

PROSOCO, Inc.

TABLE OF CONTENTS

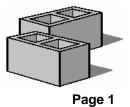
Submitted Information	1
Purpose of Testing	2
Products Evaluated	
New Construction Cleaning	
Description of Products Evaluated – New Construction Cleaning	
Test Method – New Construction Cleaning	
Test Results – New Construction Cleaning	
Test Results – Color Uniformity	
Photographs – New Construction Cleaning	
Photographs – Color Uniformity	
Conclusions – New Construction Cleaning	
Recommendations – New Construction Cleaning	9
Protective Water Repellents	
Description of Products Evaluated – Protective Water Repellents	
Sample Preparation – Protective Water Repellents	
Test Methods – Protective Water Repellents	
Test Results – Protective Water Repellents	
Photographs – Protective Water Repellents	
Conclusions – Protective Water Repellents	
Recommendations – Protective Water Repellents	
Graffiti Control	
Description of Products Evaluated – Graffiti Control	
Sample Preparation – Graffiti Control	
Test Method – Graffiti Control	
Test Results – Graffiti Control	
Photographs – Graffiti Control	
Conclusions – Graffiti Control	
Recommendations – Graffiti Control	

ATTACHMENTS

Technical Services TECH Note RILEM Tube Test Procedures

Product Data literature for all products evaluated





Submitted Information

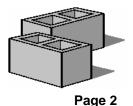
For: cc:	Gary Schripsema Brian Koenings John Bourne Steve Dean
Subject:	Consumers Concrete Corporation Kalamazoo, MI
Date:	May 5, 2005
Project:	0503-02 PTP

Samples Submitted: 4 types of "Bella Brik" CMU's

Block Type	Name	Color	Integral Water Repellent	Size
"Bella Brik" CMU	"Coronado"	Dark Red/Black	Unknown	
"Bella Brik" CMU	"Marquette"	Dark Brown	Unknown	15 ½" x 4" x 8"
"Bella Brik" CMU	"Milwaukee"	Red/Black	Unknown	13 /2 X 4 X 0
"Bella Brik" CMU	"Tan/Red Flash"	Tan/Red	Unknown	

Submitted by: Gary Schripsema





Purpose of Testing

Four integrally colored "Bella Brik" CMU's, all with large, small and fine aggregate were submitted for testing using PROSOCO's new construction cleaning, water repellent and graffiti control products.

New Construction Cleaning – Sure Klean[®] Custom Masonry Cleaner and Sure Klean[®] Concrete Brick Cleaner were evaluated for removal of laboratory applied mortar and to determine the optimal concentration of cleaner that leaves the external surface looking most like the natural through-body color of the CMU.

To simulate new construction soiling, all concrete masonry units (CMU's) are placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall are positioned on top of each CMU and filled with a wet mixture of Type S mortar. The wet, mortar-filled cylinder is allowed to remain in contact with the CMU for 10 minutes before removal.

Heavy deposits of mortar are removed with dry scraping after 24 hours. Prepared cleaning solutions are then evaluated for their effectiveness in removing residual Type S mortar staining after 3 days, 7 days, and 14 days of curing.

Color uniformity was evaluated by comparing aggregate exposure and surface pigment alternation/removal of each cleaned surface compared to the natural through-body color of the CMU.

Aggregate Exposure is the visual examination comparing aggregate exposure of the interior, through-body section of CMU to surfaces cleaned with selected product(s) at given dilutions.

Surface Pigment Alteration/Removal is the visual examination comparing the pigmentation of the interior, through-body section of the CMU to surfaces cleaned with selected product(s) at given dilutions.

The following is the scale used for reporting results of both categories:

- 0 Worst match to through-body
- 1 **Poor** match to through-body
- 2 **Fair** match to through-body
- 3 **Good** match to through-body 4 – **Best** match to through-body

NOTE: When cleaning integrally colored CMU.

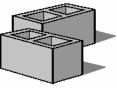
Integrally colored concrete masonry units (CMU's) frequently have high amounts of pigments concentrated on the surface of the cured concrete unit. Variation of surface pigment concentrations from one CMU to the next creates a blotchy appearance in the completed wall. Allowed to remain on the surface of the CMU, the weakly bound pigment will weather and streak, further detracting from the appearance of the completed CMU wall.

