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Attachments

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

Submitted Information

For: Scott Mathews, Midwest Cast Stone

Cc: Matt Henderson Steve Dean

Steve Dean Brian Koenings

Subject: Midwest Cast Stone

Kansas City, KS

Date: May 28, 2008

Project: 0804-02 PTP

Samples Submitted: 3 types of cast stone

Sample	Туре	Color Description		Size
"MWCS 1A"	Cast Stone	"1A Limestone" Dry-cast		8" x 8" x 4"
"MWCS 3AC"	Cast Stone	"3AC Buff"	Dry-cast	8" x 8" x 4"
"MWCS 38AC"	Cast Stone	"38AC Brown"	Dry-cast	8" x 8" x 4"

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

Three types of cast stone were submitted to AMT Laboratories by PROSOCO, Inc. with a request to determine if application of the products evaluated will produce any surface alterations during new construction cleaning operations. Additionally, the effectiveness of water repellents and graffiti control products suitable for cast stone was evaluated.

New Construction Cleaning – Sure Klean® Vana Trol® and Sure Klean® Light Duty Concrete Cleaner were tested at various dilutions to determine the optimum cleaner/cure time combination for complete removal of laboratory applied Type N mortar from the submitted cast stone while limiting surface alterations. The surface alteration evaluation was visually determined based upon perceived discoloration or erosion/etching of the samples.

To simulate new construction soiling, the 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 the samples and filled with a wet mixture of Type N cementitious mortar. The wet mortar-filled cylinder was allowed to remain in contact with the samples for 10 minutes before removal.

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

<u>Surface Finish Removal</u> is the visual examination of the sample 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 sample 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 sample.

<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.

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, Sure Klean[®] Weather Seal Siloxane PD, and Sure Klean[®] Weather Seal Siloxane WB Concentrate were evaluated for their ability to provide water repellency to the submitted cast stone.

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 control graffiti on the submitted cast stone. Sure Klean[®] Fast Acting Stripper and Defacer Eraser[®] Graffiti Wipe were evaluated for their ability to remove graffiti from the submitted cast stone.

Products Evaluated

New Construction Cleaning Products Evaluated

Sample	Product	Dilution
All Submitted Cast Stone	Sure Klean [®] Vana Trol [®]	
All Submitted Cast Stone	Sure Klean [®] Light Duty Concrete Cleaner	1:2, 1:3

Protective Water Repellent Products Evaluated

Sample	Product	Dilution
	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Concentrate
All Submitted Cast Stone	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	Concentrate
All Submitted Cast Stone	Sure Klean [®] Weather Seal Siloxane PD	Concentrate
	Sure Klean® Weather Seal Siloxane WB Concentrate	1:9

Graffiti Control Products Evaluated

Sample	Product	Dilution
All Submitted Cast Stone	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control	Concentrate
All Submitted Cast Stone	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control II	Concentrate

Graffiti Removal Products Evaluated

Sample	Product	Dilution
All Submitted Cast Stone	Sure Klean [®] Fast Acting Stripper	Concentrate
All Submitted Cast Stone	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 cast stone while limiting surface alterations to the cast stone surface.

Description of Products Evaluated – 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.

Sure Klean® Light Duty Concrete Cleaner – Removes common construction and atmospheric staining from smooth architectural and engineered concrete. This general-purpose, non-etching, acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Light Duty Concrete Cleaner adds depth to colors and brightens white matrices and exposed aggregate.

Sample Preparation - New Construction Cleaning

Type N mortar was prepared in compliance with the manufacturer's instructions, applied to the samples and allowed to cure. 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 the cast stone to determine if the products tested caused any change to the surface of the cast stone.

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:

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 N Mortar Removal)

"MWCS 1A"								
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%				
Sure Klean [®] Light Duty Concrete Cleaner	1:2	100%	100%	100%				
Sure Klean [®] Light Duty Concrete Cleaner	1:3	100%	100%	100%				
	"MWCS 3AC	C "						
Product	Dilution	7 day	14 day	21 day				
Sure Klean [®] Vana Trol [®]	1:6	100%	90%	100%				
Sure Klean [®] Vana Trol [®]	1:8	100%	90%	100%				
Sure Klean [®] Light Duty Concrete Cleaner	1:2	100%	100%	90%				
Sure Klean [®] Light Duty Concrete Cleaner	1:3	100%	100%	90%				
	"MWCS 38A	C"						
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%				
Sure Klean [®] Light Duty Concrete Cleaner	1:2	100%	100%	100%				
Sure Klean [®] Light Duty Concrete Cleaner	1:3	100%	100%	100%				

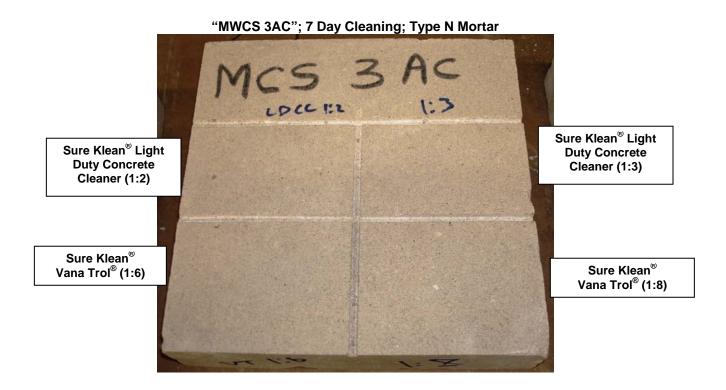
Test Results – Limiting Surface Alterations

