



PALLET TAG PROGRAM LABORATORY REPORT

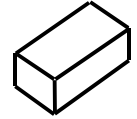


TABLE OF CONTENTS

SAMPLES SUBMITTED 2

PURPOSE OF TEST 3

PRODUCTS EVALUATED..... 4-5

SECTION A – NEW CONSTRUCTION CLEANING

DESCRIPTION OF PRODUCTS EVALUATED..... 6

TEST METHOD 6

TEST RESULTS 7-8

PHOTOGRAPH..... 9

CONCLUSIONS..... 10

RECOMMENDATIONS..... 10

SECTION B – LIMITING SURFACE ALTERATIONS

DESCRIPTION OF PRODUCTS EVALUATED..... 11

TEST METHOD 11

TEST RESULTS 12-14

CONCLUSIONS..... 15

RECOMMENDATIONS..... 15

SECTION C - PROTECTIVE WATER REPELLENTS

DESCRIPTION OF PRODUCTS EVALUATED..... 16

TEST METHODS 17

TEST RESULTS 18-19

PHOTOGRAPH..... 20

CONCLUSIONS..... 21

RECOMMENDATIONS..... 21

SECTION D – GRAFFITI REPELLENCY

DESCRIPTION OF PRODUCTS EVALUATED..... 22

TEST METHOD 23

TEST RESULTS 24-26

PHOTOGRAPH..... 27

CONCLUSIONS..... 28

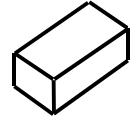
RECOMMENDATIONS..... 28

ATTACHMENTS

- Technical Services TECH Note RILEM Test Method No. II.4
- Product Data literature for all products evaluated



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 2

FOR: James Holt
cc: Paul Tessier

SUBJECT: Henry Brick Company, Inc. (FINAL Report)
Selma, AL

DATE: March 28, 2005

PROJECT: 0502-13 PTP

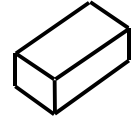
SAMPLES SUBMITTED: 9 types of vertical clay brick

Brick Type	Finish	Size
"Breckinridge"	Sand	7 5/8" x 3 5/8" x 2 1/4"
"Brunswick"	Sand	7 5/8" x 3 5/8" x 2 1/4"
"Hartford"	Sand	7 5/8" x 3 5/8" x 2 1/4"
"Madison"	Sand	7 5/8" x 3 5/8" x 2 1/4"
"Ole Cahaba"	Sand	7 5/8" x 3 5/8" x 2 1/4"
"Ole English"	Sand	7 5/8" x 2 3/4" x 2 3/4"
"Ole Virginian"	Sand	7 5/8" x 3 5/8" x 2 1/4"
"Princeton"	Sand	7 5/8" x 3 5/8" x 2 1/4"
"Providence"	Sand	7 5/8" x 3 5/8" x 2 1/4"

Submitted by: James Holt



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 3

PURPOSE OF TESTING:

Nine types of vertical 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. Additionally, the effectiveness of water repellents and graffiti repellents suitable for clay brick were evaluated.

A. New Construction Cleaning – Enviro Klean® Safety Klean, Sure Klean® 600 Detergent and/or Sure Klean® Vana Trol® were evaluated for removal of laboratory applied mortar.

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 residual Type N mortar after 7, 14, and 21 days of curing (when not enough sample was available, only a 21 day cure time was evaluated).

B. Limiting Surface Alterations – Enviro Klean® Safety Klean, Sure Klean® 600 Detergent and/or Sure Klean® Vana Trol® were tested at various dilutions to determine if a cleaning program implemented to remove excess mortar and related new construction soiling would otherwise alter the appearance of cleaned surfaces. Surface Alteration was evaluated visually based upon perceived discoloration or erosion/etching of the brick.

Surface Finish Removal 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.

Substrate Deterioration 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.

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

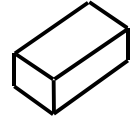
Staining is the visual examination for changes that are the result of a chemical reaction that leaves a staining precipitate.

C. Water Repellent Evaluation - Sure Klean® Weather Seal Siloxane PD, Sure Klean® Weather Seal Siloxane WB Concentrate (1:9) and (1:14), and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control were evaluated on the submitted samples for their ability to provide water repellency.

