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ATTACHMENTS

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





- FOR: Eli Wildfong cc: Doug Barron Perry Surber John Bourne Stephen Dean
- SUBJECT: Van Poppelen Brothers Block Bay City, MI 48707

DATE: May 20, 2002

PROJECT: 0203-07 PTP

SAMPLES SUBMITTED: Four types of block in three colors.

<u>Block</u>	<u>Color</u>	<u>Size</u>
(4) Split-face CMUs	"Sunset"	16" x 8" x 4"
(4) Smooth-face CMUs	"Sunset"	16' x 8" x 4"
(4) Split-face CMUs	"Copperpot"	16" x 10" x 8"
(4) Split-face CMUs	"Autumn Blend"	16" x 8" x 8"

Submitted by: Doug Barron





PURPOSE OF TESTING:

Three integrally colored split-face concrete blocks and one integrally colored smooth-face concrete block with large, small and fine aggregate were submitted for testing using PROSOCO's new construction cleaning and water repellent products.

A. Cleaning Concrete Masonry Units: Sure Klean[®] Custom Masonry Cleaner was evaluated for removal of laboratory applied mortar.

To simulate new construction soiling, all CMUs 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 Ash Grove[®] 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 Ash Grove[®] Type S mortar staining after 3 days, 7 days, and 14 days of curing.

B. Color Uniformity Testing* - Sure Klean[®] Custom Masonry Cleaner was evaluated at various dilutions to determine the optimal concentration of cleaner that leaves the external surface looking most like the natural through-body color of the CMU. 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.

<u>Aggregate Exposure</u> 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.

<u>Surface Pigment Alteration/Removal*</u> 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 3 -**Good** match to through-body
- 1 **Poor** match to through-body 4 **Best** match to through-body
- 2 Fair match to through-body

* NOTE: When cleaning integrally colored CMU.

Integrally colored concrete masonry units (CMUs) 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 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.

C. Protective Water Repellents - Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control and Sure Klean[®] Weather Seal Siloxane WB Concentrate were evaluated for their ability to provide water repellency to the submitted samples.

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





PRODUCTS EVALUATED FOR CLEANING AND COLOR UNIFORMITY

Block Type	Product	Dilution
All submitted CMUs	Sure Klean [®] Custom Masonry Cleaner	1:2, 1:4, 1:6

WATER REPELLENT PRODUCTS EVALUATED

Block Type	Product	Dilution
All submitted CMUs	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control	Concentrate
	Sure Klean [®] Weather Seal Siloxane WB Concentrate	1:9, 1:14

GRAFFITI CONTROL PRODUCTS EVALUATED

Block Type	Product
	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control
All submitted CMUs	Defacer Eraser [®] Graffiti Barrier NS
	Defacer Eraser [®] Graffiti Barrier S

GRAFFITI REMOVAL PRODUCTS EVALUATED

Block Type	Product
	Sure Klean [®] Fast Acting Stripper
All submitted CMUs	Defacer Eraser [®] Graffiti Wipe
	Defacer Eraser [®] Graffiti Release





SECTION A – CLEANING INTEGRALLY COLORED CMUs

DESCRIPTION OF PRODUCTS EVALUATED

These cleaning trials were conducted to determine the optimal cleaning/cure time combination.

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.

TEST METHOD – Cleaning

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

Sure Klean[®] Custom Masonry Cleaner was evaluated at dilutions 1:2, 1:4, and 1:6. The following procedure was used:

- 1. Prewet the surface with water.
- 2. Apply each cleaner at the appropriate dilutions.
- 4. Reapply the products and moderately agitate with a brush.
- 5. Pressure rinse thoroughly.*
- 6. Allow the surface to dry for at least 18 hours and visually examine.

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





TEST RESULTS - Cleaning

<u>% removal</u>

	"Sunset" split-f	ace		
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
	"Sunset" smooth	-face		
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
	"Copperpot"	1		
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
	"Autumn Blen	d"		
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%





CONCLUSIONS - Cleaning

Based on the test data, all of the submitted block samples were efficiently cleaned with each dilution of the selected PROSOCO Inc.'s cleaning products. Use higher concentrations and surface agitation to maximize aggregate exposure. Use low concentration and surface agitation to minimize aggregate exposure.

All dilutions of Sure Klean® Custom Masonry Cleaner tested affected the substrate in a similar manner, removing slight to heavy concentrations of pigmented matrix from the rough and smooth block faces, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

RECOMMENDED PRODUCTS AND DILUTIONS - CLEANING

Recommendations for cleaning for each type of CMU submitted by Van Poppelen Brothers Block, Bay City, MI are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar.

Block	Color	Sure Klean [®] Custom Masonry Cleaner (Type S mortar, 14 day)
Split-face CMU	Sunset	1:6
Smooth-face CMU	Sunset	1:2
Split-face CMU	Copperpot	1:6
Split-face CMU	Autumn Blend	1:6

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.

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.





SECTION B – COLOR UNIFORMITY:

DESCRIPTION OF PRODUCTS EVALUATED – Color Uniformity:

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.