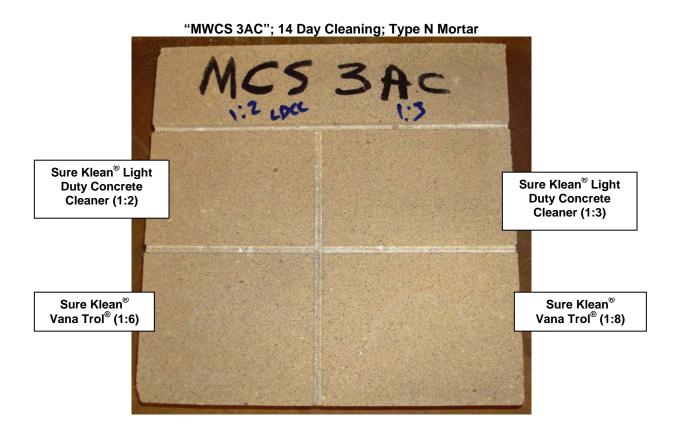
Substrate: "MWCS 1A"						
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining	
Sure Klean [®] Vana Trol [®]	1:6	0	0	0	0	
Sure Klean [®] Vana Trol [®]	1:8	0	0	0	0	
Sure Klean [®] Light Duty Concrete Cleaner	1:2	0	0	0	0	
Sure Klean [®] Light Duty Concrete Cleaner	1:3	0	0	0	0	
Substrate: "MWCS 3AC"						
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	
Sure Klean [®] Light Duty Concrete Cleaner	1:2	0	0	0	0	
Sure Klean [®] Light Duty Concrete Cleaner	1:3	0	0	0	0	
Substrate: "MWCS 38AC"						
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	
Sure Klean [®] Light Duty Concrete Cleaner	1:2	0	0	0	0	
Sure Klean [®] Light Duty Concrete Cleaner	1:3	0	0	0	0	

0 - No Change 3 - Change - Heavy 1 - Change - Slight 4 - Change - Excessive

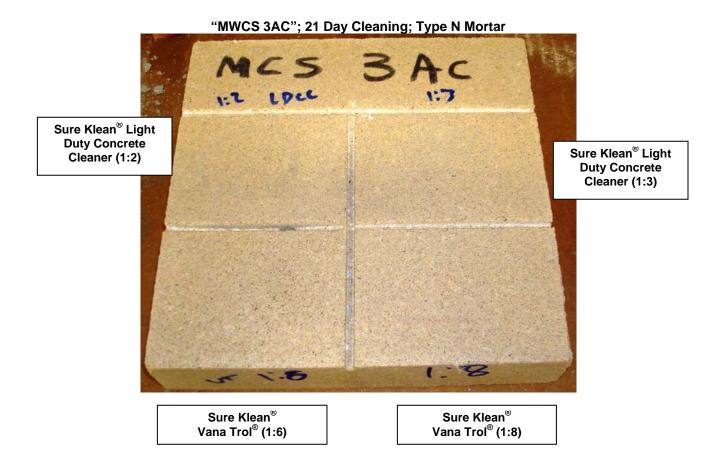
2 - Change - Moderate

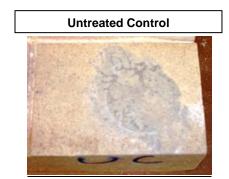
Photographs - New Construction Cleaning





Photographs – New Construction Cleaning





Conclusions - New Construction Cleaning

Based on the test results, both Sure Klean[®] Vana Trol[®] and Sure Klean[®] Light Duty Concrete Cleaner performed well in removing excess mortar from the submitted cast stone. Both cleaners performed well in removing the mortar soils even after allowing the mortar to remain on the surface of the samples for 21 days under ideal curing conditions. Neither product caused any surface alterations to the submitted cast stone.

It is recommended that the selected cleaners always be used in the lowest possible concentration.

Recommendations – New Construction Cleaning

Recommendations for cleaning for the cast stone submitted by Midwest Cast Stone, Kansas City, KS are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of Type N mortar while limiting surface alterations.

Sample	New Construction Cleaning (Type N Mortar, 21 Day Cleaning)
All Submitted Cast Stone	Sure Klean [®] Vana Trol [®] (1:8) or Sure Klean [®] Light Duty Concrete Cleaner (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.

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.

Sure Klean® Weather Seal Siloxane WB Concentrate – A self-emulsifying water repellent concentrate designed for dilution with fresh water at the job site. This solvent-free blend of silanes and oligomeric alkoxysiloxanes mixes easily with water to produce a penetrating water repellent ideal for application to dense or porous masonry surfaces.

