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Attachments

 Technical Services TECH Note RILEM Tube Test Procedures

 Product Data literature for all products evaluated

Submitted Information

For: Matt Henderson
Cc: Paul Tessier

Subject: Cloud Ceramics
 Concordia, KS

Date: July 20, 2006

Project: 0606-14 PTP

Samples Submitted: 32 types of clay brick

Name	Color	Finish/Coating	Size
"508L"	White	Velour	7 ½" x 2 ¼" x 3 ½"
"Black Diamond"	Black/Brown	Velour	7 ½" x 2 ¼" x 3 ½"
"Bronze"	Dark Tan	Velour	7 ½" x 2 ¼" x 3 ½"
"Brown Iron Tone"	Brown Black	Velour	7 ½" x 2 ¼" x 3 ½"
"Brown Tweed"	Brown	Velour	7 ½" x 2 ¼" x 3 ½"
"Burgundy"	Dark Red	Velour	7 ½" x 2 ¼" x 3 ½"
"Cameo"	Dark Pink	Velour	7 ½" x 2 ¼" x 3 ½"
"Cherokee"	Dark Pink	Velour	7 ½" x 2 ¼" x 3 ½"
"Cimarron"	Dark Brown	Velour	7 ½" x 2 ¼" x 3 ½"
"Cocoa Brown"	Dark Brown	Velour	7 ½" x 2 ¼" x 3 ½"
"Coffee"	Brown	Velour	7 ½" x 2 ¼" x 3 ½"
"Coral"	Pink	Velour	7 ½" x 2 ¼" x 3 ½"
"Coral Sand"	Pink	Sand	7 ½" x 2 ¼" x 3 ½"
"Coronado"	Light Tan	Velour	7 ½" x 2 ¼" x 3 ½"
"Crimson"	Dark Red/Black/Brown	Velour	7 ½" x 2 ¼" x 3 ½"
"Driftwood"	Tan	Velour	7 ½" x 2 ¼" x 3 ½"
"Earthtone"	Brown/Tan/Black	Colonial	7 ½" x 2 ¼" x 3 ½"
"Ebony"	Dark Brown/Black	Velour	7 ½" x 2 ¼" x 3 ½"
"Frontier"	Red/Pink	Velour	7 ½" x 2 ¼" x 3 ½"
"Grey Granite"	Grey/Brown	Velour	7 ½" x 2 ¼" x 3 ½"
"Greystone"	Light Tan	Velour	7 ½" x 2 ¼" x 3 ½"
"Kansa Gold"	Tan	Velour	7 ½" x 2 ¼" x 3 ½"
"Light Autumn"	Tan	Velour	7 ½" x 2 ¼" x 3 ½"
"Light Ivory"	White	Velour	7 ½" x 2 ¼" x 3 ½"
"Old Heritage"	Tan/Brown	Antique	7 ½" x 2 ¼" x 3 ½"
"Old Homestead"	Red/White/Black	Rustic	7 ½" x 2 ¼" x 3 ½"
"Old Mission"	Tan/White	Rustic	7 ½" x 2 ¼" x 3 ½"
"Old Rose"	Dark Pink	Velour	7 ½" x 2 ¼" x 3 ½"
"Old Smoky"	Red/Black	Velour	7 ½" x 2 ¼" x 3 ½"
"Pawnee Sand"	Brown/Red/Black	Sand	7 ½" x 2 ¼" x 3 ½"
"Sahara Light Buff"	Light Tan	Velour	7 ½" x 2 ¼" x 3 ½"
"Terracotta"	Tan	Velour	7 ½" x 2 ¼" x 3 ½"

Submitted by: Matt Henderson

Introduction

Architectural Materials Testing (AMT) Laboratories is a Boyer Industries company that provides laboratory testing and consulting services for the construction industry. Laboratory testing includes evaluating chemical cleaning products and protective treatments for a variety of new and existing architectural materials.

This report includes descriptions of the PROSOCO, Inc. products and test methods that were used. Following test results and conclusions, the report provides recommendations for the most effective products and procedures.

Purpose of Testing

Thirty-two types of clay brick were submitted to AMT Laboratories by PROSOCO, Inc. with a request to determine the optimal cleaning/cure time combination to most efficiently remove Type S mortar from the submitted clay brick while limiting surface alterations to the decorative finish. Additionally, the effectiveness of water repellents and graffiti control products suitable for clay brick were evaluated.