D. Graffiti Repellency Evaluation – On the submitted clay brick, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control was evaluated for its ability to provide graffiti control. Sure Klean® Fast Acting Stripper and Defacer Eraser® Graffiti Wipe were evaluated for their ability to remove graffiti.



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 4

PRODUCTS EVALUATED FOR CLEANING AND LIMITING SURFACE ALTERATIONS

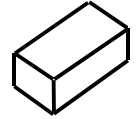
SAMPLE	TREATMENT	DILUTION
"Breckinridge" "Madison" "Ole Virginian" "Providence"	Sure Klean® 600 Detergent	1:6, 1:8
	Enviro Klean® Safety Klean	1:2, 1:3
"Hartford" "Ole Cahaba"	Sure Klean® Vana Trol®	1:6, 1:8
	Enviro Klean® Safety Klean	1:2, 1:3
"Brunswick" "Princeton" "Ole English"	Sure Klean® 600 Detergent	1:6, 1:8
	Enviro Klean® Safety Klean	1:2, 1:3
	Sure Klean® Vana Trol®	1:6, 1:8

WATER REPELLENT PRODUCTS EVALUATED

SAMPLE	TREATMENT	DILUTION
All Submitted Clay Brick	Sure Klean® Weather Seal Siloxane PD	Concentrate
	Sure Klean® Weather Seal Siloxane WB Concentrate	1:9, 1:14
	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Concentrate



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 5

GRAFFITI CONTROL PRODUCTS EVALUATED

SAMPLE	TREATMENT	DILUTION
All Submitted Clay Brick	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Concentrate

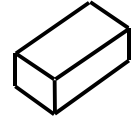
GRAFFITI REMOVAL PRODUCTS EVALUATED

SAMPLE	TREATMENT	DILUTION
All Submitted Clay Brick	Sure Klean® Fast Acting Stripper	Concentrate
	Defacer Eraser® Graffiti Wipe	Concentrate

Dilution ratios refer to mixtures of concentrated product : fresh water.



PALLET TAG PROGRAM LABORATORY REPORT



SECTION A – NEW CONSTRUCTION CLEANING

DESCRIPTION OF PRODUCTS EVALUATED – 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 clay brick.

Type N cementitious mortar was prepared in compliance with the manufacturers instructions, applied to the brick surface and allowed to cure for 7, 14, and 21 days (when not enough sample was available, only a 21 day cure time was evaluated). Mortar removal was accomplished using chemical assistance and a high-pressure water rinse with pressure rinsing equipment. The removal of Type N cementitious masonry mortar was visually evaluated after 7, 14, and 21 days of curing.

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. 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® 600 Detergent – A general purpose, concentrated 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.

Sure Klean® Vana Trol® - 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.

TEST METHOD – New Construction Cleaning

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

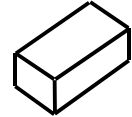
1. Prewet the surface with water.
2. Apply the cleaner.
3. Allow the appropriate dwell time, as specified.

Safety Klean	3-5 minutes
600 Detergent	3-5 minutes
Vana Trol®	3-5 minutes
4. Pressure rinse thoroughly.*

*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 – New Construction Cleaning

% Removal

“Breckinridge”

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	95%	95%	95%
	1:8	95%	95%	95%
Enviro Klean® Safety Klean	1:2	95%	95%	90%
	1:3	95%	95%	90%

“Brunswick”

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	95%	95%	95%
	1:8	95%	95%	95%
Enviro Klean® Safety Klean	1:2	95%	90%	90%
	1:3	95%	90%	90%
Sure Klean® Vana Trol®	1:6	N/A	N/A	100%
	1:8	N/A	N/A	100%

“Hartford”

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	95%
	1:8	100%	100%	95%
Enviro Klean® Safety Klean	1:2	100%	100%	95%
	1:3	100%	100%	90%

“Madison”

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	100%	100%
Enviro Klean® Safety Klean	1:2	100%	95%	95%
	1:3	100%	90%	90%

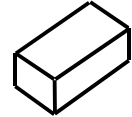
“Ole Cahaba”

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	95%
Enviro Klean® Safety Klean	1:2	95%	95%	95%
	1:3	95%	95%	90%

N/A = not enough sample was submitted for all three mortar cure times.



