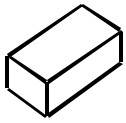
PALLET TAG PROGRAM
LABORATORY REPORT



PROSOCO, Inc.

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Technical Services TECH Note RILEM Test Method No. II.4

Product Data literature for all products evaluated

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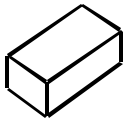
LABORATORY REPORT



PROSOCO, Inc.

FOR: Butch Reed
cc: James Holt
Paul Tessier
Steve Dean

SUBJECT: Columbus Brick Co.
Columbus, MS

DATE: July 17, 2003

PROJECT: 0305-17 PTP

SAMPLES SUBMITTED: (21) types of clay bricks

Sample	Color/Coating	Size
(6) “Red Burlington”	Red-tan/ ”Light sand - Slurry”	7 ¾” x 3 ½” x 2 ¼”
(6) “Camellia”	Light Red/ ”Light sand - Slurry”	
(6)”Callaway”	Light Red/ “Light sand - Slurry”	
(6) “Canterbury”	Pink-gray/ ”Light sand - Slurry”	
(6) “F/R Bark”	Red textured/“Bark”	
(6) “F/R Sand”	Red-tan/“Sand”	
(6) “Jefferson Manor”	White/ ”Light sand-Slurry”, “Kaolin coating”	
(6) “Market St.”	Pink-white/ ”Light sand-Slurry”, “Kaolin coating”	
(6) “Old Colony”	Red-tan/ ”Light sand - Slurry”	
(6) “Old Waverly”	White/ ”Light sand-Slurry”, “Kaolin coating”	
(6) “Red Bark”	Red textured/”Bark”	
(6) “Red Sand”	Red/“Sand”	
(6) “Red Scratch”	Red textured/“Scratch”	
(6) “Red Smooth”	Red/“Smooth”	
(6) “Riverview”	White-gray/ ”Light sand-Slurry”, “Kaolin coating”	
(6) “Savannah Gray”	Dark-brown/”Light sand - Slurry”	
(6) “Saxton”	Red/”Light sand - Slurry”	
(6) “St. Louis”	Black-tan-white Specks/“Smooth - Slurry”	
(6) “Used”	Tan-black/“Light Sand”	
(6) “Wakefield”	Red-black/”Light sand - Slurry”	
(6) “Yorktown”	Red/”Light sand-Slurry”	

Submitted by: Butch Reed

PURPOSE OF TESTING:

Twenty-one different types of clay bricks 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 repellent treatments and graffiti control products suitable for clay brick masonry will also be evaluated.

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

To simulate new construction soiling, all bricks 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 Ash Grove® Type N cementitious mortar. The wet mortar-filled cylinder was allowed to remain in contact with the brick for 10 minutes before removal.

Soiled bricks 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 Ash Grove® Type N mortar after 7, 14, and 21 days of curing.

B. Limiting Surface Alterations – Sure Klean® Vana Trol® and/or Sure Klean® 600 Detergent 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 masonry unit.

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 Blok-Guard® & Graffiti Control, and Sure Klean® Weather Seal Siloxane WB Concentrate were evaluated on the submitted samples for their ability to provide water repellency.

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

PRODUCTS EVALUATED FOR CLEANING AND LIMITING SURFACE ALTERATIONS

SAMPLE	TREATMENT	DILUTION
"Red Burlington", "Callaway", "F/R Bark", "F/R Sand", "Old Colony", and "Saxton"	Sure Klean® Vana Trol®	1:6, 1:8
	Sure Klean® 600 Detergent	1:6, 1:8
"Camellia", "Canterbury", "Jefferson Manor", "Market St.", "Old Waverly", "Riverview", Savannah Gray", "St. Louis", "Used", "Wakefield", and "Yorktown"	Sure Klean® Vana Trol®	1:6, 1:8
"Red Bark", "Red Sand", "Red Scratch", and "Red Smooth"	Sure Klean® 600 Detergent	1:6, 1:8

WATER REPELLENT PRODUCTS EVALUATED

SAMPLE	TREATMENT	DILUTION
All submitted clay bricks	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

GRAFFITI CONTROL PRODUCTS EVALUATED

SAMPLE	TREATMENT
All submitted clay bricks	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control

GRAFFITI REMOVAL PRODUCTS EVALUATED

SAMPLE	TREATMENT
All submitted clay bricks	Defacer Eraser® Graffiti Release
	Defacer Eraser® Graffiti Wipe
	Sure Klean® Fast Acting Stripper

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

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 Ash Grove® Type N mortar from the submitted fired clay bricks.

Ash Grove® 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. Mortar removal was accomplished using chemical assistance and a high-pressure water rinse with pressure rinsing equipment. The removal of Ash Grove® Type N cementitious masonry cement mortar was visually evaluated after 7, 14 and 21 days of curing.

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.

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. Liquid concentrate for dilution with 4-12 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.
   - Vana Trol® ..... 3-5 minutes
   - 600 Detergent..... 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.

Test Results – New Construction Cleaning

% Removal

"Red Burlington"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	95%	100%
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	95%	100%

"Camellia"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	95%	100%	100%

"Callaway"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Canterbury"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%

"F/R Bark"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	95%	100%
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	95%	100%

Test Results – New Construction Cleaning (continued)

% Removal

"F/R Sand"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Jefferson Manor"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Market St."

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Old Colony"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	90%	100%
Sure Klean® 600 Detergent	1:6	100%	95%	100%
	1:8	95%	95%	95%

"Old Waverly"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Red Bark"

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	100%	95%	95%
	1:8	95%	95%	95%

Test Results – New Construction Cleaning (continued)

% Removal

"Red Sand"

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	95%	100%

"Red Scratch"

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	97%	97%	97%
	1:8	95%	95%	95%

"Red Smooth"

Product	Dilution	7 day	14 day	21 day
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Riverview"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	90%	100%

"Savannah Gray"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	95%	95%	95%

"Saxton"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%
Sure Klean® 600 Detergent	1:6	100%	100%	100%
	1:8	100%	100%	100%

Test Results – New Construction Cleaning (continued)

% Removal

"St. Louis"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Used"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	100%	100%	100%

"Wakefield"

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

"Yorktown"

Product	Dilution	7 day	14 day	21 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
	1:8	95%	100%	100%

CONCLUSIONS – New Construction Cleaning

Based on the test results, Sure Klean® Vana Trol and/or Sure Klean® 600 Detergent in most dilutions tested performed extremely well in removing excess mortar smears on the submitted clay bricks. Both 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 and water volume 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 Columbus Brick Company, Columbus, MS are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations.