In addition to removing excess mortar and construction related soiling, the goal of any cleaning operation undertaken on an integrally colored CMU should include removal of unnaturally high concentrations of surface pigment. By revealing the natural through-body color on the integrally colored unit, the overall color uniformity and weathering resistance of the completed CMU wall is improved.

Protective Water Repellents – Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control was evaluated for its ability to provide water repellency to the submitted samples.

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





Page 3

Products Evaluated

Products Evaluated for Cleaning and Color Uniformity

Block Type	Product	Dilution
	Sure Klean [®] Custom Masonry Cleaner	1:6
All Submitted CMU's	Sure Klean [®] Concrete Brick Cleaner	1:2, 1:3

Water Repellent Products Evaluated

Block Type	Product	Dilution
All Submitted CMU's	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control	Concentrate

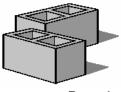
Graffiti Control Products Evaluated

Block Type	Product	Dilution
All Submitted CMU's	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control	Concentrate

Graffiti Removal Products Evaluated

Block Type	Product	Dilution
All Submitted CMU's	Sure Klean [®] Fast Acting Stripper	Concentrate
All Submitted GMO 3	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 S mortar from the submitted CMU's while providing the best color uniformity when compared to the through-body color of the CMU's

Type S mortar was prepared in compliance with the manufacturers instructions, applied to the CMU 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 the optimal dilution of the tested cleaners that provide the best color uniformity when compared to the throughbody color of the CMU's.

Description of Products Evaluated – New Construction Cleaning

Sure Klean[®] **Custom Masonry Cleaner** – A general purpose, concentrated acidic cleaner for most custom masonry and colored concrete. Removes concrete splashes, excess mortar, mud, heavy efflorescence and surface soiling, leaving the masonry clean and uniform with no acid burning or streaking. Liquid concentrate for dilution with 2-6 parts water. Apply by brush or low-pressure spray.

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

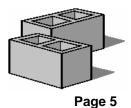
Test Method – New Construction Cleaning

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

- 1. Pre-wet the surface with water.
- 2. Apply at the appropriate dilutions.
- 4. Reapply the product and moderately agitate with a brush.
- 5. Pressure rinse thoroughly.*
- 6. Allow the sample to dry for at least 18 hours and visually examine.
- 7. Break the sample in half and compare the through-body surfaces to the cleaned surfaces for the best match.

*Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.



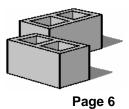


Test Results – New Construction Cleaning

<u>% removal</u>

"Coronado"				
Product	Dilution	3 day	7 day	14 day
Concrete Brick Cleaner	1:2	100%	95%	90%
Concrete Brick Cleaner	1:3	100%	95%	90%
Custom Masonry Cleaner	1:6	100%	100%	95%
"М	arquette"			
Product	Dilution	3 day	7 day	14 day
Concrete Brick Cleaner	1:2	100%	95%	95%
Concrete Brick Cleaner	1:3	100%	90%	90%
Custom Masonry Cleaner	1:6	100%	100%	99%
"М	ilwaukee"			
Product	Dilution	3 day	7 day	14 day
Concrete Brick Cleaner	1:2	98%	95%	90%
Concrete Brick Cleaner	1:3	95%	95%	90%
Custom Masonry Cleaner	1:6	99%	95%	95%
"Tan/Red Flash"				
Product	Dilution	3 day	7 day	14 day
Concrete Brick Cleaner	1:2	100%	100%	90%
Concrete Brick Cleaner	1:3	100%	95%	90%
Custom Masonry Cleaner	1:6	100%	100%	95%





Test Results – Color Uniformity

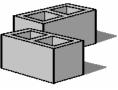
Substrate: "Bella Brik" CMU	Pigment C	olor: "Coronado"	
Substrate. Della DIR CIVIO	Fightenico		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Concrete Brick Cleaner	1:2	1	1
Concrete Brick Cleaner	1:3	1	1
Custom Masonry Cleaner	1:6	3	3
Substrate: "Bella Brik" CMU	Pigment C	olor: "Marquette"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Concrete Brick Cleaner	1:2	2	2
Concrete Brick Cleaner	1:3	1	1
Custom Masonry Cleaner	1:6	3	3
Substrate: "Bella Brik" CMU	Pigment Color: "Milwaukee"		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Concrete Brick Cleaner	1:2	1	1
Concrete Brick Cleaner	1:3	1	1
Custom Masonry Cleaner	1:6	3	3
Substrate: "Bella Brik" CMU	Pigment C	olor: "Tan/Red Flash"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Concrete Brick Cleaner	1:2	1	1
Concrete Brick Cleaner	1:3	1	1
Custom Masonry Cleaner	1:6	3	3