PALLET TAG PROGRAM LABORATORY REPORT



Test Results – New Construction Cleaning

% Removal

“Ole English”

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	100%	100%
Enviro Klean® Safety Klean	1:2	100%	100%	100%
	1:3	100%	100%	100%
Sure Klean® Vana Trol®	1:6	N/A	N/A	100%
	1:8	N/A	N/A	100%

“Ole Virginian”

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	99%	95%	99%
	1:8	99%	95%	99%
Enviro Klean® Safety Klean	1:2	99%	95%	99%
	1:3	95%	90%	95%

“Princeton”

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	100%	100%
Enviro Klean® Safety Klean	1:2	99%	99%	100%
	1:3	99%	99%	95%
Sure Klean® Vana Trol®	1:6	N/A	N/A	100%
	1:8	N/A	N/A	100%

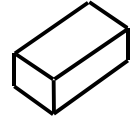
“Providence”

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	100%	95%	95%
	1:8	90%	90%	90%
Enviro Klean® Safety Klean	1:2	95%	95%	95%
	1:3	95%	95%	95%

N/A = not enough sample was submitted for all three mortar cure times.



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 9

PHOTOGRAPHS - Cleaning

“Ole Virginian” Clay Brick; 7 Day Cleaning



Sure Klean® 600
Detergent 1:6

Sure Klean® 600
Detergent 1:8

Enviro Klean®
Safety Klean 1:2

Enviro Klean®
Safety Klean 1:3

“Ole Virginian” Clay Brick; 14 day cleaning



Sure Klean® 600
Detergent 1:6

Sure Klean® 600
Detergent 1:8

Enviro Klean®
Safety Klean 1:2

Enviro Klean®
Safety Klean 1:3

“Ole Virginian” Clay Brick; 21 day cleaning



Sure Klean® 600
Detergent 1:6

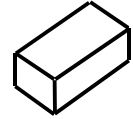
Sure Klean® 600
Detergent 1:8

Enviro Klean®
Safety Klean 1:2

Enviro Klean®
Safety Klean 1:3



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 10

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. These products performed well in removing the mortar soils even after allowing the mortar to remain on the surface of the brick for 21 days under ideal curing conditions.

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, at least 400 psi, to minimize removal of the decorative finish. Excessive pressure, water volume, and surface agitation may combine to damage or remove decorative finishes. To facilitate easier removal of excess mortar and construction dirt while minimizing any potential surface alterations to the decorative finish, clean within 7 days of construction.

RECOMMENDATIONS– New Construction Cleaning

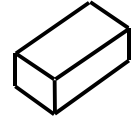
Recommendations for cleaning for each type of clay brick submitted by Henry Brick Company, Inc., Selma, AL are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations.

Brick Type	Recommended Products
“Breckinridge” “Madison” “Ole Virginian” “Providence”	Sure Klean® 600 Detergent (1:8) OR Enviro Klean® Safety Klean (1:3)
“Brunswick”	Sure Klean® Vana Trol® (1:8) (use garden hose strength pressure only)
“Hartford” “Ole Cahaba”	Sure Klean® Vana Trol® (1:8) OR Enviro Klean® Safety Klean (1:3)
“Ole English” “Princeton”	Sure Klean® Vana Trol® (1:8)

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.



PALLET TAG PROGRAM LABORATORY REPORT



SECTION B – LIMITING SURFACE ALTERATIONS

DESCRIPTION OF PRODUCTS EVALUATED – Limiting Surface Alterations

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. 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® 600 Detergent – A general purpose, concentrated 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.

Sure Klean® Vana Trol® - A concentrated acidic cleaner for new masonry surfaces that are subject to vanadium, manganese and other metallic stains. Designed for use on gray, brown, white and most light-colored brick, natural stone and 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.

TEST METHOD – Limiting Surface Alterations:

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

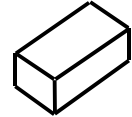
1. Prewet the surface with water.
2. Apply the cleaner.
3. Allow the appropriate dwell time, as specified.

