



### PROSOCO, Inc.

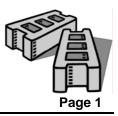
### TABLE OF CONTENTS

Submitted Information	1
Purpose of Testing	2
Products Evaluated	
New Construction Cleaning	
Description of Products Evaluated – New Construction Cleaning	
Test Method – New Construction Cleaning	
Test Results – New Construction Cleaning	
Test Results – Limiting Surface Alterations	
Photographs – New Construction Cleaning	
Photographs – Limiting Surface Alterations	
Conclusions – New Construction Cleaning	
Recommendations – New Construction Cleaning	
Protective Water Repellents	
Description of Products Evaluated – Protective Water Repellents	
Sample Preparation – Protective Water Repellents	
Test Methods – Protective Water Repellents	
Test Results – Protective Water Repellents	
Photographs – Protective Water Repellents	
Conclusions – Protective Water Repellents	
Recommendations – Protective Water Repellents	
Graffiti Control	
Description of Products Evaluated – Graffiti Control	
Sample Preparation – Graffiti Control	
Test Method – Graffiti Control	
Test Results – Graffiti Control	
Photographs – Graffiti Control	
Conclusions – Graffiti Control	
Recommendations – Graffiti Control	

#### Attachments

Technical Services TECH Note RILEM Tube Test Procedures Product Data literature for all products evaluated





### **Submitted Information**

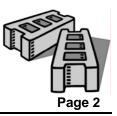
For: cc:	James Holt Paul Tessier
Subject:	Louisville Brick Company, Inc. Louisville, MS
Date:	May 24, 2005
Project:	0502-12 PTP

### Samples Submitted: 7 types of clay brick

Name	Finish	Color/Coating	Size
"Concord"	Engobe	Red w/ White Coating	8" x 3" x 2¾"
"Lexington"	Sand/Slurry	Red w/ Red Sand	8" x 3" x 2¾"
"Old Birmingham"	Sand/Slurry	Red w/ Brown Sand	8" x 3" x 2¾"
"Old Choctaw"	Sand/Slurry	Red w/ Brown Sand	8" x 3" x 2¾"
"Red Scratch"	Scratch-face	Red	8" x 3" x 2¾"
"Richmond"	Sand/Slurry	Red w/ Red Sand	8" x 3" x 2¾"
"Santa Rosa"	Sand/Slurry	Red With Pink Sand	8" x 3" x 2¾"

Submitted by: James Holt





### Purpose of Testing

Seven types of clay brick were submitted to PROSOCO, Inc.'s Testing Laboratory with a request to determine if application of the products evaluated will produce any surface alteration during new construction cleaning operations.

**New Construction Cleaning** – Enviro Klean<sup>®</sup> Safety Klean and either Sure Klean<sup>®</sup> Vana Trol<sup>®</sup> or Sure Klean<sup>®</sup> 600 Detergent were tested at various dilutions to determine the optimal cleaning/cure time combination to most efficiently remove Type N mortar from the submitted fired clay brick while limiting surface alterations to the decorative finish. The surface alteration evaluation was visually determined based upon perceived discoloration or erosion/etching of the clay brick.

To simulate new construction soiling, all samples were placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall were positioned on top of each brick and filled with a wet mixture of Type N cementitious mortar. The wet mortar-filled cylinder was allowed to remain in contact with the brick for 10 minutes before removal. Soiled brick were allowed to dry before test cleaning.

Heavy deposits of mortar were removed with dry scraping after 24 hours. Prepared cleaning solutions were then evaluated for their effectiveness in removing any residual Type N mortar after 7, 14, and 21 days of curing. A visual examination was also made to determine if the tested cleaners caused any surface alterations to the submitted clay brick based on the following:

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

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

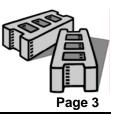
<u>Color Change</u> is the visual examination comparing the color of the untreated control surface to color of surfaces cleaned with selected products at given dilutions.