Scale used for reporting results of both categories

- 0 **Worst** match to through-body
- 3 Good match to through-body
- 1 **Poor** match to through-body
- 4 Best match to through-body

2 - Fair match to through-body



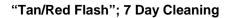


Page 7

Photographs – New Construction Cleaning

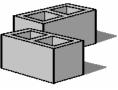
"Tan/Red Flash"; 3 Day Cleaning











Page 8

Photographs – New Construction Cleaning

"Tan/Red Flash"; 14 Day Cleaning

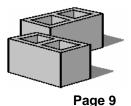


Photograph – Color Uniformity

 Sure Klean[®] Concrete Brick Cleaner 1:2
 Sure Klean[®] Concrete Brick Cleaner 1:3
 Sure Klean[®] Custom Masonry Cleaner 1:6
 Throughbody
 Untreated Control

"Tan/Red Flash"





Conclusions – New Construction Cleaning

Based on the test data, all of the submitted samples were efficiently cleaned with both Sure Klean[®] Concrete Brick Cleaner and Sure Klean[®] Custom Masonry Cleaner*. Higher concentrations of Sure Klean[®] Concrete Brick Cleaner removed slight to moderate concentrations of pigmented matrix, exposing small and large aggregate. Lower concentrations of Sure Klean[®] Concrete Brick Cleaner removed slight concentrations of pigmented matrix, exposing small and large aggregate.

*NOTE: Sure Klean[®] Custom Masonry Cleaner diluted with six parts water removed slightly more amounts of laboratory applied mortar than Sure Klean[®] Concrete Brick Cleaner. However, Sure Klean[®] Custom Masonry Cleaner removed a significant amount of surface pigment from the "Bella Brik" samples, exposing a significant amount of aggregate. Sure Klean[®] Concrete Brick Cleaner removed the least amount of surface pigment while still efficiently cleaning the samples. Therefore, if minimal aggregate exposure is desired, Sure Klean[®] Concrete Brick Cleaner is recommended.

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

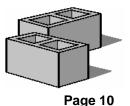
Recommendations for cleaning for each type of CMU submitted by Consumers Concrete Corporation, Kalamazoo, MI are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while providing sufficient color uniformity.

Sample	New Construction Cleaning (Type S mortar, 14 day cleaning)	
All Submitted CMU's	Sure Klean [®] Concrete Brick Cleaner (1:2) OR (1:3) OR *Sure Klean [®] Custom Masonry Cleaner (1:6) (See Note in Conclusions)	

The most appropriate cleaner and dilution should be determined on the specific job-site, and will be dependent primarily on the nature and severity of soiling present at that location. Pressure rinsing equipment providing at least 400 psi at 4-6 gpm delivered though a 15-40 degree fan spray often produces best cleaning 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 cleaning product and procedures for a particular project. See product literature for additional application and product information.





PROSOCO, Inc.

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.

Sample Preparation – Protective Water Repellents

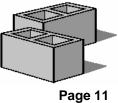
The submitted CMU's were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control was applied in a wet-on-wet brushing application and allowed to cure for at least 24 hours prior to testing.

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

Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes

The water absorption tube test simulating wind driven rain conditions was performed. This test simulates 60 mile per hour wind driven rain conditions for a period of 20 minutes. See Technical Services TECH Note RILEM Tube Test Procedures.





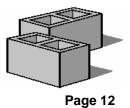
Test Results – Protective Water Repellents

Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes

RESULTS

	REGOLIS
"Coronado"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph
"Marquette"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph
"Milwaukee"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph
"Tan/Red Flash"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph





Photographs – Protective Water Repellents

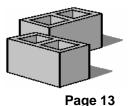
"Coronado"; RILEM Testing



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

Untreated Control





Conclusions – Protective Water Repellents

Based upon laboratory evaluations, Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control provided above average water repellency to each of the submitted samples. In addition, Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control provided slight color enhancement to the submitted samples.