TEST METHOD – Color Uniformity Testing:

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

Sure Klean[®] Custom Masonry Cleaner was evaluated at dilutions 1:2, 1:4, and 1:6. The following procedure was used:

- 1. Prewet the surface with water.
- 2. Apply each cleaner at the appropriate dilutions.
- 4. Reapply the products 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.





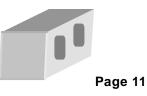
TEST RESULTS – Color Uniformity

Substrate: Split-face CMU	Pigment Col	or: "Sunset"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-face CMU	Pigment Col	or: "Sunset"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	2	3
Custom Masonry Cleaner	1:6	0	3
Substrate: Split-face CMU	Pigment Col	or: "Copperpot"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	0	3
Custom Masonry Cleaner	1:4	1	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-face CMU	Pigmont Col	or: "Autumn Blend"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	0	3
Custom Masonry Cleaner	1:4	1	3
Custom Masonry Cleaner	1:6	4	4

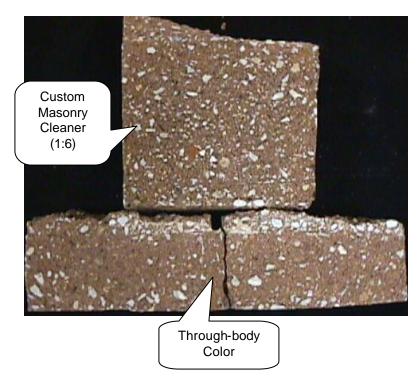
Scale used for reporting results of both categories

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



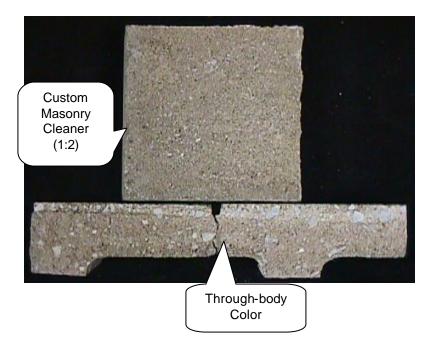


PHOTOGRAPHS – Color Uniformity



"Copperpot" CMU after cleaning

"Sunset" smooth-face CMU after cleaning







CONCLUSIONS: COLOR UNIFORMITY:

All dilutions of Sure Klean[®] Custom Masonry Cleaner tested affected the substrate in a similar manner. Higher concentrations of cleaner removed moderate to heavy concentrations of pigmented matrix, exposing small and large aggregate. Lower concentrations of cleaner removed slight to moderate concentrations of pigmented matrix, exposing small and large aggregate. All dilutions enhanced the natural appearance of the integrally colored CMU.

RECOMMENDATIONS - COLOR UNIFORMITY

Recommendations for color uniformity for each type of CMU submitted by Van Poppelen Brothers Block, Bay City, MI are provided in the chart below. Recommendations are based on the optimum dilution that provides the best color uniformity and the complete removal of mortar.

Block	Color	Sure Klean [®] Custom Masonry Cleaner (Type S mortar, 14 day)
Split-face CMU	Sunset	1:6
Smooth-face CMU	Sunset	1:2
Split-face CMU	Copperpot	1:6
Split-face CMU	Autumn Blend	1:6

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.

Note: To remove excess mortar while minimizing aggregate exposure and color enhancement, clean within 7 days of completion using Custom Masonry Cleaner diluted with 6 parts fresh water.

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.





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SECTION C - PROTECTIVE WATER REPELLENTS:

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

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

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

DESCRIPTIONS OF PRODUCTS EVALUATED - Protective Water Repellents:

Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control - A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, and concrete block without altering the natural appearance. Blok-Guard[®] & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering as well as long-lasting protection against many types of graffiti.

Sure Klean[®] Weather Seal Siloxane WB Concentrate – A self-emulsifying water repellent concentrate designed for dilution with fresh water at the jobsite. 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.

SAMPLE PREPARATION - Protective Water Repellents:

The submitted blocks were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. The treatment method consisted of a wet-on-wet brush application. All treatments were allowed to cure at least 3 days prior to testing.