<u>Sample Preparation</u> – Protective Water Repellents

The submitted samples were scored 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 Sheet application instructions. All treatments were allowed to cure for at least 72 hours prior to testing.

Test Methods - Protective Water Repellents

Water Absorption Tube Test: Horizontal 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 103 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 5.0 mL of water or more, then:

A rating of <u>AA</u> Above Average water repellent performance would be reported for treatments which result in a loss of no more than:

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

A rating of <u>A</u> Average water repellent performance would be reported for treatments which result in a loss of no more than:

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

A rating of **BA** *Below Average* water repellent performance would be reported for treatments which result in a loss of more than:

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

<u>Test Results</u> – Protective Water Repellents

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

<u>AA</u> = Above Average

 $\underline{\mathbf{A}}$ = Average

BA = Below Average

"MWCS 1A"	Results in mL loss	Ranking
Untreated Control	-2.0	
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>
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	<u>AA</u>
"MWCS 3AC"	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>
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	<u>AA</u>
"MWCS 38AC"	Results in mL loss	Ranking
Untreated Control	-2.0	
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>
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	<u>AA</u>

Photographs – Protective Water Repellents

"MWCS 1A," Horizontal RILEM II.4, 5.0 milliliters, 20 minutes



Sure Klean[®]
Weather Seal
Siloxane WB
Concentrate (1:9)

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

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

Sure Klean®

Weather Seal

Siloxane PD



Untreated Control

Conclusions – Protective Water Repellents

In the RILEM tests conducted, results indicate that each of the treatments evaluated improved water repellency to each type of submitted cast stone. None of the treatments tested altered the appearance of any of the submitted samples.

Recommendations - Protective Water Repellents

Recommendations for water repellent treatments for the cast stone submitted by Midwest Cast Stone, Kansas City, KS are provided in the chart below. Recommendations are based on the treatments that proved most effective at providing water repellency on the submitted samples.

Sample	Protective Water Repellents
All Submitted Samples	*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 or Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9)

*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.

The ability of a water repellent treatment to prevent the ingress of water is affected by a variety of 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.

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 cast stone 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 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.

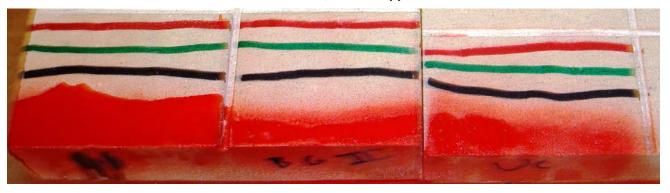
*Pressure Rinsing Equipment – Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45 degree fan spray tip was used for rinsing.

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

"MWCS 1A"					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	100%	98%	90%	87%
Graffiti Wipe	70%	90%	90%	90%	85%
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	100%	98%	99%	94%
Graffiti Wipe	99%	99%	99%	100%	99%
Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	100%	100%	100%	93%
Graffiti Wipe	60%	100%	99%	99%	90%
		"MWCS 3AC"			
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	60%	80%	40%	63%
Graffiti Wipe	70%	60%	95%	40%	66%
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	80%	95%	90%	89%
Graffiti Wipe	85%	70%	99%	80%	84%
Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	70%	95%	80%	81%
Graffiti Wipe	70%	60%	99%	80%	77%
		"MWCS 38AC"			
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	70%	90%	70%	80%
Graffiti Wipe	80%	60%	85%	60%	71%
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	90%	99%	100%	96%
Graffiti Wipe	95%	90%	99%	99%	96%
Blok-Guard [®] & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	80%	99%	100%	92%
Graffiti Wipe	80%	70%	95%	90%	84%

<u>Photographs</u> – Graffiti Control

"MWCS 3AC"; Graffiti Applied

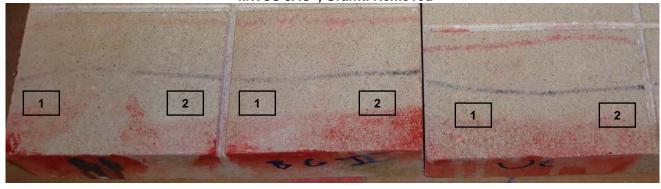


Sure Klean[®]
Weather Seal
Blok-Guard[®] & Graffiti Control

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

Untreated Control





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

Untreated Control

KEY
1 – Fast Acting Stripper
2 – Graffiti Wipe

Conclusions – Graffiti Control

Based upon laboratory evaluations, both treatments evaluated improved graffiti removal on the submitted samples. Neither product altered the appearance of the submitted cast stone.

Recommendations - Graffiti Control

Recommendations for graffiti control treatment for the cast stone submitted by Midwest Cast Stone, Kansas City, 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 the cast stone submitted.

Sample	Graffiti Repellents	Graffiti Removers
All Submitted Cast Stone	*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.

Courtney Murdock Project Testing Director

outer of. Mudock



Midwest Cast Stone 1610 State Ave. Kansas City, KS 66102



Project No. 0804-02 PTP

Prepared For: PROSOCO SINCE 1939

Prepared By:
AMT Laboratories
May 2008