New Construction Cleaning – Enviro Klean[®] Safety Klean, Sure Klean[®] Vana Trol[®] and/or Sure Klean[®] 600 Detergent were tested at various dilutions to determine the optimal cleaning/cure time combination to most efficiently remove Type S 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 S 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 S mortar after 3, 7 and 14 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:

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.

Protective Water Repellents – Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control, 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 Control – Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control and Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control II were evaluated for their 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		Product	Dilution
"508L" "Black Diamond" "Bronze" "Brown Iron Tone" "Brown Tweed" "Cameo" "Cherokee" "Cimarron" "Cocoa Brown" "Coffee" "Coral" "Coral Sand" "Coronado" "Crimson" "Driftwood"	"Earthtone" "Ebony" "Frontier" "Grey Granite" "Greystone" "Kansa Gold" "Light Autumn" "Light Ivory" "Old Heritage" "Old Homestead" "Old Mission" "Old Smoky" "Pawnee Sand" "Sahara Light Buff" "Terracotta"	Sure Klean® Vana Trol®	1:6, 1:8
		Enviro Klean® Safety Klean	1:2, 1:3
"Burgundy" "Old Rose"		Sure Klean® 600 Detergent	1:6, 1:8
		Enviro Klean® Safety Klean	1:2, 1:3

Protective Water Repellent Products Evaluated

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

Graffiti Repellents Evaluated

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

Graffiti Repellents Evaluated

Sample	Product	Dilution
All Submitted Clay Brick	Sure Klean® Fast Acting Stripper	Concentrate
	Defacer Eraser® Graffiti Wipe	Concentrate

Dilution ratios refer to mixtures of concentrated product : fresh water

New Construction Cleaning

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

Type S mortar was prepared in compliance with the manufacturer’s instructions, applied to the brick surface and allowed to cure for 3, 7 and 14 days. Mortar removal was accomplished using chemical assistance and a high-pressure water rinse with pressure rinsing equipment. The removal of Type S masonry mortar was visually evaluated after 3, 7 and 14 days of curing. A visual examination was also made to determine if the tested cleaners caused any surface alterations to the submitted clay brick.

Description of Products Evaluated – New Construction Cleaning

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

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

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

New construction 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.

Sure Klean® 600 Detergent.....	3-5 minutes
Sure Klean® Vana Trol®	3-5 minutes
Enviro Klean® Safety Klean.....	3-5 minutes
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**Cleaning Effectiveness (% Type S Mortar Removal)**

“508L”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Black Diamond”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Bronze”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Brown Iron Tone”				
Product	Dilution	3 day	7 day	14 day
Sure Klean® Vana Trol®	1:6	99%	99%	98%
Sure Klean® Vana Trol®	1:8	99%	99%	98%
Enviro Klean® Safety Klean	1:2	99%	98%	95%
Enviro Klean® Safety Klean	1:3	98%	98%	95%
“Brown Tweed”				
Product	Dilution	3 day	7 day	14 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
Sure Klean® Vana Trol®	1:8	100%	99%	99%
Enviro Klean® Safety Klean	1:2	100%	99%	99%
Enviro Klean® Safety Klean	1:3	99%	99%	98%
“Burgundy”				
Product	Dilution	3 day	7 day	14 day
Sure Klean® 600 Detergent	1:6	100%	100%	100%
Sure Klean® 600 Detergent	1:8	100%	100%	100%
Enviro Klean® Safety Klean	1:2	99%	99%	98%
Enviro Klean® Safety Klean	1:3	99%	99%	98%
“Cameo”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Cherokee”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%

Test Results – New Construction Cleaning**Cleaning Effectiveness (% Type S Mortar Removal)**

“Cimarron”				
Product	Dilution	3 day	7 day	14 day
Sure Klean® Vana Trol®	1:6	100%	100%	100%
Sure Klean® Vana Trol®	1:8	99%	99%	99%
Enviro Klean® Safety Klean	1:2	100%	99%	95%
Enviro Klean® Safety Klean	1:3	99%	99%	95%
“Cocoa Brown”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Coffee”				
Product	Dilution	3 day	7 day	14 day
Sure Klean® Vana Trol®	1:6	99%	99%	98%
Sure Klean® Vana Trol®	1:8	99%	99%	98%
Enviro Klean® Safety Klean	1:2	99%	98%	98%
Enviro Klean® Safety Klean	1:3	99%	98%	95%
“Coral Sand”				
Product	Dilution	3 day	7 day	14 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%	98%
Enviro Klean® Safety Klean	1:3	100%	100%	98%
“Coral”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Coronado”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Crimson”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Driftwood”				
Product	Dilution	3 day	7 day	14 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%	95%	95%