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

**Water Repellent Evaluation** – Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control and Sure Klean<sup>®</sup> Weather Seal Siloxane PD were evaluated on the submitted samples for their ability to provide water repellency.

**Graffiti Repellency Evaluation** – Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control was evaluated for its ability to provide graffiti control. Sure Klean<sup>®</sup> Fast Acting Stripper and Defacer Eraser<sup>®</sup> Graffiti Wipe were evaluated for their ability to remove graffiti.





### **Products Evaluated**

### **Products Evaluated for New Construction Cleaning**

Sample	Treatment	Dilution
"Concord" "Lexington" "Old Birmingham"	Enviro Klean <sup>®</sup> Safety Klean	1:2, 1:3
"Old Choctaw" "Richmond" "Santa Rosa"	Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6, 1:8
"Red Scratch"	Enviro Klean <sup>®</sup> Safety Klean	1:2, 1:3
Neu Schalch	Sure Klean <sup>®</sup> 600 Detergent	1:6, 1:8

#### **Protective Water Repellent Products Evaluated**

Sample	Treatment	Dilution
All Submitted Clay Brick	Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	Concentrate
	Sure Klean <sup>®</sup> Weather Seal Siloxane PD	Concentrate

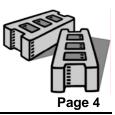
### **Graffiti Repellents Evaluated**

Sample	Treatment	Dilution
All Submitted Clay Brick	Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	Concentrate

#### **Graffiti Repellents Evaluated**

Sample	Treatment	Dilution
All Submitted Clay Brick	Sure Klean <sup>®</sup> Fast Acting Stripper	Concentrate
All Submitted Clay Blick	Defacer Eraser <sup>®</sup> Graffiti Wipe	Concentrate





#### **New Construction Cleaning**

These cleaning trials were conducted to determine the optimal cleaning/cure time combination to most efficiently remove Type N mortar from the submitted fired clay brick while limiting surface alterations to the decorative finish.

Type N mortar was prepared in compliance with the manufacturer's instructions, applied to the brick surface and allowed to cure for 7, 14 and 21 days. Mortar removal was accomplished using chemical assistance and a high-pressure water rinse with pressure rinsing equipment. The removal of Type N masonry mortar was visually evaluated after 7, 14 and 21 days of curing. A visual examination was also made to determine if the tested cleaners caused any surface alterations to the submitted clay brick.

#### **Description of Products Evaluated – New Construction Cleaning**

**Enviro Klean**<sup>®</sup> **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. Always test. Additionally, it is up to 70 percent more effective than citric and glycolic acids, and 50 percent more effective than phosphoric acid.

**Sure Klean<sup>®</sup> Vana Trol<sup>®</sup>** – A concentrated acidic cleaner for new masonry surfaces that are subject to vanadium, manganese and other metallic stains. Use on: gray, brown, white, and most light-colored brick; natural stone; cast stone. Dissolves mortar smears and construction dirt quickly, leaving the masonry clean and uniform with no acid burning or streaking. Liquid concentrate for dilution with 4-10 parts water. Apply by brush or low-pressure spray.

**Sure Klean<sup>®</sup> 600 Detergent** – A general purpose, concentrates acidic cleaner for brick, tile and concrete surfaces. 600 Detergent dissolves mortar smears and construction dirt quickly, leaving the masonry clean and uniform with no acid burning or streaking.

#### Test Method – New Construction Cleaning

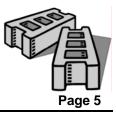
Dilution ratios refer to mixtures of concentrated cleaner : fresh water. Chemical cleaners were evaluated using the following procedure:

- 1. Pre-wet the surface with water.
- 2. Apply the cleaner.

