

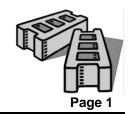
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Attachments

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





PROSOCO, Inc.

Submitted Information

For: Mark O' Keefe cc: Paul Tessier

Subject: McNear Brick & Block

San Rafael, CA

Date: July 8, 2005

Project: 0504-11 PTP

Samples Submitted: 8 types of clay brick

Name	Finish	Color/Coating	Size
"Cascada"	Sand	Tan/Red	8" x 2½" x 4"
"Hacienda"	Wire-cut	Tan	8" x 2½" x 4"
"Harmon"	Wire-cut	Red	8" x 2½" x 4"
"Melrose"	Engobe	Red/White	8" x 2½" x 4"
"Old Myford"	Sand	Red/Dark Red	8" x 2½" x 4"
"Rawhide"	Sand	Tan/Red	8" x 2½" x 4"
"Sahara"	Wire-cut	Tan/Red	8" x 2½" x 4"
"Santiago"	Sand	Tan/Red/White	8" x 2½" x 4"

Submitted by: Mark O'Keefe





Purpose of Testing

Eight types of clay brick were submitted to PROSOCO, Inc.'s Testing Laboratory with a request to determine if application of the products evaluated will produce any surface alteration during new construction cleaning operations. Additionally, the effectiveness of water repellents and graffiti repellents suitable for clay brick were evaluated.

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

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

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

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

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

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

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

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

Graffiti Repellency Evaluation – Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control II 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.





Products Evaluated

Products Evaluated for New Construction Cleaning

Sample	Treatment	Dilution
All Cub matter de Claus Defals	Sure Klean [®] Vana Trol [®]	1:6, 1:8
All Submitted Clay Brick	Enviro Klean [®] Safety Klean	1:2, 1:3

Protective Water Repellent Products Evaluated

Sample	Treatment	Dilution
All Submitted Clay Brick	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	Concentrate
All Submitted Glay Brick	Sure Klean [®] Weather Seal Siloxane PD	Concentrate

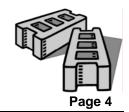
Graffiti Repellents Evaluated

Sample	Treatment	Dilution
All Submitted Clay Brick	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	Concentrate

Graffiti Repellents Evaluated

Sample	Treatment	Dilution
All Submitted Clay Brick	Sure Klean [®] Fast Acting Stripper	Concentrate
All Gubrillied Glay Blick	Defacer Eraser [®] Graffiti Wipe	Concentrate





New Construction Cleaning

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

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

<u>Description of Products Evaluated</u> – New Construction Cleaning

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.

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.

Test Method – New Construction Cleaning

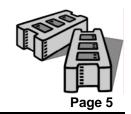
Dilution ratios refer to mixtures of concentrated cleaner: fresh water. Chemical cleaners were evaluated using the following procedure:

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

4. Pressure rinse thoroughly.*

*Pressure Rinsing Equipment – Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45 degree fan spray tip was used for rinsing.