Test Results – New Construction Cleaning**Cleaning Effectiveness (% Type S Mortar Removal)**

“Earthtone”				
Product	Dilution	3 day	7 day	14 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%	95%	95%
“Ebony”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Frontier”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Grey Granite”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Greystone”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Kansa Gold”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Light Autumn”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Light Ivory”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	98%

Test Results – New Construction Cleaning**Cleaning Effectiveness (% Type S Mortar Removal)**

“Old Heritage”				
Product	Dilution	3 day	7 day	14 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	1:3	98%	98%	98%
“Old Homestead”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Old Mission”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Old Rose”				
Product	Dilution	3 day	7 day	14 day
Sure Klean® 600 Detergent	1:6	100%	100%	100%
Sure Klean® 600 Detergent	1:8	100%	100%	100%
Enviro Klean® Safety Klean	1:2	100%	100%	100%
Enviro Klean® Safety Klean	1:3	100%	100%	100%
“Old Smoky”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Pawnee Sand”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Sahara Light Buff”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%
“Terracotta”				
Product	Dilution	3 day	7 day	14 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	1:3	100%	100%	100%

Test Results – Limiting Surface Alterations

Substrate: Clay Brick		Pigment Color: "508L"			
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: "Black Diamond"			
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: "Bronze"			
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: "Brown Iron Tone"			
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: "Brown Tweed"			
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: "Burgundy"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® 600 Detergent	1:6	0	0	0	0
Sure Klean® 600 Detergent	1:8	0	0	0	0
Enviro Klean® Safety Klean	1:2	0	0	0	0
Enviro Klean® Safety Klean	1:3	0	0	0	0
Substrate: Clay Brick		Pigment Color: "Cameo"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Vana Trol®	1:6	0	0	0	0
Sure Klean® Vana Trol®	1:8	0	0	0	0
Enviro Klean® Safety Klean	1:2	0	0	0	0
Enviro Klean® Safety Klean	1:3	0	0	0	0

0 – No change

1 – change – slight

2 – change – moderate

3 – change – heavy

4 – change - excessive

Test Results – Limiting Surface Alterations

Substrate: Clay Brick		Pigment Color: "Cherokee"			
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: "Cimarron"			
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: "Cocoa Brown"			
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: "Coffee"			
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: "Coral"			
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: "Coral 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
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: "Coronado"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Vana Trol®	1:6	0	0	0	0
Sure Klean® Vana Trol®	1:8	0	0	0	0
Enviro Klean® Safety Klean	1:2	0	0	0	0
Enviro Klean® Safety Klean	1:3	0	0	0	0

0 – No change

1 – change – slight

2 – change – moderate

3 – change – heavy

4 – change - excessive

Test Results – Limiting Surface Alterations

Substrate: Clay Brick		Pigment Color: "Crimson"			
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: "Driftwood"			
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: "Earhtone"			
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: "Ebony"			
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: "Frontier"			
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: "Grey Granite"			
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: "Greystone"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Vana Trol®	1:6	0	0	0	0
Sure Klean® Vana Trol®	1:8	0	0	0	0
Enviro Klean® Safety Klean	1:2	0	0	0	0
Enviro Klean® Safety Klean	1:3	0	0	0	0

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

Test Results – Limiting Surface Alterations

Substrate: Clay Brick		Pigment Color: "Kansa Gold"			
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: "Light Autumn"			
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: "Light Ivory"			
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: "Old Heritage"			
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: "Old Homestead"			
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: "Old Mission"			
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: "Old Rose"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean [®] 600 Detergent	1:6	0	0	0	0
Sure Klean [®] 600 Detergent	1:8	0	0	0	0
Enviro Klean [®] Safety Klean	1:2	0	0	0	0
Enviro Klean [®] Safety Klean	1:3	0	0	0	0

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

Test Results – Limiting Surface Alterations

Substrate: Clay Brick		Pigment Color: "Old Smoky"			
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: "Pawnee 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
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: "Sahara Light Buff"			
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: "Terracotta"			
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