3.	Allow the appropriate dwell time, as specified.	
	Vana Trol <sup>®</sup>	3-5 minutes
	600 Detergent	
	Safety Klean	
4.	Pressure rinse thoroughly	

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



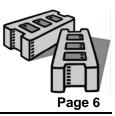


### Test Results - New Construction Cleaning

### <u>% removal</u>

	"Concore	d"		
Product	Dilution	7 day	14 day	21 day
Enviro Klean <sup>®</sup> Safety Klean	1:2	100%	100%	100%
Enviro Riean Salety Riean	1:3	100%	100%	100%
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	100%	100%	100%
Sure Riean Vana 110	1:8	100%	100%	100%
	"Lexingto	n"		
Product	Dilution	7 day	14 day	21 day
Enviro Klean <sup>®</sup> Safety Klean	1:2	100%	100%	100%
Enviro Riean Salety Riean	1:3	100%	99%	99%
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	100%	100%	100%
Sure Klean Vana Iroi	1:8	100%	99%	100%
"	Old Birming	Jham"		
Product	Dilution	7 day	14 day	21 day
Enviro Klean <sup>®</sup> Safety Klean	1:2	100%	100%	100%
Enviro Riean Salety Riean	1:3	100%	100%	100%
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	100%	100%	100%
Sure Klean Vana Iroi	1:8	100%	100%	100%
	"Old Choct	aw"		
Product	Dilution	7 day	14 day	21 day
Enviro Klean <sup>®</sup> Safety Klean	1:2	100%	98%	100%
Enviro Riedin Galety Riedin	1:3	100%	98%	95%
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	100%	99%	100%
Sure Riean Valla 110	1:8	100%	99%	95%
	"Red Scrat	ch"		
Product	Dilution	7 day	14 day	21 day
Enviro Klean <sup>®</sup> Safety Klean	1:2	100%	99%	99%
LINIO Riean Salety Riean	1:3	99%	99%	99%
Sure Klean <sup>®</sup> 600 Detergent	1:6	100%	99%	100%
Sure Riean 600 Detergent	1:8	100%	99%	99%
	"Richmon	d"		
Product	Dilution	7 day	14 day	21 day
Enviro Klean <sup>®</sup> Safety Klean	1:2	99%	98%	98%
	1:3	98%	98%	98%
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	100%	99%	99%
	1:8	98%	98%	95%
	"Santa Ro	sa"		
Product	Dilution	7 day	14 day	21 day
Enviro Klean <sup>®</sup> Safety Klean	1:2	100%	100%	100%
LINIU RIEdii Salety Riedii	1:3	100%	100%	100%
	1:6	100%	99%	100%
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:8	100%	99%	100%

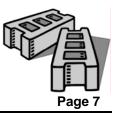




### Test Results – Limiting Surface Alterations

Substrate: Clay Brick	ick Pigment Color: "Concord"						
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining		
Enviro Klean <sup>®</sup> Safety Klean	1:2	2	0	0	0		
Enviro Klean <sup>®</sup> Safety Klean	1:3	2	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	2	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:8	2	0	0	0		
Substrate: Clay Brick	Pigment Co	olor: "Lexington"					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining		
Enviro Klean <sup>®</sup> Safety Klean	1:2	0	0	0	0		
Enviro Klean <sup>®</sup> Safety Klean	1:3	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:8	0	0	0	0		
Substrate: Clay Brick	Pigment Co	olor: "Old Birming	jham"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining		
Enviro Klean <sup>®</sup> Safety Klean	1:2	0	0	0	0		
Enviro Klean <sup>®</sup> Safety Klean	1:3	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:8	0	0	0	0		
Substrate: Clay Brick	Pigment Co	olor: "Old Chocta	W"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining		
Enviro Klean <sup>®</sup> Safety Klean	1:2	0	0	0	0		
Enviro Klean <sup>®</sup> Safety Klean	1:3	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:8	0	0	0	0		
Substrate: Clay Brick	Pigment Co	olor: "Red Scratcl	h"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining		
Enviro Klean <sup>®</sup> Safety Klean	1:2	0	0	0	0		
Enviro Klean <sup>®</sup> Safety Klean	1:3	0	0	0	0		
Sure Klean <sup>®</sup> 600 Detergent	1:6	0	0	0	0		
Sure Klean <sup>®</sup> 600 Detergent	1:8	0	0	0	0		
Substrate: Clay Brick	Pigment Co	olor: "Richmond"					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining		
Enviro Klean <sup>®</sup> Safety Klean	1:2	0	0	0	0		
Enviro Klean <sup>®</sup> Safety Klean	1:3	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	0	0	0	0		
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:8	0	0	0	0		
1 – cha	ange – slight	4 – chang			0 - No change3 - change - heavy1 - change - slight4 - change - excessive2 - change - moderate		