Test Results – New Construction Cleaning

% removal

"Cascada"							
Product	Dilution	7 day	14 day	21 day			
Sure Klean [®] Vana Trol [®]	1:6	100%	100%	100%			
Sure Klean [®] Vana Trol [®]	1:8	100%	100%	99%			
Enviro Klean [®] Safety Klean	1:2	100%	100%	100%			
Enviro Klean [®] Safety Klean	1:3	99%	100%	99%			
"Hacienda"							
Product Dilution 7 day 14 day 21 day							
Sure Klean [®] Vana Trol [®]	1:6	100%	100%	100%			
Sure Klean [®] Vana Trol [®]	1:8	100%	100%	100%			
Enviro Klean [®] Safety Klean	1:2	100%	100%	100%			
Enviro Klean [®] Safety Klean Enviro Klean [®] Safety Klean	1:3	100%	100%	99%			
	"Harmor	n"					
Product	Dilution	7 day	14 day	21 day			
Sure Klean [®] Vana Trol [®]	1:6	100%	100%	100%			
Sure Klean [®] Vana Trol [®]	1:8	99%	98%	95%			
Enviro Klean [®] Safety Klean	1:2	100%	99%	99%			
Enviro Klean [®] Safety Klean	1:3	100%	98%	95%			
	"Melrose	; "					
Product	Dilution	7 day	14 day	21 day			
Sure Klean [®] Vana Trol [®]	1:6	100%	99%	98%			
Sure Klean [®] Vana Trol [®]	1:8	100%	95%	90%			
Enviro Klean [®] Safety Klean	1:2	100%	100%	100%			
Enviro Klean [®] Safety Klean	1:3	100%	100%	100%			
	"Old Myfo	rd"					
Product	Dilution	7 day	14 day	21 day			
Sure Klean [®] Vana Trol [®]	1:6	100%	99%	99%			
Sure Klean [®] Vana Trol [®]	1:8	99%	99%	95%			
Enviro Klean [®] Safety Klean	1:2	100%	99%	99%			
Enviro Klean [®] Safety Klean	1:3	100%	98%	95%			
	"Rawhide	e"					
Product	Dilution	7 day	14 day	21 day			
Sure Klean [®] Vana Trol [®]	1:6	100%	100%	100%			
Sure Klean [®] Vana Trol [®]	1:8	100%	100%	99%			
Enviro Klean [®] Safety Klean	1:2	100%	99%	99%			
Enviro Klean [®] Safety Klean	1:3	100%	99%	98%			
	"Sahara	"					
Product	Dilution	7 day	14 day	21 day			
Sure Klean [®] Vana Trol [®]	1:6	100%	99%	99%			
Sure Klean [®] Vana Trol [®]	1:8	100%	98%	98%			
Enviro Klean® Safety Klean	1:2	100%	99%	99%			
Enviro Klean® Safety Klean							





Test Results - New Construction Cleaning

% removal

"Santiago"					
Product	Dilution	7 day	14 day	21 day	
Sure Klean [®] Vana Trol [®]	1:6	100%	100%	100%	
Sure Klean [®] Vana Trol [®]	1:8	100%	100%	100%	
Enviro Klean [®] Safety Klean	1:2	100%	98%	98%	
Enviro Klean [®] Safety Klean	1:3	100%	98%	98%	

Test Results – Limiting Surface Alterations

Substrate: Clay Brick	Pigment Co	olor: "Cascada"			
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
Substrate: Clay Brick	Pigment Co	Pigment Color: "Hacienda"			
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
	Pigment Color: "Harmon"				
Substrate: Clay Brick	Pigment Co	olor: "Harmon"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
		Surface Finish			Staining 0
Product	Dilution	Surface Finish Removal	Deterioration	Change	_
Product Sure Klean® Vana Trol®	Dilution 1:6	Surface Finish Removal 0	Deterioration 0	Change 0	0
Product Sure Klean [®] Vana Trol [®] Sure Klean [®] Vana Trol [®]	Dilution 1:6 1:8	Surface Finish Removal 0	Deterioration 0 0	Change 0 0	0
Product Sure Klean [®] Vana Trol [®] Sure Klean [®] Vana Trol [®] Enviro Klean [®] Safety Klean	Dilution 1:6 1:8 1:2 1:3	Surface Finish Removal 0 0	Deterioration 0 0 0	Change 0 0 0	0 0
Product Sure Klean® Vana Trol® Sure Klean® Vana Trol® Enviro Klean® Safety Klean Enviro Klean® Safety Klean Substrate: Clay Brick Product	Dilution 1:6 1:8 1:2 1:3	Surface Finish Removal 0 0 0	Deterioration 0 0 0	Change 0 0 0	0 0
Product Sure Klean® Vana Trol® Sure Klean® Vana Trol® Enviro Klean® Safety Klean Enviro Klean® Safety Klean Substrate: Clay Brick	Dilution 1:6 1:8 1:2 1:3 Pigment Co	Surface Finish Removal 0 0 0 0 0 slor: "Melrose" Surface Finish	Deterioration 0 0 0 0 0 Substrate	Change 0 0 0 0 0 Color	0 0 0 0
Product Sure Klean® Vana Trol® Sure Klean® Vana Trol® Enviro Klean® Safety Klean Enviro Klean® Safety Klean Substrate: Clay Brick Product	Dilution 1:6 1:8 1:2 1:3 Pigment Co	Surface Finish Removal 0 0 0 0 0 slor: "Melrose" Surface Finish	Deterioration 0 0 0 0 Substrate Deterioration	Change 0 0 0 0 Color Change	0 0 0 0
Product Sure Klean® Vana Trol® Sure Klean® Vana Trol® Enviro Klean® Safety Klean Enviro Klean® Safety Klean Substrate: Clay Brick Product Sure Klean® Vana Trol®	Dilution 1:6 1:8 1:2 1:3 Pigment Co Dilution 1:6	Surface Finish Removal 0 0 0 0 0 slor: "Melrose" Surface Finish	Deterioration 0 0 0 0 Substrate Deterioration 0	Change 0 0 0 0 Color Change 0	0 0 0 0 0 Staining