Brick Type	New Construction Cleaning (Type N, 21 Days)
"Camellia" "Old Colony" "Riverview" "Savannah Gray" "Wakefield"	Sure Klean® Vana Trol® 1:6
"Canterbury" "Jefferson Manor" "Market Street "Old Waverly" "St. Louis" "Used" "Yorktown"	Sure Klean® Vana Trol® 1:8
"Red Burlington" "Callaway" "F/R Bark" F/R Sand "Saxton"	Sure Klean® Vana Trol® 1:8 OR Sure Klean® 600 Detergent 1:8
"Red Bark" "Red Scratch"	Sure Klean® 600 Detergent 1:6
"Red Sand" "Red Smooth"	Sure Klean® 600 Detergent 1:8

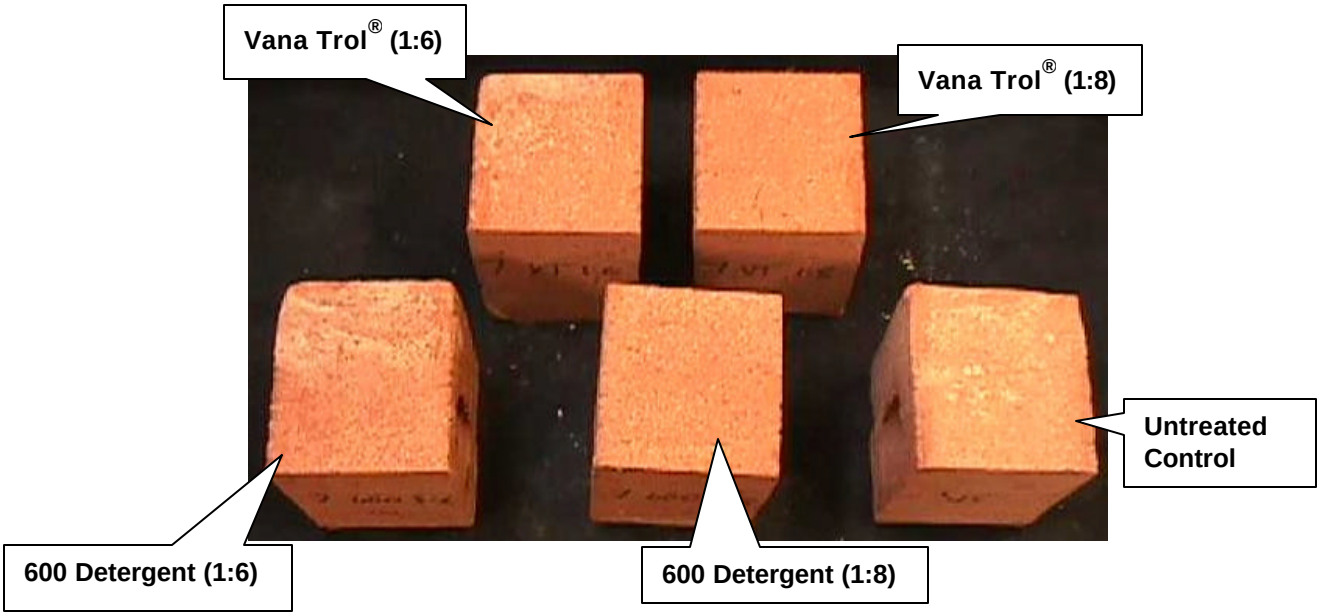
Excessive pressure and water volume may combine to damage or remove decorative finishes. To facilitate easier removal of excess mortar and construction dirt while minimizing any potential surface alterations to the decorative finish, clean within 7 days of construction. Rinsing with high-pressure spray (400-800 psi) is recommended.

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.

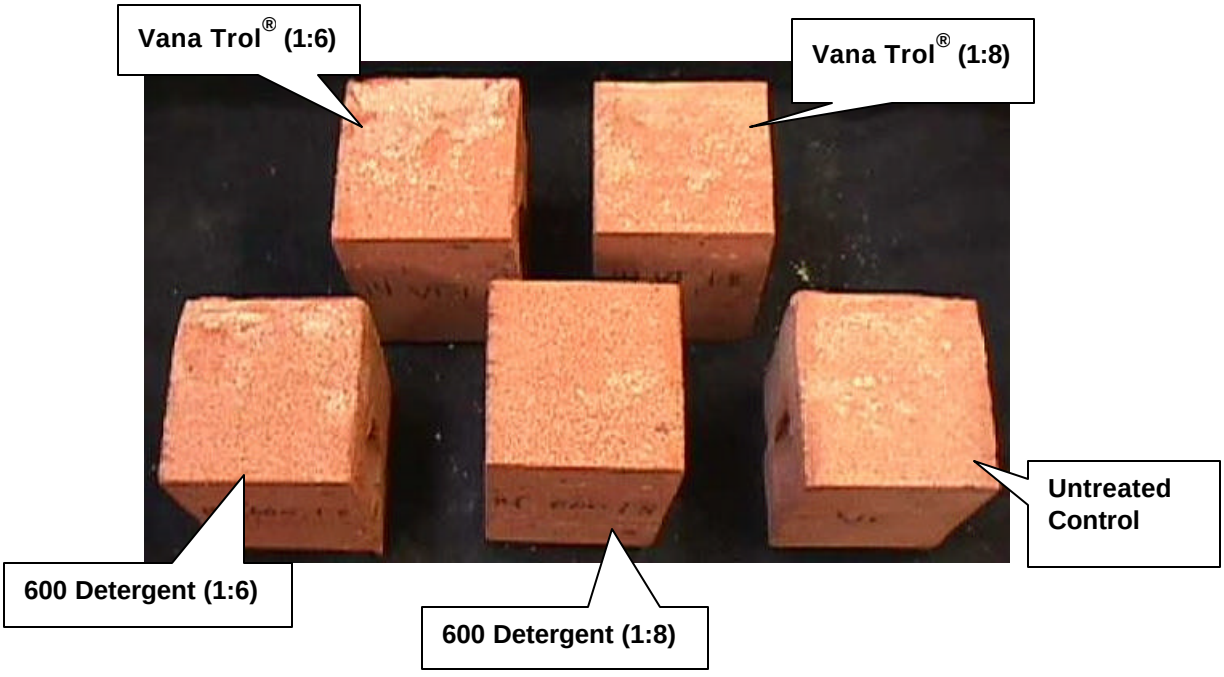
See product literature for additional application and product information.