Safety Klean.....	3-5 minutes
600 Detergent	3-5 minutes
Vana Trol®	3-5 minutes
4. Pressure rinse thoroughly.*

* 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 – Limiting Surface Alterations

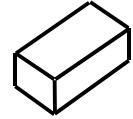
Substrate: Clay brick		Pigment Color: “Breckinridge”			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® 600 Detergent	1:6	1	0	0	0
Sure Klean® 600 Detergent	1:8	1	0	0	0
Enviro Klean® Safety Klean	1:2	1	0	0	0
Enviro Klean® Safety Klean	1:3	1	0	0	0
Substrate: Clay brick		Pigment Color: “Brunswick”			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® 600 Detergent	1:6	2	0	0	0
Sure Klean® 600 Detergent	1:8	2	0	0	0
Enviro Klean® Safety Klean	1:2	1	0	0	0
Enviro Klean® Safety Klean	1:3	1	0	0	0
*Sure Klean® Vana Trol®	1:6	0	0	0	0
*Sure Klean® Vana Trol®	1:8	0	0	0	0
Substrate: Clay brick		Pigment Color: “Hartford”			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Vana Trol®	1:6	0	0	0	0
Sure Klean® Vana Trol®	1:8	0	0	0	0
Enviro Klean® Safety Klean	1:2	0	0	0	0
Enviro Klean® Safety Klean	1:3	0	0	0	0

0 – No change 3 – change – heavy
 1 – change – slight 4 – change - excessive
 2 – change – moderate

***NOTE: Pressure rinsing is not recommended on the “Brunswick” sample. When using garden hose strength pressure, Sure Klean® Vana Trol® did not cause any surface alterations. However, when pressure rinsing was conducted at approximately 1300 psi, much of the sandy finish was removed.**



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 13

TEST RESULTS – Limiting Surface Alterations

Substrate: Clay brick	Pigment Color: "Madison"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean [®] 600 Detergent	1:6	0	0	0	0
Sure Klean [®] 600 Detergent	1:8	0	0	0	0
Enviro Klean [®] Safety Klean	1:2	0	0	0	0
Enviro Klean [®] Safety Klean	1:3	0	0	0	0
Substrate: Clay brick	Pigment Color: "Ole Cahaba"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean [®] Vana Trol [®]	1:6	0	0	0	0
Sure Klean [®] Vana Trol [®]	1:8	0	0	0	0
Enviro Klean [®] Safety Klean	1:2	0	0	0	0
Enviro Klean [®] Safety Klean	1:3	0	0	0	0

0 – No change

1 – change – slight

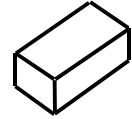
2 – change – moderate

3 – change – heavy

4 – change - excessive



PALLET TAG PROGRAM LABORATORY REPORT



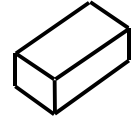
TEST RESULTS – Limiting Surface Alterations

Substrate: Clay brick		Pigment Color: “Ole English”			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® 600 Detergent	1:6	2	0	0	0
Sure Klean® 600 Detergent	1:8	2	0	0	0
Enviro Klean® Safety Klean	1:2	1	0	0	0
Enviro Klean® Safety Klean	1:3	1	0	0	0
Sure Klean® Vana Trol®	1:6	0	0	0	0
Sure Klean® Vana Trol®	1:8	0	0	0	0
Substrate: Clay brick		Pigment Color: “Ole Virginian”			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® 600 Detergent	1:6	1	0	0	0
Sure Klean® 600 Detergent	1:8	1	0	0	0
Enviro Klean® Safety Klean	1:2	1	0	0	0
Enviro Klean® Safety Klean	1:3	1	0	0	0
Substrate: Clay brick		Pigment Color: “Princeton”			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® 600 Detergent	1:6	2	0	0	0
Sure Klean® 600 Detergent	1:8	2	0	0	0
Enviro Klean® Safety Klean	1:2	2	0	0	0
Enviro Klean® Safety Klean	1:3	2	0	0	0
Sure Klean® Vana Trol®	1:6	0	0	0	0
Sure Klean® Vana Trol®	1:8	0	0	0	0
Substrate: Clay brick		Pigment Color: “Providence”			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® 600 Detergent	1:6	0	0	0	0
Sure Klean® 600 Detergent	1:8	0	0	0	0
Enviro Klean® Safety Klean	1:2	0	0	0	0
Enviro Klean® Safety Klean	1:3	0	0	0	0

0 – No change 3 – change – heavy
 1 – change – slight 4 – change - excessive
 2 – change – moderate



PALLET TAG PROGRAM LABORATORY REPORT



CONCLUSIONS – Limiting Surface Alterations

Test results indicate that Sure Klean® Vana Trol did not cause any surface alterations on any of the brick tested. Sure Klean® 600 Detergent and Enviro Klean® Safety Klean removed slight to moderate amounts of surface finish from a few of the brick tested.

