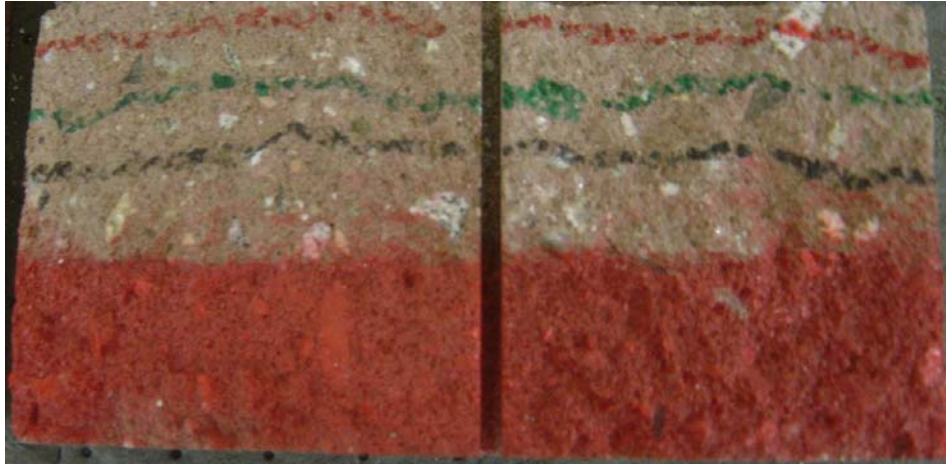


# PALLET TAG PROGRAM LABORATORY REPORT



## PHOTOGRAPHS – Graffiti Control

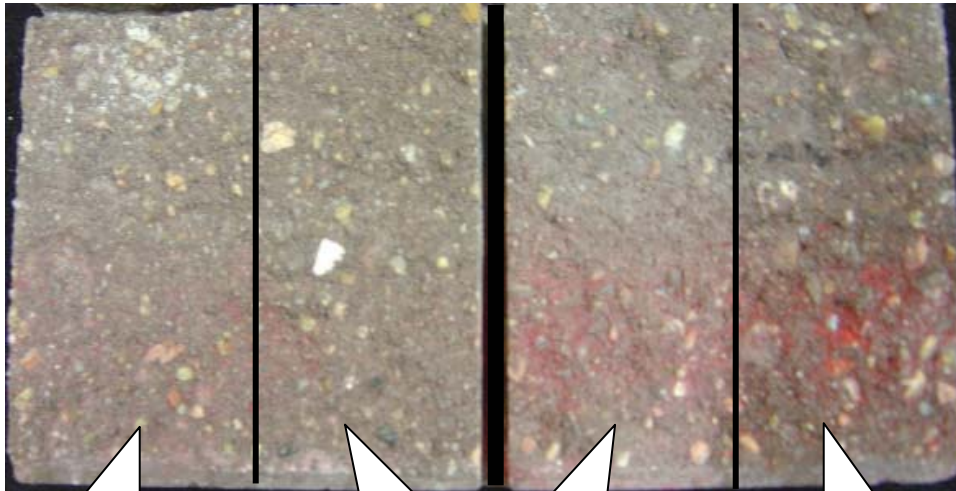
“Medium Brown” Split-face CMU Before Graffiti Removal



Sure Klean® Weather Seal  
Blok-Guard® and Graffiti  
Control

Untreated  
Control

“Medium Brown” Split-face CMU After Graffiti Removal



Sure Klean® Fast  
Acting Stripper

Defacer Eraser®  
Graffiti Wipe

Sure Klean® Fast  
Acting Stripper

Defacer Eraser®  
Graffiti Wipe

Sure Klean® Weather Seal  
Blok-Guard® and Graffiti  
Control

Untreated Control



# PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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## CONCLUSIONS – Graffiti Control

Based upon laboratory evaluations, graffiti removal was improved when the submitted samples were treated with Sure Klean® Weather Seal Blok-Guard® and Graffiti Control prior to graffiti application. In addition, Sure Klean® Weather Seal Blok-Guard® and Graffiti Control enhanced the appearance of the CMU's.

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## RECOMMENDATIONS – GRAFFITI CONTROL

Recommendations for graffiti control treatment for each type of CMU submitted by Watkins Concrete Block Company, Inc., Omaha, NE, are provided in the chart below. Recommendations are based on the treatment that proved most effective for providing graffiti repellency and the product that was most effective at removing the graffiti on all types submitted.

Block Type	Graffiti Repellent	Graffiti Removers
All Submitted CMU's	Sure Klean® Weather Seal Blok-Guard® and Graffiti Control	Sure Klean® Fast Acting Stripper OR Defacer Eraser® Graffiti Wipe

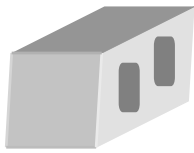
Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. Because the severity of graffiti varies from location to location, on-site testing should be conducted to determine the most appropriate graffiti control product and procedure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

For the most severe graffiti cases Sure Klean® Fast Acting Stripper is recommended for job-site testing. For mild graffiti cases, Defacer Eraser® Graffiti Wipe is recommended for job-site testing. See product literature for additional application and product information.

Christopher A. Moore  
Project Testing Laboratory Technician

CAM





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***Laboratory Report***

**Pallet Tag Program Evaluation**

**Watkins Concrete Block Company, Inc.  
Omaha, NE**

***Project No. 0411-02 PTP***

***Prepared For:***

**Watkins Concrete Block Company, Inc.  
14306 Giles Rd.  
Omaha, NE 68138**

***Prepared By:***



***PROSOCO, Inc.  
January 2005***