PHOTOGRAPHS - Cleaning

"Callaway" after 7 day cleaning

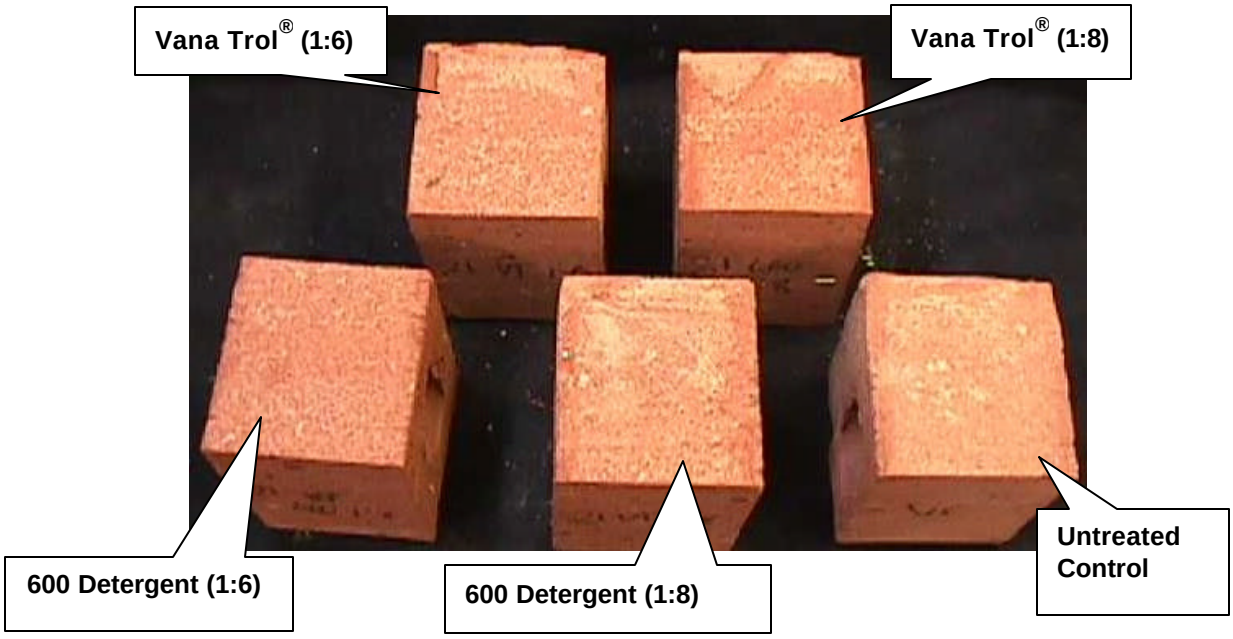


"Callaway" after 14 day cleaning



PHOTOGRAPHS – Cleaning (cont.)

"Callaway" after 21 day cleaning



SECTION B – LIMITING SURFACE ALTERATIONS

DESCRIPTION OF PRODUCTS EVALUATED – Limiting Surface Alterations

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.

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. Liquid concentrate for dilution with 4-12 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.
   - Vana Trol® ..... 3-5 minutes
   - 600 Detergent ..... 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.

TEST RESULTS – Limiting Surface Alterations

Substrate: Clay brick	**Pigment Color:** "Red Burlington"				
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
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0
Substrate: Clay brick	**Pigment Color:** "Camellia"				
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
Substrate: Clay brick	**Pigment Color:** "Callaway"				
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
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0
Substrate: Clay brick	**Pigment Color:** "Canterbury"				
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
Substrate: Clay brick	**Pigment Color:** "F/R Bark"				
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
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0

Scale used for reporting results of both categories

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

TEST RESULTS – Limiting Surface Alterations (continued)

Substrate: Clay brick	**Pigment Color:** "F/R Sand"				
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
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0
Substrate: Clay brick	**Pigment Color:** "Jefferson Manor"				
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
Substrate: Clay brick	**Pigment Color:** "Market St."				
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
Substrate: Clay brick	**Pigment Color:** "Old Colony"				
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
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0
Substrate: Clay brick	**Pigment Color:** "Old Waverly"				
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
Substrate: Clay brick	**Pigment Color:** "Red Bark"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0

Scale used for reporting results of both categories

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

TEST RESULTS – Limiting Surface Alterations (continued)

Substrate: Clay brick	**Pigment Color:** "Red Sand"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0
Substrate: Clay brick	**Pigment Color:** "Red Scratch"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0
Substrate: Clay brick	**Pigment Color:** "Red Smooth"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0
Substrate: Clay brick	**Pigment Color:** "Riverview"				
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
Substrate: Clay brick	**Pigment Color:** "Savannah Gray"				
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
Substrate: Clay brick	**Pigment Color:** "Saxton"				
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
600 Detergent	1:6	0	0	0	0
600 Detergent	1:8	0	0	0	0

Scale used for reporting results of both categories

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

TEST RESULTS – Limiting Surface Alterations (continued)

Substrate: Clay brick	**Pigment Color:** "St. Louis"				
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
Substrate: Clay brick	**Pigment Color:** "Used"				
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
Substrate: Clay brick	**Pigment Color:** "Wakefield"				
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
Substrate: Clay brick	**Pigment Color:** "Yorktown"				
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

Scale used for reporting results of both categories

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

CONCLUSIONS – Limiting Surface Alterations

Test results indicate that none of the products tested caused any surface alterations on any of the submitted clay bricks. 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, such as garden hose strength, 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 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 Columbus Brick Company, Columbus, MS are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations.