0 – No change

3 – change – heavy

1 - change - slight

4 - change - excessive

2 – change – moderate





<u>Test Results</u> – Limiting Surface Alterations (Continued)

Substrate: Clay Brick	Pigment Co	olor: "Old Myford"	,		
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
Substrate: Clay Brick	Pigment Color: "Rawhide"				
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
Substrate: Clay Brick	Pigment Co	olor: "Sahara"			
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
Substrate: Clay Brick	Pigment Co	olor: "Santiago"			
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





Photographs - New Construction Cleaning

"Hacienda" Clay Brick; 7 Day Cleaning



"Hacienda" Clay Brick; 14 Day Cleaning



"Hacienda" Clay Brick; 21 Day Cleaning





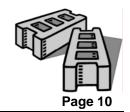


Photographs – Limiting Surface Alterations

"Hacienda" Clay Brick; Limiting Surface Alterations







Conclusions – New Construction Cleaning

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

*NOTE: Both dilutions of Enviro Klean[®] Safety Klean and Sure Klean[®] Vana Trol[®], combined with surface agitation, removed slight amounts of the white engobe finish from the surface of the "Melrose" clay brick.

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

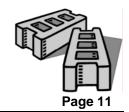
<u>Recommendations</u> – New Construction Cleaning

Recommendations for cleaning for each type of clay brick submitted by McNear Brick & Block, San Rafael, CA are provided in the charts below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations.

Sample	New Construction Cleaning (Type N mortar, 21 day cleaning)
All Submitted Clay Brick	Enviro Klean [®] Safety Klean (1:2) OR (1:3) OR Sure Klean [®] Vana Trol [®] (1:6) OR (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.





Protective Water Repellents

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

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

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

Description of Products Evaluated – Protective Water Repellents

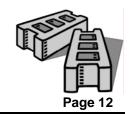
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II – A clear-drying, water-based silicone emulsion for weatherproofing concrete block and other porous masonry materials. Blok-Guard® & Graffiti Control II also protects masonry surfaces from graffiti attacks without altering the natural appearance. Blok-Guard® & Graffiti Control II protects exterior walls exposed to normal weathering. Graffiti removal from treated surfaces is fast and easy using Defacer Eraser® Graffiti Wipe. Blok-Guard® & Graffiti Control II is easy to apply with low-pressure spray, brush or roller.

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.

Sample Preparation – Protective Water Repellents

The submitted brick were cut, air-dried, and allowed to reabsorb atmospheric humidity for at least 24 hours prior to treatment. Both treatments were applied by brush in accordance with PROSOCO, Inc.'s 2005 Product Guide. Both treatments were allowed to cure for at least 3 days prior to testing.





Test Methods – Protective Water Repellents

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

The water absorption tube test simulating wind driven and wind blown rain conditions was performed. Tests were run with 5.0-milliliter head pressures. Filled to 5 milliliters, a water absorption tube produces a 98 mph dynamic wind pressure. See RILEM II.4 Tech Note for additional information.

The ranking system used to evaluate the effectiveness of the products applied to each submitted sample is as follows:

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 \underline{AA} Above Average water repellent performance would require loss of no more than 5 ml X 20% = 1 ml.

A rating of $\underline{\mathbf{A}}$ Average water repellent performance would require loss of no more than 5 ml X 50% = 2.5ml.