### Test Results – Limiting Surface Alterations (Continued)

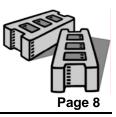
Substrate: Clay Brick	Pigment Co	Pigment Color: "Santa Rosa"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean <sup>®</sup> Safety Klean	1:2	0	0	0	0
Enviro Klean <sup>®</sup> Safety Klean	1:3	0	0	0	0
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:6	0	0	0	0
Sure Klean <sup>®</sup> Vana Trol <sup>®</sup>	1:8	0	0	0	0

0 – No change 1 – change – slight 3 - change - heavy

4 - change - excessive

2 – change – moderate





### Photographs – New Construction Cleaning

"Red Scratch" Clay Brick; 7 Day Cleaning



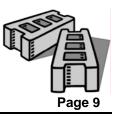
### "Red Scratch" Clay Brick; 14 Day Cleaning



### "Red Scratch" Clay Brick; 21 Day Cleaning





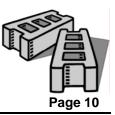


### **Photographs – Limiting Surface Alterations**

"Red Scratch" Clay Brick; Limiting Surface Alterations







#### **Conclusions** – New Construction Cleaning

Based on the test results, all PROSOCO, Inc. products tested performed well in removing excess mortar from the submitted clay brick even after allowing the mortar to remain on the surface of the brick for 21 days. In addition, test results indicate that the evaluated cleaners caused no noticeable surface alterations on any of the submitted clay brick except "Concord." \*

**\*NOTE:** Both Enviro Klean<sup>®</sup> Safety Klean and Sure Klean<sup>®</sup> Vana Trol<sup>®</sup>, combined with surface agitation, did remove a moderate amount of the white engobe surface finish from the submitted "Concord" clay brick. Therefore, no cleaning recommendations can be made at this time.

It is recommended that the selected cleaners always be used in the lowest possible concentration. They should be rinsed with the lowest pressure of water as practical to minimize removal of the decorative finish. Excessive pressure and water volume may combine to damage or remove decorative finishes. To facilitate easier removal of excess mortar while minimizing any potential surface alterations to the decorative finish, clean within 7 days of construction.

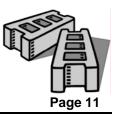
#### **Recommendations** – New Construction Cleaning

Recommendations for cleaning for each type of clay brick submitted by Louisville Brick Company, Inc., Louisville, MS are provided in the charts below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations.

Type of Brick	New Construction Cleaning (Type N mortar, 21 day cleaning)
"Lexington" "Old Birmingham" "Old Choctaw" "Richmond" "Santa Rosa"	Enviro Klean <sup>®</sup> Safety Klean (1:2) OR (1:3) OR Sure Klean <sup>®</sup> Vana Trol <sup>®</sup> (1:6) OR (1:8)
"Red Scratch"	Enviro Klean <sup>®</sup> Safety Klean (1:2) OR (1:3) OR Sure Klean <sup>®</sup> 600 Detergent (1:6) OR (1:8)
"Concord"	No Recommendations (see NOTE in Conclusions section above)

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





### **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

#### **Description of Products Evaluated** – Protective Water Repellents

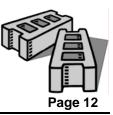
**Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control** – A clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry materials. Blok-Guard<sup>®</sup> & Graffiti Control protects masonry surfaces from repeated graffiti attacks without altering the natural appearance. Blok-Guard<sup>®</sup> & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering. Graffiti removal is fast and easy using Defacer Eraser<sup>®</sup> Graffiti Wipe. Blok-Guard<sup>®</sup> & Graffiti Control is easy to apply with low-pressure spray, brush or roller.