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 water pressure, water volume, and surface agitation may combine to damage or remove decorative finishes. To facilitate easier removal of excess mortar and construction dirt while minimizing any potential surface alterations to the decorative finish, clean within 7 days of construction.

RECOMMENDED PRODUCTS AND DILUTIONS – Limiting Surface Alterations

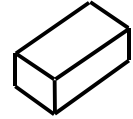
Product recommendations for limiting surface alterations for each type of clay brick submitted by Henry Brick Company, Inc., Selma, AL are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations.

Brick Type	Recommended Products
“Breckinridge” “Madison” “Ole Virginian” “Providence”	Sure Klean® 600 Detergent (1:8) OR Enviro Klean® Safety Klean (1:3)
“Brunswick”	Sure Klean® Vana Trol® (1:8) (use garden hose strength pressure only)
“Hartford” “Ole Cahaba”	Sure Klean® Vana Trol® (1:8) OR Enviro Klean® Safety Klean (1:3)
“Ole English” “Princeton”	Sure Klean® Vana Trol® (1:8)

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.



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 16

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

DESCRIPTIONS OF PRODUCTS EVALUATED - Protective Water Repellents:

Sure Klean® 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.

Sure Klean® Weather Seal Siloxane WB Concentrate – A concentrated water repellent designed for dilution with fresh water at the jobsite. A solvent-free blend of silanes and oligomeric alkoxy siloxanes, it mixes easily with water to produce a penetrating water repellent ideal for application to dense or porous masonry surfaces.

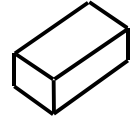
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control – A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, architectural concrete block, pre-cast concrete, wood and porous masonry. Custom Masonry Sealer penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering. Custom Masonry Sealer has excellent UV stability and provides long-lasting protection against water penetration and many types of graffiti. Easy to apply with low-pressure spray, brush or roller.

SAMPLE PREPARATION - Protective Water Repellents:

The submitted brick were cut, dried, and allowed to reabsorb atmospheric humidity for at least 24 hours prior to treatment. The treatment method adhered to the 2004 PROSOCO, Inc. Product Guide. All treatments were allowed to cure for at least 3 days prior to testing.



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 17

TEST METHODS - Protective Water Repellents:

Water Absorption Tube Test: 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:

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 ml of water or more, then:

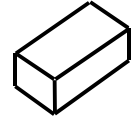
A rating of **AA** *Above Average* water repellent performance would require loss of no more than 5 ml X 20% = 1 ml.

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

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



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 18

TEST RESULTS: Protective Water Repellents

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

AA = Above Average

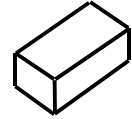
A = Average

BA = Below Average

“Breckinridge”	Results in mL loss	Ranking
Untreated Control	4.5	--
Weather Seal Siloxane PD	0.7	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>
“Brunswick”	Results in mL loss	Ranking
Untreated Control	0.2	--
Weather Seal Siloxane PD	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>
“Hartford”	Results in mL loss	Ranking
Untreated Control	1.0	--
Weather Seal Siloxane PD	0.4	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>
“Madison”	Results in mL loss	Ranking
Untreated Control	1.2	--
Weather Seal Siloxane PD	0.4	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>
“Ole Cahaba”	Results in mL loss	Ranking
Untreated Control	1.6	--
Weather Seal Siloxane PD	0.2	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 19

TEST RESULTS: Protective Water Repellents

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

AA = Above Average

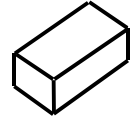
A = Average

BA = Below Average

"Ole English"	Results in mL loss	Ranking
Untreated Control	0.2	--
Weather Seal Siloxane PD	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>
"Ole Virginian"	Results in mL loss	Ranking
Untreated Control	1.2	--
Weather Seal Siloxane PD	0.2	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>
"Princeton"	Results in mL loss	Ranking
Untreated Control	1.6	--
Weather Seal Siloxane PD	0.4	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>
"Providence"	Results in mL loss	Ranking
Untreated Control	0.7	--
Weather Seal Siloxane PD	0.1	<u>AA</u>
Weather Seal Siloxane WB (1:9)	0.0	<u>AA</u>
Weather Seal Siloxane WB (1:14)	0.0	<u>AA</u>
Blok-Guard & Graffiti Control	0.0	<u>AA</u>