Brick Type	New Construction Cleaning (Type N, 21 Days)
"Camellia" "Old Colony" "Riverview" "Savannah Gray" "Wakefield"	Sure Klean® Vana Trol® 1:6
"Canterbury" "Jefferson Manor" "Market Street "Old Waverly" "St. Louis" "Used" "Yorktown"	Sure Klean® Vana Trol® 1:8
"Red Burlington" "Callaway" "F/R Bark" F/R Sand "Saxton"	Sure Klean® Vana Trol® 1:8 OR Sure Klean® 600 Detergent 1:8
"Red Bark" "Red Scratch"	Sure Klean® 600 Detergent 1:6
"Red Sand" "Red Smooth"	Sure Klean® 600 Detergent 1:8

Excessive pressure and water volume 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. Rinsing with high-pressure spray (400-800 psi) is recommended.

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.

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 alkoxysiloxanes, 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, precast concrete, wood and porous masonry. Block-Guard® & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering.

SAMPLE PREPARATION - Protective Water Repellents:

The submitted brick were cut, oven dried and allowed to reabsorb atmospheric humidity for 24 hours prior to treatment. The treatment method consisted of a wet-on-wet brush application as instructed in the 2003 PROSOCO, Inc. Product Guide. All treatments were allowed to cure for at least 14 days prior to testing.

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 also 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+

NOTE: Due to the textured surface of the "Red Scratch" and "Red Bark" brick, the Capillary Uptake method for evaluating water absorption was performed:

Water Absorption Test – Capillary Uptake

Water absorption is determined by comparing the dry weight of the sample with its weight after capillary uptake through the weathered surface at 1-minute, 16-minute, 36-minute, and 64-minute intervals.

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

AA = Above Average **A = Average** **BA = Below Average**

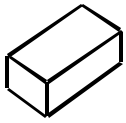
"Red Burlington"	Results in mL loss	Ranking
Untreated Control	0.7	--
Weather Seal Siloxane PD	0.1	**AA**
Weather Seal Siloxane WB (1:9)	0.1	**AA**
Weather Seal Siloxane WB (1:14)	0.2	**A**
Blok-Guard® & Graffiti Control	0.1	**AA**
"Camellia"	**Results in mL loss**	**Ranking**
Untreated Control	1.3	--
Weather Seal Siloxane PD	0.3	**A**
Weather Seal Siloxane WB (1:9)	0.1	**AA**
Weather Seal Siloxane WB (1:14)	0.3	**A**
Blok-Guard® & Graffiti Control	0.1	**AA**

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

AA = Above Average **A = Average** **BA = Below Average**

"Callaway"	Results in mL loss	Ranking
Untreated Control	1.3	--
Weather Seal Siloxane PD	0.1	AA
Weather Seal Siloxane WB (1:9)	0.0	AA
Weather Seal Siloxane WB (1:14)	0.1	AA
Blok-Guard® & Graffiti Control	0.3	A
"Canterbury"	**Results in mL loss**	**Ranking**
Untreated Control	0.6	--
Weather Seal Siloxane PD	0.4	BA
Weather Seal Siloxane WB (1:9)	0.1	AA
Weather Seal Siloxane WB (1:14)	0.3	A
Blok-Guard® & Graffiti Control	0.2	A
"F/R Bark"	**Results in mL loss**	**Ranking**
Untreated Control	4.0	--
Weather Seal Siloxane PD	0.7	AA
Weather Seal Siloxane WB (1:9)	0.2	AA
Weather Seal Siloxane WB (1:14)	0.2	AA
Blok-Guard® & Graffiti Control	0.4	AA
"F/R Sand"	**Results in mL loss**	**Ranking**
Untreated Control	0.4	--
Weather Seal Siloxane PD	0.3	BA
Weather Seal Siloxane WB (1:9)	0.0	AA
Weather Seal Siloxane WB (1:14)	0.2	A
Blok-Guard® & Graffiti Control	0.3	BA
"Jefferson Manor"	**Results in mL loss**	**Ranking**
Untreated Control	0.6	--
Weather Seal Siloxane PD	0.3	A
Weather Seal Siloxane WB (1:9)	0.1	AA
Weather Seal Siloxane WB (1:14)	0.6	BA
Blok-Guard® & Graffiti Control	0.1	AA
"Market St."	**Results in mL loss**	**Ranking**
Untreated Control	1.7	--
Weather Seal Siloxane PD	0.3	AA
Weather Seal Siloxane WB (1:9)	0.0	AA
Weather Seal Siloxane WB (1:14)	0.1	AA
Blok-Guard® & Graffiti Control	0.2	AA

PALLET TAG PROGRAM
LABORATORY REPORT



PROSOCO, Inc.