**Sure Klean<sup>®</sup> Weather Seal Siloxane PD** – A ready-to-use, water-based silane/siloxane water repellent for concrete, GFRC, and most masonry and stucco surfaces. Siloxane PD penetrates more deeply than conventional water repellents. It helps masonry resist cracking, spalling, staining and other damage related to water intrusion. Low odor and alkaline stable, Siloxane PD is ideal for field and in-plant application.

#### Sample Preparation – Protective Water Repellents

The submitted brick were cut, air-dried, and allowed to reabsorb atmospheric humidity for at least 24 hours prior to treatment. Both treatments were applied by brush in accordance with the 2005 PROSOCO, Inc. Product Guide. Both treatments were allowed to cure for at least 3 days 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 and wind blown rain conditions was performed. Tests were run with 5.0-milliliter head pressures. Filled to 5 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.

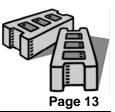
**EXAMPLE:** If RILEM tubes applied to an untreated sample result in loss of 5 ml of water or more, then:

A rating of <u>AA</u> Above Average water repellent performance would require loss of no more than 5 ml X 20% = 1 ml.

A rating of <u>A</u> Average water repellent performance would require loss of no more than 5 ml X 50% = 2.5ml.

A rating of <u>**BA**</u> Below Average water repellent performance would be reported for treatments which result in a loss of more than 50% X 5ml = 2.5ml+.





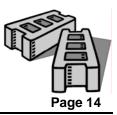
### Test Results - Protective Water Repellents

Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 2	20 minutes
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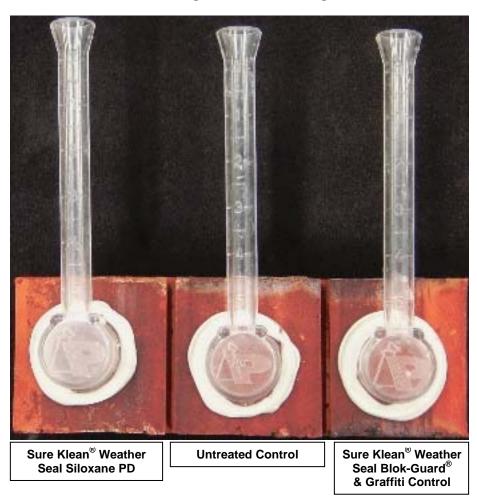
<u>AA</u> = Above Average	<u>A</u> = Average	<u>BA</u> = Below Average
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"Concord"	Results in mL loss	Ranking
Untreated Control	-3.1	
Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	-0.0	AA
Sure Klean <sup>®</sup> Weather Seal Siloxane PD	-0.0	AA
"Lexington"	Results in mL loss	Ranking
Untreated Control	-0.7	
Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	-0.0	AA
Sure Klean <sup>®</sup> Weather Seal Siloxane PD	-0.0	AA
"Old Birmingham"	Results in mL loss	Ranking
Untreated Control	-2.2	
Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	-0.0	AA
Sure Klean <sup>®</sup> Weather Seal Siloxane PD	-0.0	AA
"Old Choctaw"	Results in mL loss	Ranking
Untreated Control	-5.0	
Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	-0.2	AA
Sure Klean <sup>®</sup> Weather Seal Siloxane PD	-0.6	<u>AA</u>
"Red Scratch"	Results in mL loss	Ranking
Untreated Control	-2.4	
Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	-0.0	AA
Sure Klean <sup>®</sup> Weather Seal Siloxane PD	-0.1	<u>AA</u>
"Richmond"	Results in mL loss	Ranking
Untreated Control	-2.4	
Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	-0.0	AA
Sure Klean <sup>®</sup> Weather Seal Siloxane PD	-0.1	AA
"Santa Rosa"	Results in mL loss	Ranking
Untreated Control	-1.0	
Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	-0.0	AA
Sure Klean <sup>®</sup> Weather Seal Siloxane PD	-0.7	AA