“Terracotta” Clay Brick; 3 Day Cleaning



“Terracotta” Clay Brick; 7 Day Cleaning



“Terracotta” Clay Brick; 14 Day Cleaning



Photographs – New Construction Cleaning

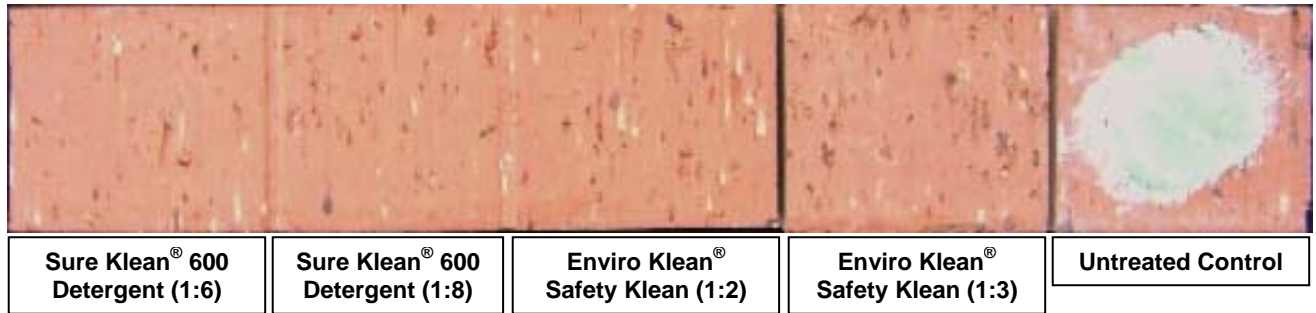
“Old Rose” Clay Brick; 3 Day Cleaning



“Old Rose” Clay Brick; 7 Day Cleaning



“Old Rose” Clay Brick; 14 Day Cleaning



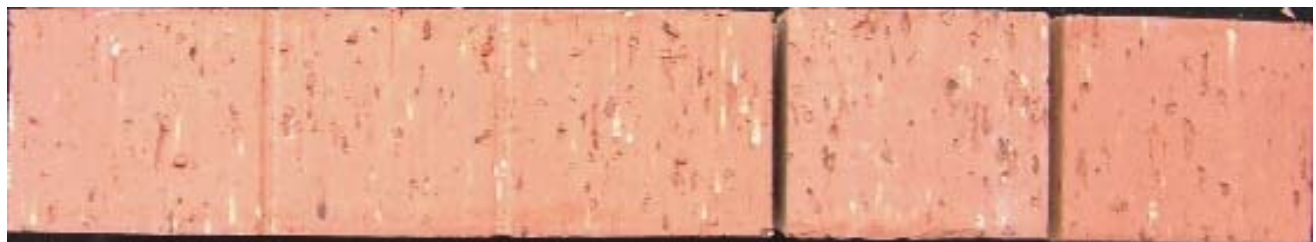
Photographs – Limiting Surface Alterations

“Terracotta” Clay Brick; Limiting Surface Alterations



Sure Klean® Vana Trol® (1:6)	Sure Klean® Vana Trol® (1:8)	Enviro Klean® Safety Klean (1:2)	Enviro Klean® Safety Klean (1:3)	Untreated Control
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“Old Rose” Clay Brick; Limiting Surface Alterations



Sure Klean® 600 Detergent (1:6)	Sure Klean® 600 Detergent (1:8)	Enviro Klean® Safety Klean (1:2)	Enviro Klean® Safety Klean (1:3)	Untreated Control
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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 14 days. In addition, test results indicate that the evaluated cleaners caused no noticeable surface alterations to any of the submitted 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 3 days of construction.

Recommendations – New Construction Cleaning

Recommendations for cleaning for each type of clay brick submitted by Cloud Ceramics, Concordia, KS are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations.