PALLET TAG PROGRAM LABORATORY REPORT

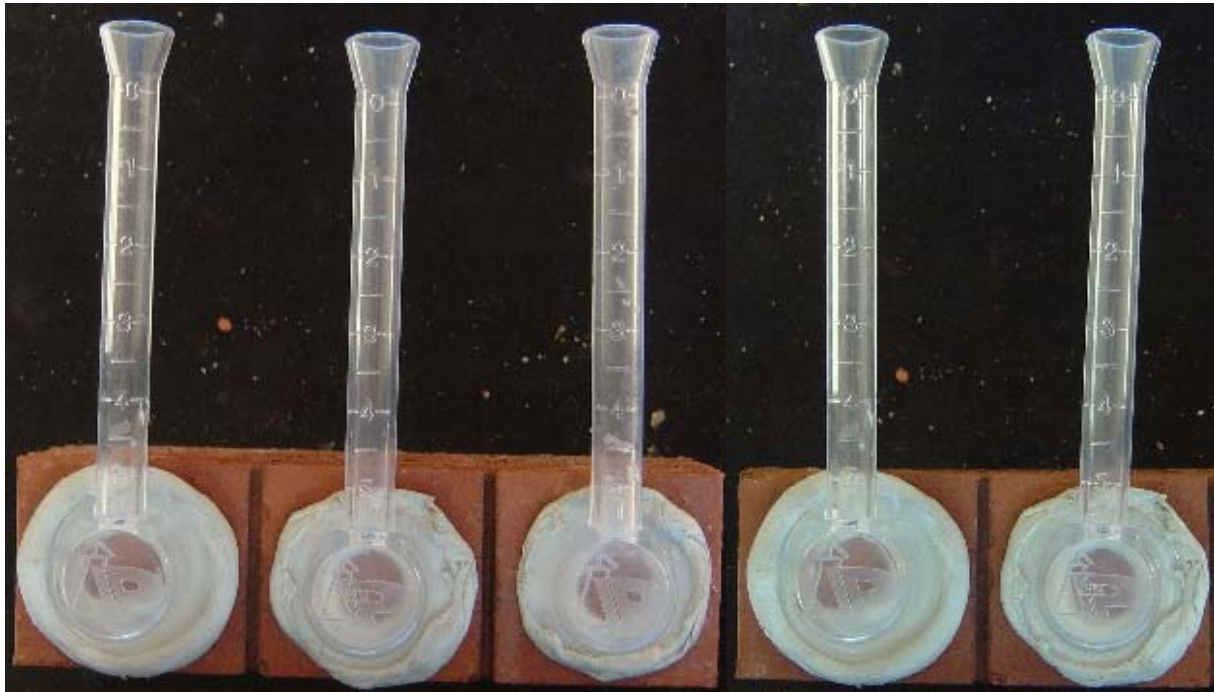


PROSOCO, Inc.

Page 20

PHOTOGRAPH – Water Repellents

“Breckenridge” Clay Brick; RILEM Testing



**Sure Klean®
Weather Seal
Siloxane PD**

**Sure Klean®
Weather Seal
Blok-Guard® &
Graffiti Control**

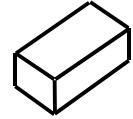
**Untreated
Control**

**Sure Klean®
Weather Seal
Siloxane WB
1:9**

**Sure Klean®
Weather Seal
Siloxane WB
1:14**



PALLET TAG PROGRAM LABORATORY REPORT



CONCLUSIONS – Protective Water Repellents:

Test results indicate that all of the water repellents tested exhibited above average water repellency on all submitted clay brick. In addition, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control enhanced the appearance of the clay brick.

RECOMMENDATIONS – Protective Water Repellents:

Recommendations for water repellent treatments for each type of clay brick submitted by Henry Brick Company, Inc., Selma, AL, 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.