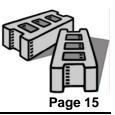


### Photographs – Protective Water Repellents



"Lexington"; RILEM Testing





#### **Conclusions – Protective Water Repellents**

Test results indicate that both treatments evaluated exhibited above average water repellency on all submitted clay brick. In addition, Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control enhanced the appearance of the clay brick.

#### <u>Recommendations</u> – Protective Water Repellents

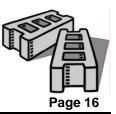
Recommendations for water repellent treatments for each type of clay brick submitted by Louisville Brick Company, Inc., Louisville, MS are provided in the chart below. Recommendations are based on the treatments that proved most effective and can provide water repellency on all types indicated.

Sample	Water Repellents	
All Submitted Clay Brick	Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control OR Sure Klean <sup>®</sup> Weather Seal Siloxane PD	

It must be pointed out that in any installation, the brick are a single component of the masonry facade. The ability of a water repellent treatment to prevent the ingress of water is affected by a variety of other 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 water repellent product and procedures for a particular project. See product literature for additional application and product information.





### **Graffiti Control**

These trials were conducted to determine the optimal graffiti control treatment for the submitted clay brick samples.

### Description of Products Evaluated – Graffiti Control

#### Graffiti Control Treatments

**Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control** – A clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry materials. Blok-Guard<sup>®</sup> & Graffiti Control protects masonry surfaces from repeated graffiti attacks without altering the natural appearance. Blok-Guard<sup>®</sup> & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering. Graffiti removal is fast and easy using Defacer Eraser<sup>®</sup> Graffiti Wipe. Blok-Guard<sup>®</sup> & Graffiti Control is easy to apply with low-pressure spray, brush or roller.

#### Products Evaluated for Graffiti Removal

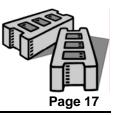
**Sure Klean<sup>®</sup> Fast Acting Stripper** – A thixotropic stripping compound formulated specifically for removal of high strength paints and coatings such as epoxies, polyurethanes, and floor enamels. Additionally, Fast Acting Stripper dissolves most spray paints, marking pens, lacquers and other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

**Defacer Eraser**<sup>®</sup> **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, split-face concrete block, wood and metal surfaces.

#### Graffiti Agents

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





### Sample Preparation – Graffiti Control

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

Sections of the clay brick samples were treated with Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control in accordance with PROSOCO, Inc.'s Product Guide application recommendations 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<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Defacer Eraser<sup>®</sup> Graffiti Wipe and Sure Klean<sup>®</sup> Fast Acting Stripper.

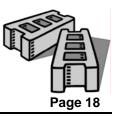
#### Test Method – Graffiti Control

Chemical cleaners were evaluated using the following procedure:

- 1. Apply the product to a dry surface, soiled with graffiti.
- 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.