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

AA = Above Average **A = Average** **BA = Below Average**

"Old Colony"	Results in mL loss	Ranking
Untreated Control	0.4	--
Weather Seal Siloxane PD	0.2	A
Weather Seal Siloxane WB (1:9)	0.0	AA
Weather Seal Siloxane WB (1:14)	0.1	A
Blok-Guard® & Graffiti Control	0.2	A
"Old Waverly"	**Results in mL loss**	**Ranking**
Untreated Control	0.6	--
Weather Seal Siloxane PD	0.0	AA
Weather Seal Siloxane WB (1:9)	0.1	AA
Weather Seal Siloxane WB (1:14)	0.2	A
Blok-Guard® & Graffiti Control	0.1	AA
"Red Sand"	**Results in mL loss**	**Ranking**
Untreated Control	1.7	--
Weather Seal Siloxane PD	0.5	A
Weather Seal Siloxane WB (1:9)	0.2	AA
Weather Seal Siloxane WB (1:14)	0.1	AA
Blok-Guard® & Graffiti Control	0.1	AA
"Red Smooth"	**Results in mL loss**	**Ranking**
Untreated Control	0.6	--
Weather Seal Siloxane PD	0.2	A
Weather Seal Siloxane WB (1:9)	0.2	A
Weather Seal Siloxane WB (1:14)	0.2	A
Blok-Guard® & Graffiti Control	0.1	AA
"Riverview"	**Results in mL loss**	**Ranking**
Untreated Control	1.1	--
Weather Seal Siloxane PD	0.2	AA
Weather Seal Siloxane WB (1:9)	0.1	AA
Weather Seal Siloxane WB (1:14)	0.1	AA
Blok-Guard® & Graffiti Control	0.1	AA
"Savannah Gray"	**Results in mL loss**	**Ranking**
Untreated Control	0.5	--
Weather Seal Siloxane PD	0.3	BA
Weather Seal Siloxane WB (1:9)	0.0	AA
Weather Seal Siloxane WB (1:14)	0.1	AA
Blok-Guard® & Graffiti Control	0.1	AA

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

AA = Above Average **A = Average** **BA = Below Average**

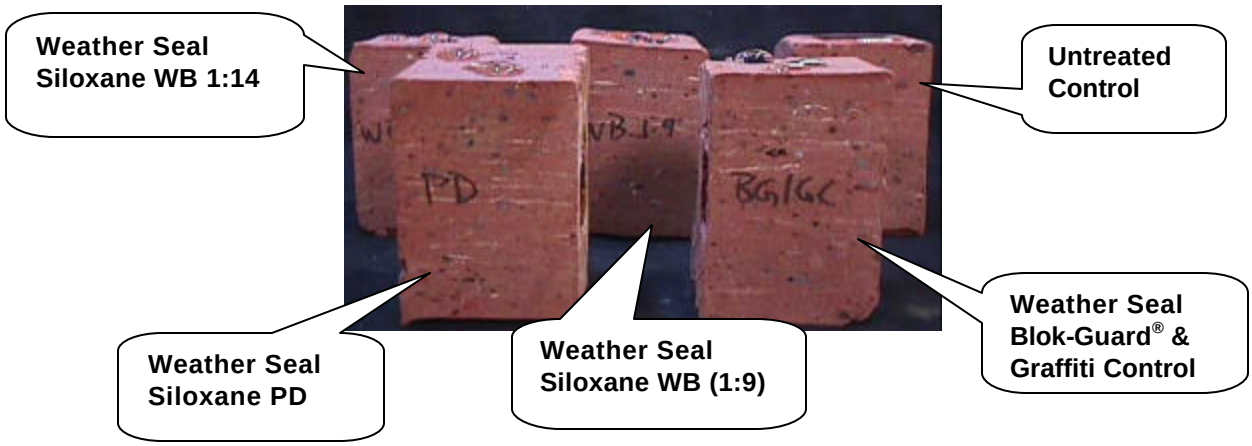
"Saxton"	Results in mL loss	Ranking
Untreated Control	4.2	--
Weather Seal Siloxane PD	0.7	AA
Weather Seal Siloxane WB (1:9)	0.0	AA
Weather Seal Siloxane WB (1:14)	0.0	AA
Blok-Guard® & Graffiti Control	0.1	AA
"St. Louis"	**Results in mL loss**	**Ranking**
Untreated Control	0.3	--
Weather Seal Siloxane PD	0.2	BA
Weather Seal Siloxane WB (1:9)	0.2	BA
Weather Seal Siloxane WB (1:14)	0.3	BA
Blok-Guard® & Graffiti Control	0.1	A
"Used"	**Results in mL loss**	**Ranking**
Untreated Control	1.7	--
Weather Seal Siloxane PD	0.6	A
Weather Seal Siloxane WB (1:9)	0.2	AA
Weather Seal Siloxane WB (1:14)	0.3	AA
Blok-Guard® & Graffiti Control	0.1	AA
"Wakefield"	**Results in mL loss**	**Ranking**
Untreated Control	0.5	--
Weather Seal Siloxane PD	0.2	A
Weather Seal Siloxane WB (1:9)	0.0	AA
Weather Seal Siloxane WB (1:14)	0.2	A
Blok-Guard® & Graffiti Control	0.1	AA
"Yorktown"	**Results in mL loss**	**Ranking**
Untreated Control	0.7	--
Weather Seal Siloxane PD	0.3	A
Weather Seal Siloxane WB (1:9)	0.1	AA
Weather Seal Siloxane WB (1:14)	0.1	AA
Blok-Guard® & Graffiti Control	0.2	A

Water Absorption - Capillary Uptake ("Red Scratch" and "Red Bark" only)