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





Test Results – Protective Water Repellents

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

 \underline{AA} = Above Average \underline{A} = Average \underline{BA} = Below Average

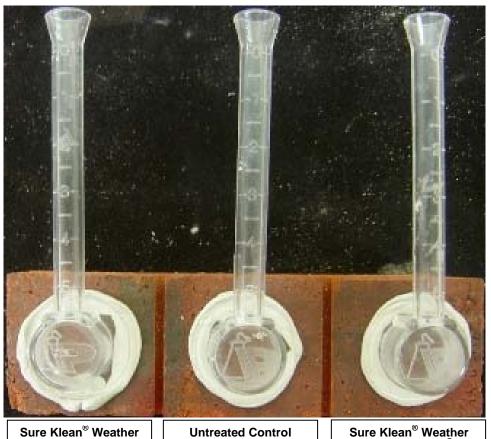
"Cascada"	Results in mL loss	Ranking
Untreated Control	-0.5	
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	-0.0	AA
Sure Klean® Weather Seal Siloxane PD	-0.0	AA
"Hacienda"	Results in mL loss	Ranking
Untreated Control	-4.5	
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	-0.5	AA
Sure Klean® Weather Seal Siloxane PD	-0.8	AA
"Harmon"	Results in mL loss	Ranking
Untreated Control	-4.0	
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	-0.0	AA
Sure Klean® Weather Seal Siloxane PD	-0.3	<u>AA</u>
"Melrose"	Results in mL loss	Ranking
Untreated Control	-0.6	
Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	-0.1	<u>AA</u>
Sure Klean® Weather Seal Siloxane PD	-0.2	<u>A</u>
"Old Myford"	Results in mL loss	Ranking
Untreated Control	-0.3	
Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	-0.0	<u>AA</u>
Sure Klean [®] Weather Seal Siloxane PD	-0.0	<u>AA</u>
"Rawhide"	Results in mL loss	Ranking
Untreated Control	-0.1	
Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	-0.0	<u>AA</u>
Sure Klean® Weather Seal Siloxane PD	-0.0	<u>AA</u>
"Sahara"	Results in mL loss	Ranking
	-3.8	
Untreated Control	-3.0	
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	-0.1	<u>AA</u>
		<u>AA</u> <u>AA</u>
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	-0.1	
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II Sure Klean® Weather Seal Siloxane PD "Santiago" Untreated Control	-0.1 -0.3	AA
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II Sure Klean® Weather Seal Siloxane PD "Santiago"	-0.1 -0.3 Results in mL loss	AA





Photographs – Protective Water Repellents

"Harmon"; RILEM Testing



Sure Klean® Weather Seal Siloxane PD

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





Conclusions – Protective Water Repellents

Test results indicate that at least one of the treatments evaluated exhibited above average water repellency on all submitted clay brick. In addition, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II slightly enhanced the appearance of the clay brick. Sure Klean® Weather Seal Siloxane PD did not alter the appearance of any of the submitted clay brick in any way.

Recommendations – Protective Water Repellents

Recommendations for water repellent treatments for each type of clay brick submitted by McNear Brick & Block, San Rafael, CA are provided in the chart below. Recommendations are based on the treatments that proved most effective and can provide water repellency on all types indicated.

Sample	Water Repellents
"Cascada" "Hacienda" "Harmon" "Old Myford" "Rawhide" "Sahara"	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II OR Sure Klean [®] Weather Seal Siloxane PD
"Melrose" "Santiago"	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II

It must be pointed out that in any installation, the brick are a single component of the masonry facade. The ability of a water repellent treatment to prevent the ingress of water is affected by a variety of other factors. Therefore, on-site testing should be carried out for all installations with the recommended systems to ensure job site workmanship yields equivalent results.

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





Graffiti Control

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

Description of Products Evaluated – Graffiti Control

Graffiti Control Treatments

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II – A clear-drying, water-based silicone emulsion for weatherproofing concrete block and other porous masonry materials. Blok-Guard® & Graffiti Control II also protects masonry surfaces from graffiti attacks without altering the natural appearance. Blok-Guard® & Graffiti Control II protects exterior walls exposed to normal weathering. Graffiti removal from treated surfaces is fast and easy using Defacer Eraser® Graffiti Wipe. Blok-Guard® & Graffiti Control II is easy to apply with low-pressure spray, brush or roller.

Products Evaluated for Graffiti Removal

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.