Sample		New Construction Cleaning (Type S mortar, 14 day cleaning)
"508L" "Black Diamond" "Bronze" "Brown Iron Tone" "Brown Tweed" "Cameo" "Cherokee" "Cimarron" "Cocoa Brown" "Coffee" "Coral" "Coral Sand" "Coronado" "Crimson" "Driftwood"	"Earthtone" "Ebony" "Frontier" "Grey Granite" "Greystone" "Kansa Gold" "Light Autumn" "Light Ivory" "Old Heritage" "Old Homestead" "Old Mission" "Old Smoky" "Pawnee Sand" "Sahara Light Buff" "Terracotta"	Sure Klean® Vana Trol® (1:8) OR Enviro Klean® Safety Klean (1:3)
"Burgundy" "Old Rose"		Sure Klean® 600 Detergent (1:8) OR Enviro Klean® Safety Klean (1:3)

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

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 and allowed to dry for at least 24 hours prior to treatment. All treatments were applied by brush in accordance with the current PROSOCO, Inc. Product Data Sheets and were allowed to cure for at least 72 hours 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 vertical 5.0-milliliter head pressures. Filled to 5.0 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 less than or equal to:

$$5.0 \text{ mL} \times 20\% = \mathbf{1.0 \text{ mL}}$$

A rating of **A** *Average* water repellent performance would require loss of less than or equal to:

$$5.0 \text{ mL} \times 50\% = \mathbf{2.5 \text{ mL}}$$

A rating of **BA** *Below Average* water repellent performance would require loss of more than:

$$5.0 \text{ mL} \times 50\% = \mathbf{2.5 \text{ mL}}$$

Test Results – Protective Water Repellents**Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes**

AA = Above Average

A = Average

BA = Below Average

“508L”	Results in mL loss	Ranking
Untreated Control	-0.4	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Black Diamond”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Bronze”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Brown Iron Tone”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Brown Tweed”	Results in mL loss	Ranking
Untreated Control	-1.0	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Burgundy”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Cameo”	Results in mL loss	Ranking
Untreated Control	-0.6	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Cherokee”	Results in mL loss	Ranking
Untreated Control	-0.8	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Cimarron”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>

Test Results – Protective Water Repellents**Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes**

AA = Above Average

A = Average

BA = Below Average

“Cocoa Brown”	Results in mL loss	Ranking
Untreated Control	-0.3	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Coffee”	Results in mL loss	Ranking
Untreated Control	-0.6	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Coral”	Results in mL loss	Ranking
Untreated Control	-0.7	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Coral Sand”	Results in mL loss	Ranking
Untreated Control	-1.5	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Coronado”	Results in mL loss	Ranking
Untreated Control	-0.5	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Crimson”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Driftwood”	Results in mL loss	Ranking
Untreated Control	-1.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Earhtone”	Results in mL loss	Ranking
Untreated Control	-3.0	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Ebony”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>

Test Results – Protective Water Repellents**Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes**