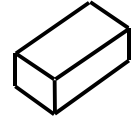
Brick Type	Water Repellent
All Submitted Clay Brick	Sure Klean® Weather Seal Siloxane WB Concentrate (1:9) OR (1:14) OR Sure Klean® Weather Seal Siloxane PD OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control

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.



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 22

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® & Graffiti Control – A clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry material. Sure Klean® Weather Seal Blok-Guard® & 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.

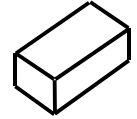
Sure Klean® Fast Acting Stripper – A thixotropic stripping compound formulated specifically for removal of high strength paints and coatings such as epoxies, polyurethanes, and floor enamels. Additionally, Fast Acting Stripper dissolves most spray paints, marking pens, lacquers and other graffiti.

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.

Application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control:

Sections of the samples were treated with one coat of Sure Klean® Weather Seal Blok-Guard® & 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. 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

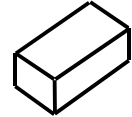
Chemical cleaners were evaluated using the following procedure:

1. Apply the product to a dry surface, soiled with graffiti.
2. Allow appropriate dwell time:
 - Fast Acting Stripper 20 minutes
 - Graffiti Wipe 5 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



PROSOCO, Inc.

Page 24

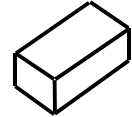
TEST RESULTS – Graffiti Control

%Removal

“Breckinridge” Clay Brick					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	100%	95%	100%	96%
Graffiti Wipe	90%	100%	95%	100%	96%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	95%	100%	100%	100%	99%
“Brunswick” Clay Brick					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	100%	95%	100%	96%
Graffiti Wipe	90%	100%	95%	100%	96%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	95%	100%	100%	100%	99%
“Hartford” Clay Brick					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	95%	90%	90%	91%
Graffiti Wipe	90%	80%	80%	90%	85%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	95%	100%	100%	100%	99%
“Madison” Clay Brick					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	95%	90%	90%	89%
Graffiti Wipe	80%	80%	80%	90%	83%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	95%	100%	95%	95%
Graffiti Wipe	90%	95%	95%	100%	95%



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 25

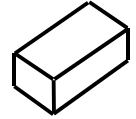
TEST RESULTS – Graffiti Control

%Removal

“Ole Cahaba” Clay Brick					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	100%	20%	70%	68%
Graffiti Wipe	85%	90%	70%	40%	71%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	95%	100%	98%
Graffiti Wipe	95%	100%	100%	100%	99%
“Ole English” Clay Brick					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	95%	90%	90%	91%
Graffiti Wipe	90%	95%	90%	85%	90%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	95%	95%	100%	95%
Graffiti Wipe	90%	95%	100%	100%	96%
“Ole Virginian” Clay Brick					
Untreated 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%
Blok-Guard® & 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%
“Princeton” Clay Brick					
Untreated 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%
Blok-Guard® & 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%



PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 26

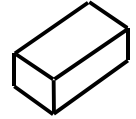
TEST RESULTS – Graffiti Control

%Removal

“Providence” Clay Brick					
Untreated 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%
Blok-Guard® & 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%



PALLET TAG PROGRAM LABORATORY REPORT

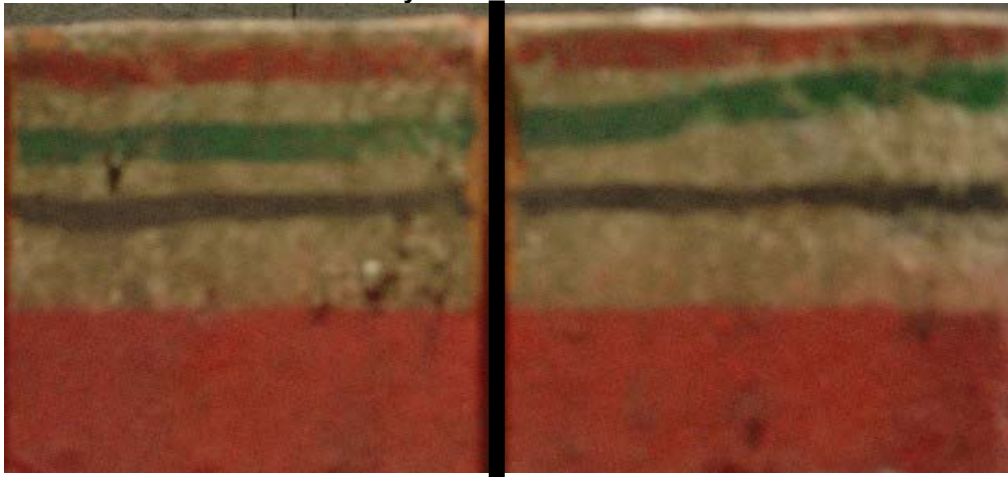


PROSOCO, Inc.