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, split-face concrete block, wood and metal surfaces.

Graffiti Agents

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





Sample Preparation – Graffiti Control

This evaluation compares the effectiveness of the treatments tested to the untreated surfaces of the submitted samples in preventing staining of enamel spray paint and permanent markers.

Sections of the clay brick samples were treated with Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II in accordance with PROSOCO, Inc.'s 2005 Product Guide application recommendations and then allowed to cure for at least one day. At the end of the one-day cure period, a visual adverse effects evaluation was made and then the graffiti agents were applied to the substrates.

Spray paint and markers were applied as graffiti agents to all treated surfaces no sooner than one day following application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II. 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:

- 3. Pressure rinse thoroughly until water runs clear.*
- 4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

*Pressure Rinsing Equipment - Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45 degree fan spray tip was used for rinsing.





<u>Test Results</u> – Graffiti Control

Untreated Control Red Paint Black Marker Green Marker % Avg. Removal 75% 95% 20% 90% 75% 80% 66% 80% 66% 80% 66% 80% 66% 80% 66% 80% 66% 80% 66% 80% 66% 80% 66% 80% 86% 80% 66% 80% 86% 80% 86% 80% 86% 80% 86% 80% 80% 86% 80% 80% 86% 80%	"Cascada"					
Graffiti Wipe	Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Blok-Guard® & Graffiti Control II Red Paint Sack Marker Seen Mar	Fast Acting Stripper	95%	95%	20%	90%	75%
Fast Acting Stripper	Graffiti Wipe	75%	40%	70%	80%	66%
Caraffiti Wipe	Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Ware		95%	98%	60%	90%	86%
Untreated Control Red Paint Black Marker Green Marker 75% 75% 84% 84% 75% 75% 75% 65% 75% 75% 75% 84% 75% 75% 84% 75% 75% 84% 75% 75% 84% 75% 75% 84% 75% 75% 84% 75% 75% 84% 75% 84% 75% 75% 75% 84% 75	Graffiti Wipe	95%	70%	95%	98%	90%
Fast Acting Stripper	·		"Hacienda"			
Graffiti Wipe 90% 20% 75% 75% 65% Blok-Guard® & Graffiti Control II Red Paint 100% 95% 90% 90% 94% Graffiti Wipe 100% 95% 90% 90% 94% Wind Paint Wipe 95% 100% 80% 100% 94% Graffiti Wipe 90% 85% 80% 100% 89% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker Way. Removal Fast Acting Stripper 100% 95% 90% 100% 96% Wind Paint Wipe 90% 95% 90% 100% 96% Wind Paint Wipe 90% 85% 90% 100% 96% Wind Paint Wipe 90% 85% 70% 50% 74% Graffiti Wipe 90% 20% 70% 75% 64% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker Way. Removal Fast Acting Stripper 90% 85% 80% 85% 80% 88% Graffiti Wipe 90% 20% 70% 75% 64% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker Way. Removal Fast Acting Stripper 98% 90% 85% 80% 88% Graffiti Wipe 98% 85% 85% 80% 88% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker Way. Removal Fast Acting Stripper 95% 100% 100% 100% 99% Graffiti Wipe 95% 100% 100% 100% 100% Graffiti Wipe 95% 100% 100% 100% 100% Graffiti Wipe 100% 100% 100% 100% 100% Graffiti Wipe 100% 100% 100% 100% 100% Graffiti Wipe 100% 100% 100% 100% 100% Fast Acting Stripper 100% 95% 85% 85% 91% Winterated Control Red Paint Black Marker Green Marker Red Marker Way. Removal Fast Acting Stripper 100% 100% 100% 100% 100% Graffiti Wipe 100% 95% 85% 85% 91% Winterated Control Red Paint Black Marker Red Marker Way. Removal 100%		Red Paint	Black Marker	Green Marker		% Avg. Removal
Blok-Guard	Fast Acting Stripper	90%	95%	75%	75%	84%
Fast Acting Stripper	Graffiti Wipe	90%	20%	75%	75%	65%
Section Company Comp	Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Company	Fast Acting Stripper	100%	95%	90%	90%	94%
Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 95% 100% 80% 100% 94% Graffiti Wipe 90% 85% 80% 100% 89% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 90% 100% 98% Graffiti Wipe 90% 85% 90% 100% 96% "Melrose" Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 90% 85% 70% 50% 74% Graffiti Wipe 90% 20% 70% 75% 64% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 95% 100% 100% 100% 99% Graffiti Wipe <td>Graffiti Wipe</td> <td>100%</td> <td>95%</td> <td>90%</td> <td>90%</td> <td>94%</td>	Graffiti Wipe	100%	95%	90%	90%	94%
Fast Acting Stripper 95% 100% 80% 100% 94% 80% 100% 89% 80% 100% 89% 80% 80% 100% 89% 80% 80% 100% 89% 80%	·		"Harmon"			
Straffiti Wipe 90% 85% 80% 100% 89%	Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Blok-Guard® & Graffiti Control II Red Paint Past Acting Stripper Black Marker 100% Green Marker 90% Red Marker 100% % Avg. Removal 100% 99% 100% 98% 98% 98% 98% 98% 98% 98% 98% 98% 98% 96% 98% 96% 76% 50% 74% 66% 76% 64% 96% 90% 20% 70% 75% 64% 96% 90% 20% 70% 75% 64% 96% 90% 85% 80% 85% 80% 88% 80% 85% 80% 85% 80% 85% 80% 85% 80% 85% 80% 85% 80% 85% 80% <th< td=""><td>Fast Acting Stripper</td><td>95%</td><td>100%</td><td>80%</td><td>100%</td><td>94%</td></th<>	Fast Acting Stripper	95%	100%	80%	100%	94%