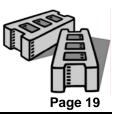


### Test Results – Graffiti Control

		"Concord"			
Untreated Control	<b>Red Paint</b>	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	100%	100%	100%	96%
Graffiti Wipe	85%	70%	99%	100%	89%
Blok-Guard <sup>®</sup> & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	90%	95%	100%	100%	96%
· · · · · · · · · · · · · · · · · · ·		"Lexington"	3		
Untreated Control	Red Paint		Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	95%	100%	99%
Graffiti Wipe	100%	100%	95%	100%	99%
Blok-Guard <sup>®</sup> & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
		Old Birmingh			
Untreated Control	Red Paint		Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	90%	90%	94%
Graffiti Wipe	90%	100%	90%	90%	93%
Blok-Guard <sup>®</sup> & Graffiti Control	Red Paint		Green Marker		
Fast Acting Stripper	100%	100%	95%	95%	<u>98%</u>
Graffiti Wipe	100%	100%	95%	95%	98%
Graniti wipe	100%			95%	98%
		"Old Choctav			
Untreated Control	Red Paint		Green Marker		<u> </u>
Fast Acting Stripper	80%	100%	85%	95%	90%
Graffiti Wipe	80%	90%	90%	95%	89%
Blok-Guard <sup>®</sup> & Graffiti Control			Green Marker		<u> </u>
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	90%	100%	100%	100%	98%
		"Red Scratch	า"		
Untreated Control	<b>Red Paint</b>	<b>Black Marker</b>	Green Marker	<b>Red Marker</b>	% Avg. Removal
Fast Acting Stripper	95%	100%	70%	100%	91%
Graffiti Wipe	95%	90%	70%	90%	86%
Blok-Guard <sup>®</sup> & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	95%	100%	99%
Graffiti Wipe	100%	95%	95%	100%	98%
· · · · · · · · · · · · · · · · · · ·		"Richmond	,		
Untreated Control	Red Paint		Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	100%	85%	100%	93%
Graffiti Wipe	85%	90%	85%	100%	90%
Blok-Guard <sup>®</sup> & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
	10070			10070	100 /8
"Santa Rosa"					
Untreated Control	Red Paint	Black Marker			% Avg. Removal
Fast Acting Stripper	70%	90%	60%	90%	78%
Graffiti Wipe	60%	60%	70%	50%	60%
Blok-Guard <sup>®</sup> & Graffiti Control	Red Paint	Black Marker	Green Marker		% Avg. Removal
Fast Acting Stripper	90%	99%	90%	95%	94%
Graffiti Wipe	90%	70%	90%	95%	86%

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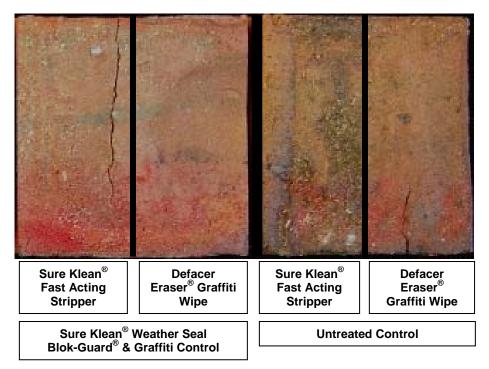


### Photographs - Graffiti Control

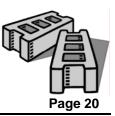
"Old Choctaw"; Graffiti Applied











#### Conclusions – Graffiti Control

Based upon laboratory evaluations, graffiti removal was improved when the submitted samples were treated with Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control prior to graffiti application. In addition, Sure Klean<sup>®</sup> Weather Seal Blok-Guard<sup>®</sup> & Graffiti Control enhanced the appearance of the clay brick samples.

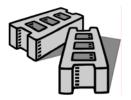
#### Recommendations – Graffiti Control

Recommendations for graffiti control treatment for each type of clay brick submitted by Louisville Brick Company, Inc., Louisville, MS 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 of clay brick submitted.

Sample	Graffiti Repellents	Graffiti Removers
All Submitted Clay Brick	Sure Klean <sup>®</sup> Weather Seal Blok-Guard <sup>®</sup> & Graffiti Control	Sure Klean <sup>®</sup> Fast Acting Stripper OR Defacer Eraser <sup>®</sup> 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. See product literature for additional application and product information.

Christopher A. Moore Project Testing Laboratory Technician CAM



Laboratory Report

**Pallet Tag Program Evaluation** 

# Louisville Brick Company, Inc. Louisville, MS

Project No. 0502-12 PTP

**Prepared For:** 

Louisville Brick Company, Inc. P.O. Box 420 Louisville, MS 39339

**Prepared By:** 

PROSOCO, Inc. May 2005