Page 27

PHOTOGRAPHS – Graffiti Control

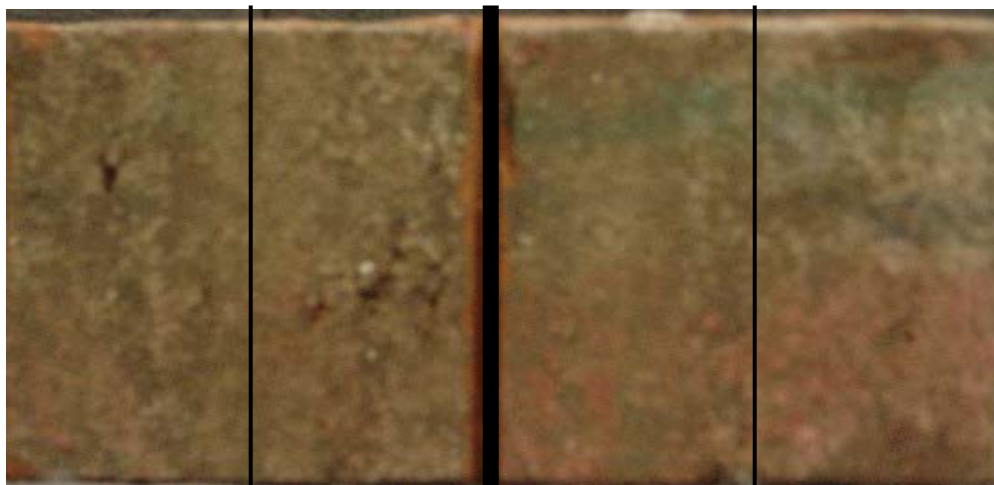
“Hartford” Clay Brick Before Graffiti Removal



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

Untreated Control

“Hartford” Clay Brick After Graffiti Removal



Sure Klean®
Fast Acting
Stripper

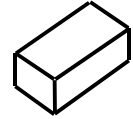
Defacer
Eraser®
Graffiti Wipe

Sure Klean®
Fast Acting
Stripper

Defacer
Eraser®
Graffiti Wipe



PALLET TAG PROGRAM LABORATORY REPORT



CONCLUSIONS – Graffiti Control

Based upon laboratory evaluations, graffiti removal was improved when the submitted samples were treated with Sure Klean® Weather Seal Blok-Guard® & Graffiti Control prior to graffiti application. In addition, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control enhanced the appearance of the clay brick. Also, caution should be taken when cleaning the “Ole English” clay brick as excessive water pressure, water volume, and surface agitation combined to remove approximately 20% of the decorative finish on both the Blok-Guard® & Graffiti Control and untreated areas.

RECOMMENDATIONS – GRAFFITI CONTROL

Recommendations for graffiti control treatment for each type of clay brick submitted by Henry Brick Company, Inc., Selma, AL, 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.

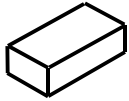
Brick Type	Graffiti Repellent	Graffiti Removers
All Submitted Clay Brick	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Sure Klean® Fast Acting Stripper OR Defacer Eraser® Graffiti Wipe

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.

To facilitate easier removal of graffiti staining, while minimizing any potential surface alterations to the decorative finish, use less surface agitation and lower water pressure.

Christopher A. Moore
Project Testing Laboratory Technician
CAM



Laboratory Report

Pallet Tag Program Evaluation

**Henry Brick Company, Inc.
Selma, AL**

Project No. 0502-13 PTP

Prepared For:

**Henry Brick Company, Inc.
3409 Water Ave.
Selma, AL 36702**

Prepared By:



***PROSOCO, Inc.
May 2005***