Fast Acting Stripper 100% 100% 90% 100% 98% Graffiti Wipe 100% 95% 90% 100% 96% "Melrose" Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 90% 20% 70% 75% 64% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 98% 90% 85% 80% 88% Graffiti Wipe 98% 85% 85% 80% 88% Graffiti Wipe 98% 85% 85% 80% 87% Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 95% 100% 100% 100% 99% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal <	Graffiti Wipe	90%	85%	80%	100%	89%
Stripper 100% 95% 90% 100% 96%	Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Welrose Warden	Fast Acting Stripper	100%	100%			
Variable Variable	Graffiti Wipe	100%	95%	90%	100%	96%
Fast Acting Stripper 90% 85% 70% 50% 74% Graffiti Wipe 90% 20% 70% 75% 64% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 98% 85% 85% 80% 88% Graffiti Wipe 98% 85% 85% 80% 87% Untreated 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% Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 100% 100% 100% 100% Graffiti Wipe 100% 85% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	•		"Melrose"	l		
Graffiti Wipe 90% 20% 70% 75% 64% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 98% 90% 85% 80% 88% Graffiti Wipe 98% 85% 85% 80% 87% Untreated 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% Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 100% 100% 100% 100% Graffiti Wipe 100% 100% 100% 100% 100% Hast Acting Stripper 100% 100% 100% 100% 100% Hast Acting Stripper 100% 95% 85% 85% 91% Gr	Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 98% 90% 85% 80% 88% Graffiti Wipe 98% 85% 80% 87% Untreated 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% Blok-Guard® & Graffiti Control II 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% Whater Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95%	Fast Acting Stripper	90%	85%	70%	50%	74%
Fast Acting Stripper 98% 90% 85% 80% 88% Graffiti Wipe 98% 85% 85% 80% 87% Untreated 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% Blok-Guard® & Graffiti Control II 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% Whater Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	Graffiti Wipe	90%	20%	70%	75%	64%
Graffiti Wipe 98% 85% 85% 80% 87% "Old Myford" Untreated 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% Blok-Guard® & Graffiti Control II 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% Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
"Old Myford" Untreated 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% Blok-Guard® & Graffiti Control II 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% Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	Fast Acting Stripper	98%	90%	85%	80%	88%
Untreated 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% Blok-Guard® & Graffiti Control II 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% 100% Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	Graffiti Wipe	98%	85%	85%	80%	87%
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Graffiti Wipe 95% 100% 100% 100% 99% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 100% 100% 100% 100% 100% "Rawhide" Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%		Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Graffiti Wipe 95% 100% 100% 100% 99% Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 100% 100% 100% 100% 100% "Rawhide" Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	Fast Acting Stripper	95%	100%	100%	100%	99%
Fast Acting Stripper 100% 100% 100% 100% Graffiti Wipe 100% 100% 100% 100% "Rawhide" Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	Graffiti Wipe				100%	99%
Graffiti Wipe 100% 100% 100% 100% "Rawhide" Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%	Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
"Rawhide" Untreated Control Red Paint Black Marker Green Marker Red Marker % Avg. Removal Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%		100%		100%	100%	100%
Untreated ControlRed PaintBlack MarkerGreen MarkerRed Marker% Avg. RemovalFast Acting Stripper100%95%85%85%91%Graffiti Wipe100%95%85%85%91%	Graffiti Wipe	100%		100%	100%	100%
Fast Acting Stripper 100% 95% 85% 85% 91% Graffiti Wipe 100% 95% 85% 85% 91%						
Graffiti Wipe 100% 95% 85% 85%	Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
	Fast Acting Stripper	100%	95%	85%		91%
Blok-Guard® & Graffiti Control II Red Paint Black Marker Green Marker Red Marker % Avg. Removal				85%	85%	91%
· · · · · · · · · · · · · · · · · · ·	Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper 100% 98% 98% 99% 99%	Fast Acting Stripper	100%	98%	98%	99%	
Graffiti Wipe 100% 95% 98% 99% 98%	Graffiti Wipe	100%	95%	98%	99%	98%