AA = Above Average

A = Average

BA = Below Average

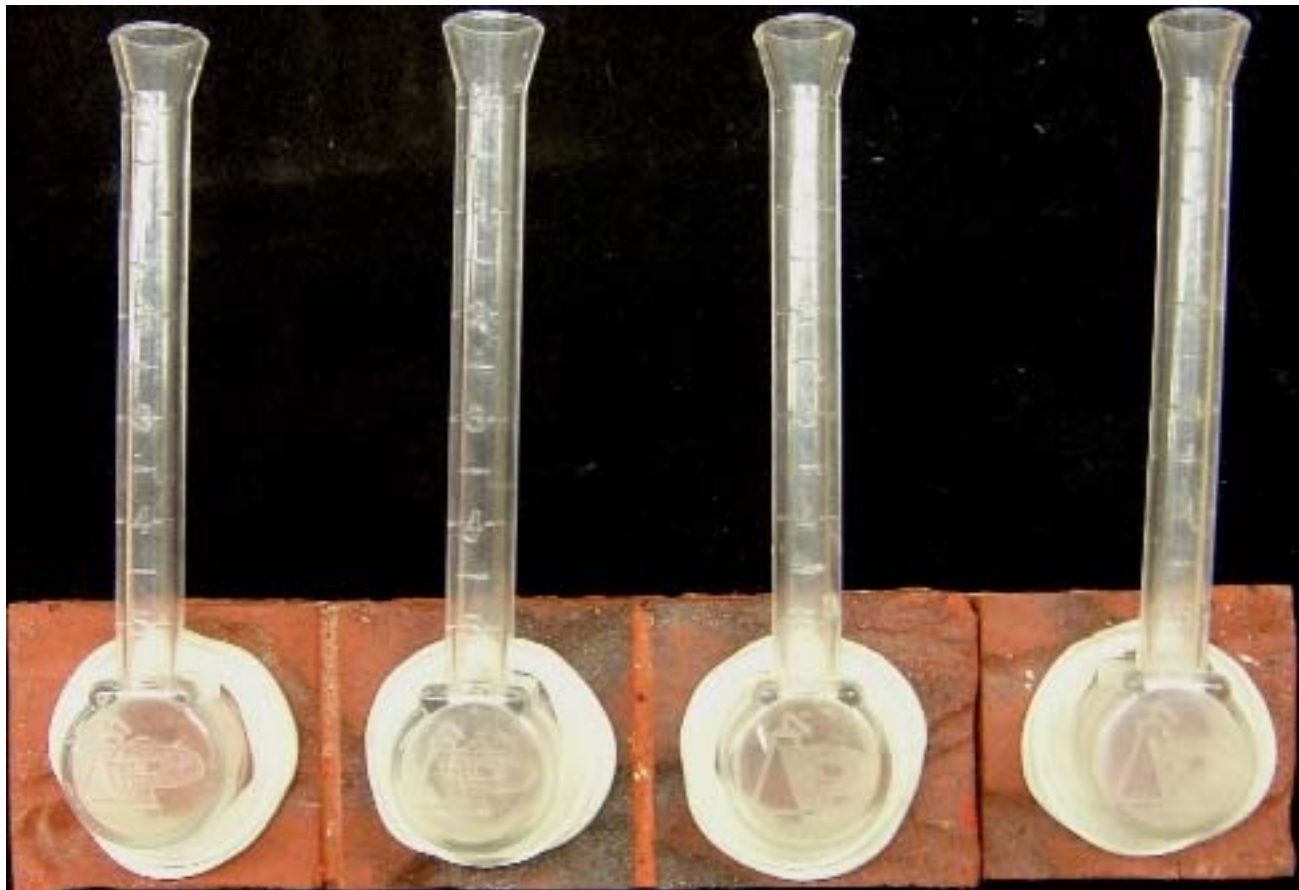
“Frontier”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	-0.0	<u>AA</u>
Sure Klean® Weather Seal Siloxane PD	-0.0	<u>AA</u>
“Grey Granite”	Results in mL loss	Ranking
Untreated Control	-0.9	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Greystone”	Results in mL loss	Ranking
Untreated Control	-2.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Kansa Gold”	Results in mL loss	Ranking
Untreated Control	-0.2	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Light Autumn”	Results in mL loss	Ranking
Untreated Control	-0.3	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Light Ivory”	Results in mL loss	Ranking
Untreated Control	-0.4	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Old Heritage”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Old Homestead”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Old Mission”	Results in mL loss	Ranking
Untreated Control	-0.3	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>

Test Results – Protective Water Repellents**Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes****AA = Above Average****A = Average****BA = Below Average**

“Old Rose”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Old Smoky”	Results in mL loss	Ranking
Untreated Control	-0.2	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Pawnee Sand”	Results in mL loss	Ranking
Untreated Control	-0.7	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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 Light Buff”	Results in mL loss	Ranking
Untreated Control	-1.7	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>
“Terracotta”	Results in mL loss	Ranking
Untreated Control	-0.1	--
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	-0.0	<u>AA</u>
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>

Photographs – Protective Water Repellents

“Old Smoky” Clay Brick ; Vertical RILEM II.4, 5.0 milliliters, 20 minutes



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

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

Untreated Control

**Sure Klean® Weather
Seal Siloxane PD**

Conclusions – Protective Water Repellents

Test results indicate that all of the treatments evaluated exhibited above average water repellency on all of the submitted clay brick. In addition, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II exhibited a slight color enhancement to the appearance of the brick. Sure Klean® Weather Seal Siloxane PD did not alter the appearance of any of the brick in any way.

Recommendations – Protective Water Repellents

Recommendations for water repellent treatments for each type of clay brick submitted by Cloud Ceramics, Concordia, KS 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	Protective Water Repellents
All Submitted Clay Brick	*Sure Klean® Weather Seal Blok-Guard® & Graffiti Control OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II OR Sure Klean® Weather Seal Siloxane PD

***NOTE:** Sure Klean® Weather Seal Blok-Guard® & Graffiti Control is manufactured and marketed in compliance with USEPA AIM VOC regulations (40 CFR 59.403). This product may not be suitable for sale in states and districts with more restrictive AIM VOC regulations.