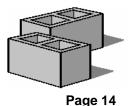
<u>Recommendations</u> – Protective Water Repellents

Recommendations for water repellency treatment for each type of CMU submitted by Consumers Concrete Corporation, Kalamazoo, MI are provided in the chart below. Recommendations are based on the treatment that proved most effective and can provide water repellency on all types submitted.

Sample	Protective Water Repellents
All Submitted CMU's	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control

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





Graffiti Control

These trials were conducted to determine the optimal graffiti control treatment for the submitted concrete block samples.

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.

Products Evaluated for Graffiti Removal

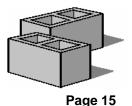
Defacer Eraser[®] Graffiti Wipe – An easy-to-use graffiti remover that does not contain methanol, methylene chloride or other halogenated solvents prohibited on many projects. Graffiti Wipe removes a variety of graffiti stains from most smooth masonry, split-face concrete block, wood and metal surfaces.

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

Graffiti Agents

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





Sample Preparation – Graffiti Control

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

Sections of the CMU's were treated with Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control, in accordance with PROSOCO, Inc.'s Product Guide application recommendations and then allowed to cure for at least 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. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using either Defacer Eraser[®] Graffiti Wipe or Sure Klean[®] Fast Acting Stripper.

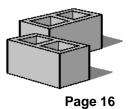
<u>Test Method</u> – Graffiti Control

Chemical cleaners were evaluated using the following procedure:

- 1. Apply the product to a dry surface, soiled with graffiti.
- 3. Pressure rinse thoroughly until water runs clear. *
- 4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

* Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.

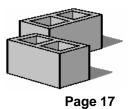




Test Results – Graffiti Control

"Coronado"					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	98%	60%	70%	80%
Graffiti Wipe	90%	80%	60%	70%	75%
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	100%	100%	100%
Graffiti Wipe	98%	100%	99%	100%	99%
"Marquette"					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	95%	80%	70%	83%
Graffiti Wipe	70%	80%	60%	70%	70%
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	100%	95%	98%	98%
Graffiti Wipe	98%	99%	95%	95%	97%
	"N	lilwaukee"			
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	98%	40%	90%	77%
Graffiti Wipe	80%	40%	40%	90%	63%
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	99%	95%	99%	98%
Graffiti Wipe	99%	98%	95%	99%	98%
	"Tar	n/Red Flash"			
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	95%	70%	80%	83%
Graffiti Wipe	80%	60%	40%	70%	63%
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	99%	98%	80%	90%	92%
Graffiti Wipe	99%	98%	80%	85%	91%



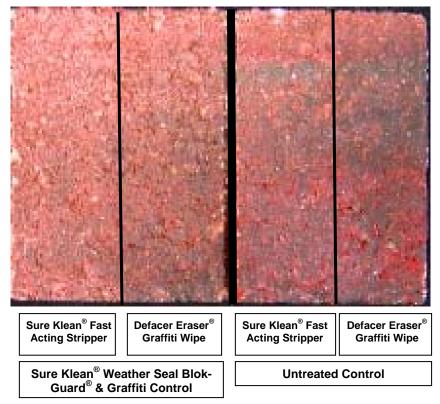


Photographs - Graffiti Control

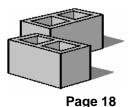
 Sure Klean[®] Weather Seal Blok-Cuard[®] & Graffiti Control
 Untreated Control

"Coronado"; Graffiti Applied









Conclusions – Graffiti Control

Based upon laboratory evaluations, graffiti removal was improved when the submitted samples were treated with Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control prior to graffiti application. In addition, Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control provided a slight color enhancement to the submitted samples.

Recommendations – Graffiti Control

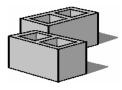
Recommendations for graffiti control treatment for each type of CMU submitted by Consumers Concrete Corporation, Kalamazoo, Mi, are provided in the chart below. Recommendations are based on the treatment that proved most effective for providing graffiti repellency and the product that was most effective at removing the graffiti on all types submitted.

Sample	Graffiti Repellents	Graffiti Removers		
All Submitted CMU's	Sure Klean [®] Weather Seal Blok- Guard [®] & Graffiti Control	Defacer Eraser [®] Graffiti Wipe OR Sure Klean [®] Fast Acting Stripper		

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.

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 product and procedures for a particular project. See product literature for additional application and product information.

Christopher A. Moore Project Testing Laboratory Technician CAM



Laboratory Report