<u>Test Results</u> – Graffiti Control

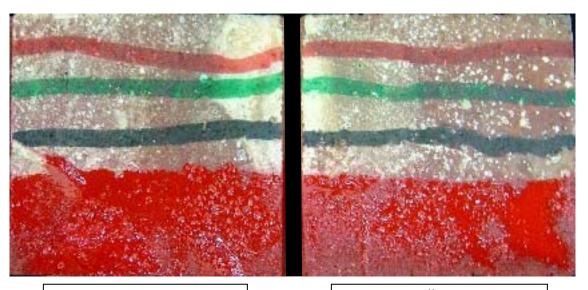
"Sahara"					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	95%	75%	70%	81%
Graffiti Wipe	85%	30%	75%	70%	65%
Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	95%	85%	95%	94%
Graffiti Wipe	99%	95%	85%	95%	94%
"Santiago"					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	99%	85%	85%	89%
Graffiti Wipe	90%	20%	85%	85%	70%
Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	95%	98%	98%
Graffiti Wipe	98%	98%	95%	98%	97%





Photographs - Graffiti Control

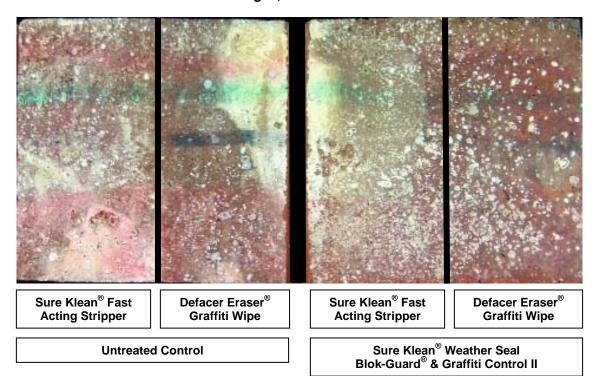
"Santiago"; Graffiti Applied



Untreated Control

Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control II

"Santiago"; Graffiti Removed







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Conclusions – Graffiti Control

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

Recommendations - Graffiti Control

Recommendations for graffiti control treatment for each type of clay brick submitted by McNear Brick & Block, San Rafael, CA are provided in the chart below. Recommendations are based on the treatment that proved most effective for providing graffiti repellency and the product that was most effective at removing the graffiti on all types of clay brick submitted.

Sample	Graffiti Repellents	Graffiti Removers
All Submitted Clay Brick	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	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. See product literature for additional application and product information.

Christopher A. Moore

Project Testing Laboratory Technician

CAM



Laboratory Report

Pallet Tag Program Evaluation

McNear Brick & Block: Brick San Rafael, CA

Project No. 0504-11 PTP

Prepared For:

McNear Brick & Block One McNear Brickyard Road San Rafael, CA 94901

Prepared By:

PROSOCO, Inc. June 2005