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

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

Description of Products Evaluated – Graffiti Control

Graffiti Control Treatments

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

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 (Black)
Permanent Marker (Green)
Permanent Marker (Red)

Sample Preparation – Graffiti Control

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

Spray paint and markers were applied as graffiti agents to all treated surfaces no sooner than one day following application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control and 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:
 - Fast Acting Stripper20 minutes
 - Graffiti Wipe5 minutes
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.

Test Results – Graffiti Control

“508L”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	95%	10%	80%	66%
Graffiti Wipe	95%	10%	70%	70%	61%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	98%	98%	98%	98%
Graffiti Wipe	99%	98%	98%	98%	98%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	98%	90%	90%	94%
Graffiti Wipe	99%	90%	90%	90%	92%
“Black Diamond”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	100%	90%	90%	93%
Graffiti Wipe	80%	100%	90%	90%	90%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	95%	100%	100%	100%	99%
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	95%	100%	100%	100%	99%
“Bronze”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	90%	80%	95%	95%	90%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Brown Iron Tone”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	65%	90%	100%	95%	88%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	100%	100%	100%
Graffiti Wipe	99%	100%	100%	100%	100%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	100%	100%	100%
Graffiti Wipe	99%	100%	100%	100%	100%
“Brown Tweed”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	95%	98%	97%
Graffiti Wipe	90%	80%	95%	95%	90%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	99%	100%	99%
Graffiti Wipe	99%	100%	99%	99%	99%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	99%	98%	99%
Graffiti Wipe	100%	100%	99%	98%	99%

Test Results – Graffiti Control

“Burgundy”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	98%	99%	100%	99%
Graffiti Wipe	95%	80%	99%	100%	94%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Cameo”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	99%	60%	99%	89%
Graffiti Wipe	95%	20%	60%	95%	68%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	98%	100%	99%
Graffiti Wipe	99%	100%	98%	100%	99%
“Cherokee”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	98%	98%	98%
Graffiti Wipe	90%	80%	98%	98%	92%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	99%	100%	99%
Graffiti Wipe	98%	100%	99%	100%	99%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	99%	100%	100%
Graffiti Wipe	100%	100%	99%	100%	100%
“Cimarron”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	100%	90%	95%	94%
Graffiti Wipe	95%	60%	90%	95%	85%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Cocoa Brown”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	80%	95%	93%
Graffiti Wipe	95%	20%	80%	90%	71%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	99%	100%	100%
Graffiti Wipe	100%	100%	99%	100%	100%

Test Results – Graffiti Control

“Coffee”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	100%	100%	100%
Graffiti Wipe	95%	100%	100%	100%	99%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Coral”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	40%	95%	83%
Graffiti Wipe	98%	20%	60%	90%	67%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	99%	99%	100%
Graffiti Wipe	100%	95%	99%	99%	98%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	95%	99%	99%
Graffiti Wipe	100%	95%	95%	98%	97%
“Coral Sand”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	95%	60%	95%	84%
Graffiti Wipe	80%	10%	60%	90%	60%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	98%	99%	100%	99%
Graffiti Wipe	98%	100%	99%	100%	99%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	98%	98%	100%	99%
Graffiti Wipe	98%	98%	98%	100%	99%
“Coronado”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	98%	20%	95%	76%
Graffiti Wipe	95%	60%	60%	95%	78%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	98%	99%	99%
Graffiti Wipe	99%	100%	98%	99%	99%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	90%	99%	97%
Graffiti Wipe	99%	95%	90%	95%	95%
“Crimson”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	100%	100%	100%	98%
Graffiti Wipe	95%	100%	100%	100%	99%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%

Test Results – Graffiti Control

“Driftwood”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	99%	80%	95%	93%
Graffiti Wipe	80%	60%	80%	95%	79%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	99%	99%	99%
Graffiti Wipe	99%	100%	99%	99%	99%
“Earhtone”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	90%	60%	80%	73%
Graffiti Wipe	90%	50%	60%	80%	70%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	95%	99%	98%	97%
Graffiti Wipe	95%	90%	98%	98%	95%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	95%	80%	90%	90%
Graffiti Wipe	99%	90%	80%	90%	90%
“Ebony”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	60%	100%	100%	90%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Frontier”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	80%	100%	100%	95%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Grey Granite”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	70%	95%	91%
Graffiti Wipe	99%	60%	70%	90%	80%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	98%	98%	99%
Graffiti Wipe	100%	100%	98%	98%	99%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	98%	98%	99%
Graffiti Wipe	100%	100%	98%	98%	99%