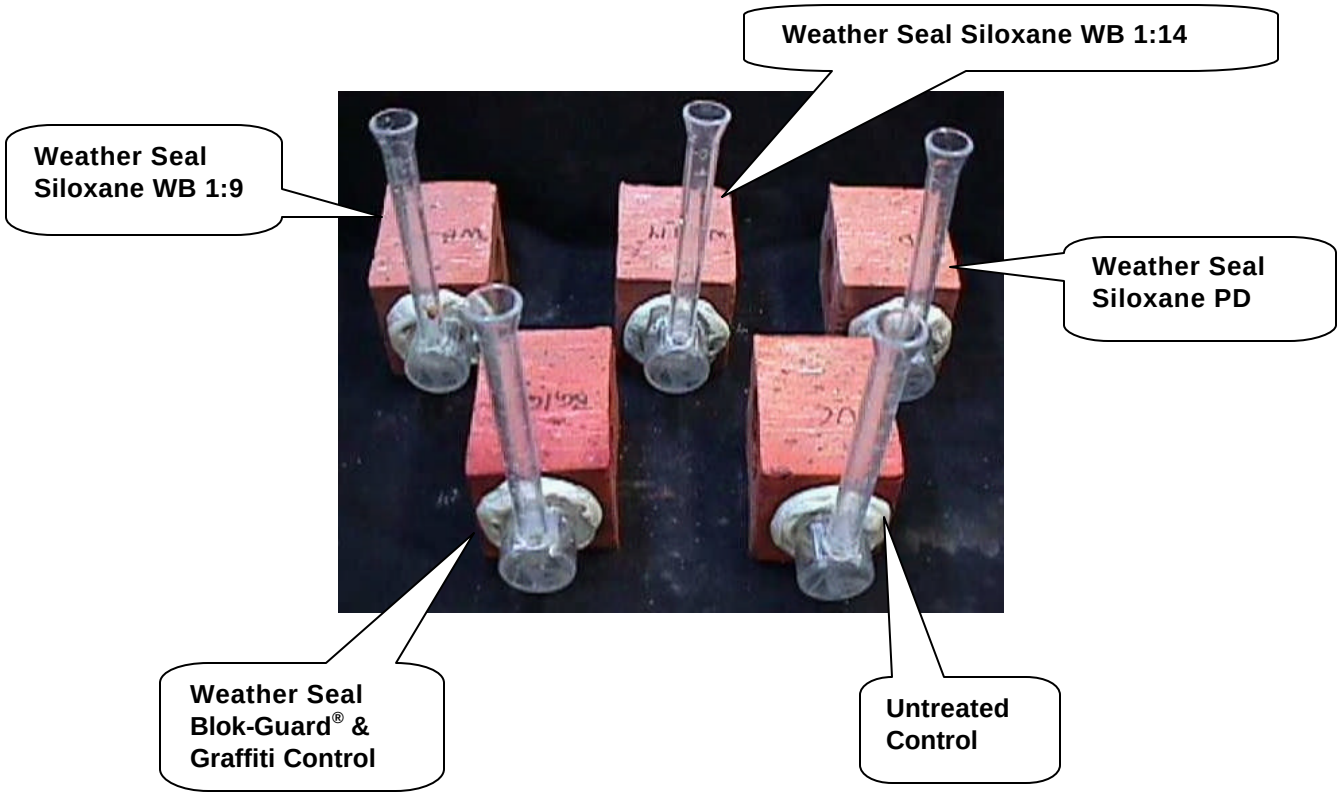
Treatment	1 Min. % Absorbed	16 Min. % Absorbed	36 Min. % Absorbed	64 Min. % Absorbed	% Reduced Water Absorption
"Red Scratch"					
Untreated Control	0.38%	0.82%	1.05%	1.42%	---
Weather Seal Siloxane PD	0.07%	0.13%	0.15%	0.19%	87%
Weather Seal Siloxane WB (1:9)	0.04%	0.14%	0.14%	0.27%	81%
Weather Seal Siloxane WB (1:14)	0.08%	0.15%	0.16%	0.20%	86%
Blok-Guard® & Graffiti Control	0.02%	0.04%	0.07%	0.04%	97%
"Red Bark"					
Untreated Control	0.51%	0.66%	0.76%	0.80%	---
Weather Seal Siloxane PD	0.10%	0.13%	0.12%	0.06%	92%
Weather Seal Siloxane WB (1:9)	0.00%	0.07%	0.13%	0.00%	100%
Weather Seal Siloxane WB (1:14)	0.12%	0.19%	0.29%	0.15%	82%
Blok-Guard® & Graffiti Control	0.00%	0.05%	0.06%	0.00%	100%

PHOTOGRAPH – Surface Beading

"Saxton" Surface Beading Characteristics



"Saxton" RILEM Testing



CONCLUSIONS - Protective Water Repellents:

RILEM test results indicate that Sure Klean® Weather Seal Siloxane PD, Sure Klean® Weather Seal Siloxane WB Concentrate, or Sure Klean® Weather Seal Blok-Guard® & Graffiti Control exhibited above average water repellency on all submitted clay bricks except "Red Bark" and "Red Scratch."

Capillary Uptake test results indicate that Sure Klean® Weather Seal Siloxane PD, Sure Klean® Weather Seal Siloxane WB Concentrate, or Sure Klean® Weather Seal Blok-Guard® & Graffiti Control exhibited above average water repellency on the "Red Scratch" and "Red Bark" clay bricks. For future projects, PROSOCO, Inc. would only be able to offer a 5 Year Material Only Warranty on "Red Scratch" and "Red Bark" brick.

RECOMMENDATIONS - Protective Water Repellents:

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

Brick Type	Water Repellent
"Red Burlington" "Old Waverly"	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control OR Sure Klean® Weather Seal Siloxane PD OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)
"Camellia" "F/R Sand" "Jefferson Manor" "Wakefield"	Sure Klean® Weather Seal Blok-Guard & Graffiti Control OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)
"Callaway"	Sure Klean® Weather Seal Siloxane PD OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Canterbury" "Old Colony"	Sure Klean® Weather Seal Siloxane WB (1:9)
"F/R Bark" "Market St." "Riverview" "Saxton" "Red Scratch" "Red Bark"	Sure Klean® Weather Seal Blok-Guard & Graffiti Control OR Sure Klean® Weather Seal Siloxane PD OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Red Sand" "Savannah Gray" "Used"	Sure Klean® Weather Seal Blok-Guard & Graffiti Control OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Red Smooth" "St. Louis"	Sure Klean® Weather Seal Blok-Guard & Graffiti Control
"Yorktown"	Sure Klean® Weather Seal Siloxane WB Concentrate (1:9), (1:14)

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.

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 custom masonry units, cast stone, and concrete block without altering the natural appearance. Blok-Guard® & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering as well as long-lasting protection against many types of graffiti.

Products Evaluated for Graffiti Removal

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

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 removed a variety of graffiti stains from most smooth masonry, wood and metal surfaces.

Sure Klean® Fast Acting Stripper – A thixotropic stripping compound designed for removing coatings and epoxies from masonry, wood and metal surfaces. Also removes oil, grease, and waxes from concrete decks, tile and terrazzo floors.