Test Results – Graffiti Control

“Greystone”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	60%	95%	88%
Graffiti Wipe	99%	60%	60%	90%	77%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	95%	95%	98%
Graffiti Wipe	100%	95%	95%	95%	96%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	90%	95%	96%
Graffiti Wipe	100%	95%	90%	95%	95%
“Kansa Gold”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	95%	90%	95%	94%
Graffiti Wipe	95%	50%	90%	95%	83%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	98%	98%	100%	99%
Graffiti Wipe	100%	98%	98%	100%	99%
“Light Autumn”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	99%	60%	95%	88%
Graffiti Wipe	98%	70%	70%	90%	82%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	95%	100%	99%
Graffiti Wipe	100%	100%	95%	95%	98%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	95%	95%	98%
Graffiti Wipe	100%	98%	95%	95%	97%
“Light Ivory”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	99%	50%	95%	84%
Graffiti Wipe	80%	60%	60%	60%	65%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	99%	100%	100%
Graffiti Wipe	99%	100%	99%	100%	100%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	99%	90%	98%	96%
Graffiti Wipe	98%	98%	95%	98%	97%
“Old Heritage”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	100%	100%	100%	99%
Graffiti Wipe	95%	90%	100%	100%	96%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%

Test Results – Graffiti Control

“Old Homestead”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	80%	100%	95%
Graffiti Wipe	99%	60%	80%	80%	80%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Old Mission”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	95%	60%	95%	86%
Graffiti Wipe	95%	70%	60%	90%	79%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	95%	95%	97%
Graffiti Wipe	98%	100%	95%	95%	97%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	99%	95%	95%	97%
Graffiti Wipe	98%	95%	95%	95%	96%
“Old Rose”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	99%	80%	95%	93%
Graffiti Wipe	85%	70%	80%	95%	83%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Old Smoky”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	95%	95%	100%	100%	98%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%
“Pawnee Sand”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	100%	100%	100%
Graffiti Wipe	95%	95%	100%	100%	98%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
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%

Test Results – Graffiti Control

“Sahara Light Buff”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	98%	50%	98%	84%
Graffiti Wipe	80%	50%	60%	95%	71%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	99%	99%	99%
Graffiti Wipe	99%	100%	99%	99%	99%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	90%	98%	97%
Graffiti Wipe	99%	99%	90%	95%	96%
“Terracotta”					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	95%	90%	98%	95%
Graffiti Wipe	98%	70%	90%	95%	88%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	100%	100%	100%	100%	100%
Graffiti Wipe	100%	100%	100%	100%	100%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	100%	99%	99%	99%
Graffiti Wipe	99%	100%	99%	99%	99%

Photographs – Graffiti Control

“Light Ivory”; Graffiti Applied



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

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

Untreated Control

“Light Ivory”; Graffiti Removed



Sure Klean[®] Fast Acting Stripper

Defacer Eraser[®] Graffiti Wipe

Sure Klean[®] Fast Acting Stripper

Defacer Eraser[®] Graffiti Wipe

Sure Klean[®] Fast Acting Stripper

Defacer Eraser[®] Graffiti Wipe

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

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

Untreated Control

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 and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II prior to graffiti application. In addition, both Sure Klean® Weather Seal Blok-Guard® & Graffiti Control and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II exhibited a slight color enhancement to the appearance of the submitted clay brick.

Recommendations – Graffiti Control

Recommendations for graffiti control treatment for each type of clay brick submitted by Cloud Ceramics, Concordia, KS 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 OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	Sure Klean® Fast Acting Stripper OR Defacer Eraser® Graffiti Wipe

***NOTE:** Sure Klean® Weather Seal Blok-Guard® & Graffiti Control is manufactured and marketed in compliance with USEPA AIM VOC regulations (40 CFR 59.403). This product may not be suitable for sale in states and districts with more restrictive AIM VOC regulations.

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.

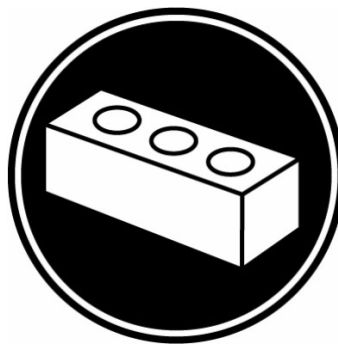


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 CAM



PALLET TAG PROGRAM
Laboratory Report

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Project No. 0606-14 PTP

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