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 brick samples were treated with Sure Klean® Weather Seal Blok-Guard® & Graffiti Control in accordance with PROSOCO, Inc.'s Product Guide application recommendations and then allowed to cure for at least 24 hours. At the end of the 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 at least 24 hours following application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Defacer Eraser® Graffiti Release, 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 Release..... 15 minutes
   - 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.

TEST RESULTS – Graffiti Control

"Red Burlington"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	95%	90%	100%	100%	**95%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	90%	100%	95%	100%	**96%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	95%	100%	100%	100%	**99%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	95%	100%	100%	100%	**99%**
"Camellia"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	60%	70%	90%	90%	**78%**
Graffiti Wipe	100%	90%	90%	90%	**93%**
Fast Acting Stripper	95%	95%	90%	90%	**93%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	85%	90%	100%	100%	**94%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	90%	95%	100%	100%	**96%**

TEST RESULTS – Graffiti Control (continued)

"Callaway"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	70%	50%	80%	95%	**74%**
Graffiti Wipe	90%	90%	80%	95%	**93%**
Fast Acting Stripper	85%	90 %	80%	95%	**88%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	70%	90%	95%	95%	**88%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	95 %	95%	100%	95%	**96%**
"Canterbury"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	60%	60%	80%	80%	**70%**
Graffiti Wipe	85%	80%	80%	80%	**81%**
Fast Acting Stripper	70%	80%	80%	80%	**73%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	40%	90%	90%	95%	**79%**
Graffiti Wipe	100%	95%	95%	100%	**98%**
Fast Acting Stripper	90%	90%	90%	95%	**91%**
"F/R Bark"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	80%	90%	90%	100%	**90%**
Graffiti Wipe	90%	90%	90%	100%	**93%**
Fast Acting Stripper	90%	95%	90%	100%	**94%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	75%	95%	95%	95%	**90%**
Graffiti Wipe	95%	100%	100%	100%	**99%**
Fast Acting Stripper	90%	100%	100%	100%	**98%**
"F/R Sand"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	90%	85%	90%	100%	**92%**
Graffiti Wipe	95%	95%	90%	100%	**95%**
Fast Acting Stripper	95%	100%	90%	100%	**96%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	100%	90%	100%	100%	**98%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**

TEST RESULTS – Graffiti Control (continued)

"Jefferson Manor"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	60%	60%	80%	80%	**70%**
Graffiti Wipe	85%	80%	80%	80%	**81%**
Fast Acting Stripper	75%	80%	80%	80%	**79%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	85%	100%	100%	100%	**96%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	90%	100%	100%	100%	**93%**
"Market St."					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	75%	80%	90%	95%	**85%**
Graffiti Wipe	90%	95%	95%	95%	**94%**
Fast Acting Stripper	80%	90%	90%	95%	**91%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	95%	80%	95%	95%	**91%**
Graffiti Wipe	100%	95%	100%	100%	**99%**
Fast Acting Stripper	95%	90%	95%	90%	**93%**
"Old Colony"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	75%	85%	95%	100%	**88%**
Graffiti Wipe	85%	100%	95%	100%	**95%**
Fast Acting Stripper	80%	100%	100%	100%	**95%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	100%	100%	100%	100%	**100%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**
"Old Waverly"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	80%	60%	60%	60%	**65 %**
Graffiti Wipe	95%	65%	65%	65%	**73%**
Fast Acting Stripper	80%	60%	60%	60%	**65%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	40%	80%	80%	80%	**70%**
Graffiti Wipe	100%	70%	70%	70%	**78%**
Fast Acting Stripper	80%	75%	75%	75 %	**76%**

TEST RESULTS – Graffiti Control (continued)

"Red Bark"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	90%	85%	90%	100%	**92%**
Graffiti Wipe	95%	95%	95%	100%	**96%**
Fast Acting Stripper	90%	85%	90%	100%	**92%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	80%	100%	100%	100%	**95%**
Graffiti Wipe	95%	100%	100%	100%	**99%**
Fast Acting Stripper	95%	100%	100%	100%	**99%**
"Red Sand"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	30%	40%	90%	95%	**44%**
Graffiti Wipe	85%	90%	90%	100%	**92%**
Fast Acting Stripper	80%	95%	90%	100%	**91%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	100%	100%	100%	100%	**100%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**
"Red Scratch"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	80%	90%	100%	100%	**93%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	95%	100%	100%	100%	**98%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	90%	100%	100%	**93%**
"Red Smooth"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	95%	95%	95%	100%	**96%**
Graffiti Wipe	100%	95%	95%	100%	**98%**
Fast Acting Stripper	95%	100%	95%	95%	**96%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	100%	100%	100%	100%	**100%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**

TEST RESULTS – Graffiti Control (continued)

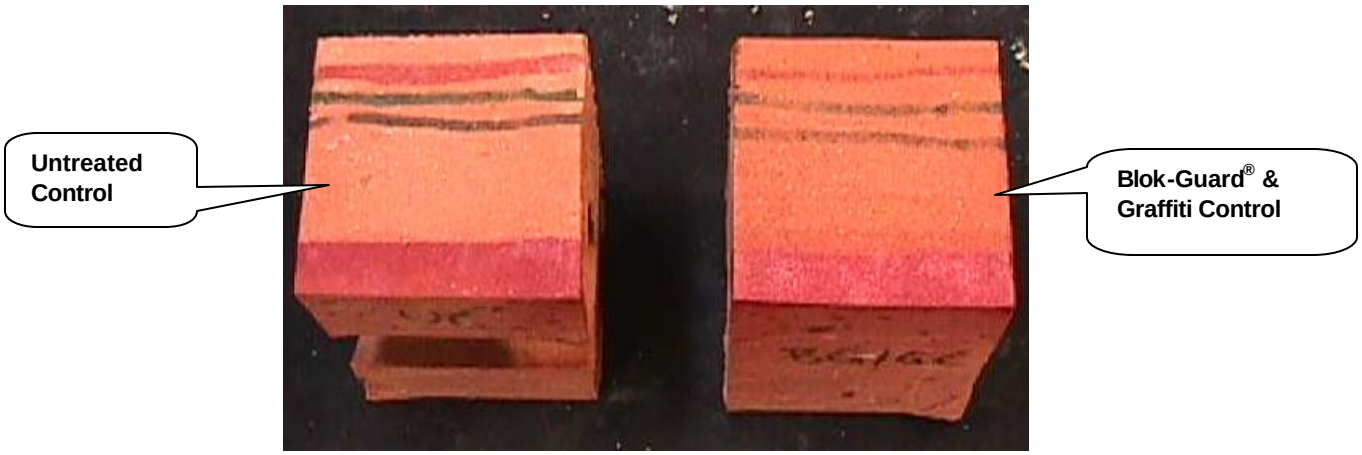
"Riverview"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	40%	70%	80%	90%	**70%**
Graffiti Wipe	85%	95%	100%	100%	**95%**
Fast Acting Stripper	80%	100%	95%	100%	**94%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	95%	95%	95%	95%	**95%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	95%	100%	100%	100%	**99%**
"Savannah Gray"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	70%	90%	95%	95%	**88%**
Graffiti Wipe	100%	95%	100%	100%	**99%**
Fast Acting Stripper	95%	100%	100%	100%	**99%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	30%	95%	95%	95%	**80%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	90 %	100%	100%	100%	**98%**
"Saxton"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	90%	100%	100%	100%	**93%**
Graffiti Wipe	95%	100%	100%	100%	**99%**
Fast Acting Stripper	90%	100%	100%	100%	**98%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	70%	100%	100%	100%	**93%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	95%	100%	100%	100%	**99%**
"St. Louis"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	90%	100%	100%	100%	**98%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	100%	90%	100%	100%	**93%**
Graffiti Wipe	100%	95%	100%	100%	**99%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**

TEST RESULTS – Graffiti Control (continued)

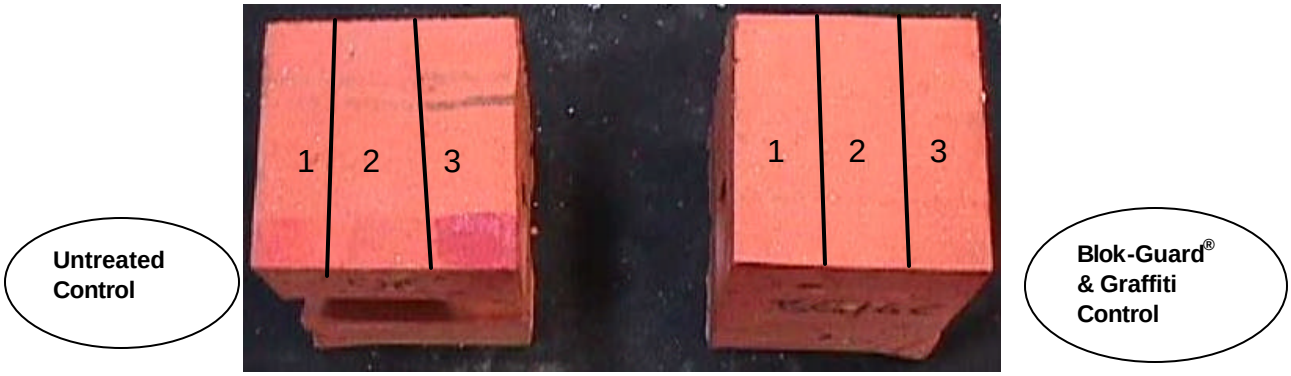
"Used"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	95%	90%	100%	100%	**96%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	95%	100%	100%	100%	**99%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	80%	100%	100%	100%	**95%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	100%	100%	100%	100%	**100%**
"Wakefield"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	90%	95%	100%	100%	**96%**
Graffiti Wipe	95%	100%	100%	100%	**99%**
Fast Acting Stripper	90%	100%	100%	100%	**98%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	40%	100%	95%	95%	**83%**
Graffiti Wipe	95%	100%	100%	100%	**99%**
Fast Acting Stripper	90%	100%	100%	100%	**93%**
"Yorktown"					
Untreated Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	90%	90%	95%	100%	**94%**
Graffiti Wipe	100%	90%	95%	100%	**96%**
Fast Acting Stripper	85%	100%	100%	100%	**96%**
Blok-Guard® & Graffiti Control	**Red Paint**	**Black Marker**	**Green Marker**	**Red Marker**	**% Avg. Removal**
Graffiti Release	70%	90%	100%	100%	**90%**
Graffiti Wipe	100%	100%	100%	100%	**100%**
Fast Acting Stripper	95%	100%	100%	100%	**99%**

PHOTOGRAPHS – Graffiti Control

"Red Sand" Before Graffiti Removal



"Red Sand" After Graffiti Removal



1. **Sure Klean® Fast Acting Stripper**
2. **Defacer Eraser® Graffiti Wipe**
3. **Defacer Eraser® Graffiti Release**

RECOMMENDATIONS – GRAFFITI CONTROL

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

Brick Type	Graffiti Repellents	Graffiti Removers
"Red Burlington" "F/R Bark" "Red Smooth" "Camellia" "Callaway" "Canterbury" "Jefferson Manor" "Market St."	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Defacer Eraser® Graffiti Wipe
"Red Scratch" "Savannah Gray" "Saxton" "St. Louis" "Used" "Wakefield" "Old Waverly" "Red Bark" "Riverview" "Yorktown"		Defacer Eraser® Graffiti Wipe OR Sure Klean® Fast Acting Stripper
"F/R Sand" "Old Colony" "Red Sand"		Defacer Eraser® Graffiti Wipe OR Sure Klean® Fast Acting Stripper OR Defacer Eraser® Graffiti Release

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 graffiti control product and procedure for a particular project. See product literature for application and product information.

Nathan R. Colaner
Technical Analyst

NRC/

Laboratory Report

Pallet Tag Program Evaluation

Columbus Brick Co., Columbus, MS

Project No. **0305-17 PTP**

Prepared For:

Butch Reed
Columbus Brick Company
Columbus, MS

Prepared By:

PROSOCO, Inc.
July 2003