TEST METHODS - 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

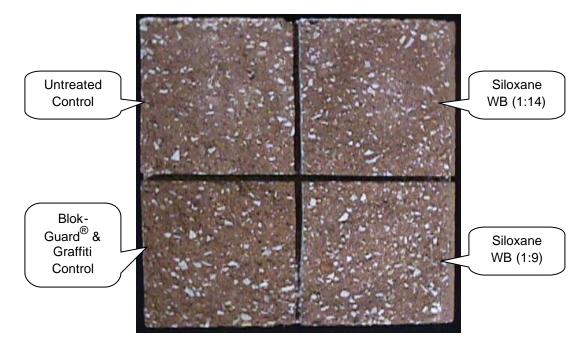
	RESULTS				
"Sunset" split-face					
Untreated Control	< 40 mph				
Blok-Guard [®] & Graffiti Control	58 mph				
Siloxane WB Concentrate (1:9)	59 mph				
Siloxane WB Concentrate (1:14)	58 mph				
"Sunset" smooth-face					
Untreated Control	< 40 mph				
Blok-Guard [®] & Graffiti Control	59 mph				
Siloxane WB Concentrate (1:9)	60 mph				
Siloxane WB Concentrate (1:14)	59 mph				
"Copperpot" split-face					
Untreated Control	< 40 mph				
Blok-Guard [®] & Graffiti Control	57 mph				
Siloxane WB Concentrate (1:9)	59 mph				
Siloxane WB Concentrate (1:14)	57 mph				
"Autumn Blend" split-face					
Untreated Control	< 40 mph				
Blok-Guard [®] & Graffiti Control	59 mph				
Siloxane WB Concentrate (1:9)	57 mph				
Siloxane WB Concentrate (1:14)	55 mph				



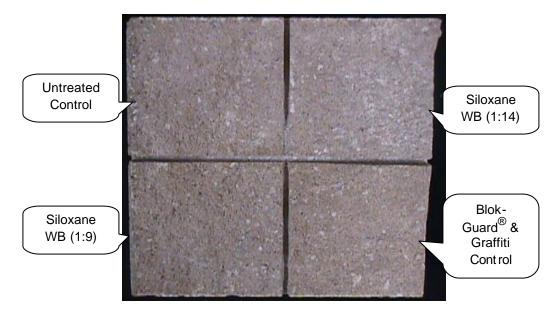


PHOTOGRAPHS – Protective Water Repellents

"Copperpot" split-face CMU after water repellency treatment



"Sunset" split-face CMU after water repellency treatment







CONCLUSIONS - Protective Water Repellents

Based upon laboratory evaluations, Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control and Sure Klean[®] Weather Seal Siloxane WB Concentrate diluted with nine parts fresh water provided above average water repellency to all submitted samples. Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control moderately enhanced the natural color of the CMUs and Sure Klean[®] Weather Seal Siloxane WB Concentrate slightly enhanced the natural color of the CMUs.

RECOMMENDATIONS - PROTECTIVE WATER REPELLENTS

Recommendations for water repellency treatment for each type of CMU submitted by Van Poppelen Brothers Block, Bay City, 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.

Block Type	Water Repellents	
"Sunset" split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)	
Sunset split-face CMO	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control	
"Sunset" smooth-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)	
Sunset smooth-face civio	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control	
"Copperpot" split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)	
Copperpor spin-race Civio	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control	
"Autumn Blend" split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)	
Autumn Biend spin-face Civio	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.



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SECTION D - GRAFFITI CONTROL

DESCRIPTION OF PRODUCTS EVALUATED

These trials were conducted to determine the optimal graffiti control treatment.

Graffiti Control Treatments

Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control – A clear, solvent -based silicone elastomer formulated to weatherproof custom masonry units, cast stone, and concrete block with altering the natural appearance. Blok-Guard[®] & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering as well as long-lasting protection against many types of graffiti.

Defacer Eraser[®] **Graffiti Barrier NS** – A clear, water-based, non-sacrificial coating for control of graffiti on most building surfaces. When mixed with PROSOCO's Protective Film Hardener component, Graffiti Barrier NS stops spray paints, crayons and ink from penetrating and staining.

Defacer Eraser[®] **Graffiti Barrier S** – A clear, water-based sacrificial coating for control of graffiti on most building surfaces. Easy-to-apply Graffiti Barrier S stops spray paints, crayons and ink from penetrating and staining the underlying surface.

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, wood and metal surfaces.

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

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





SAMPLE PREPARATION – Graffiti Control

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

Sections of the concrete samples were treated with either one coat of Sure Klean[®] Weather Seal Blok-Guard & Graffiti Control, Defacer Eraser[®] Graffiti Barrier S or Defacer Eraser[®] Graffiti Barrier NS in accordance with PROSOCO, Inc.'s Product Guide application recommendations and then allowed to cure for at least fourteen days. At the end of the fourteen-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 at least fourteen days 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, Sure Klean[®] Fast Acting Stripper or Defacer Eraser[®] Graffiti Release.

TEST METHOD – Graffiti Control

Chemical cleaners were evaluated using the following procedure:

- 1. Apply the product to a dry surface, soiled with graffiti.

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

"Sunset" split-face CMU				
Untreated Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	60%	70%	63%
Graffiti Wipe	60%	50%	60%	57%
Graffiti Release	60%	50%	50%	53%
Blok-Guard [®] & Graffiti Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	85%	80%	75%
Graffiti Wipe	60%	85%	85%	77%
Graffiti Barrier S	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	90%	90%	93%
Graffiti Wipe	90%	70%	70%	77%
Graffiti Release	80%	70%	80%	77%
Graffiti Barrier NS	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	70%	60%	63%
Graffiti Wipe	60%	20%	30%	37%
"ິSເ	Inset" smooth	-face CMU		
Untreated Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	50%	70%	72%
Graffiti Wipe	70%	50%	50%	57%
Graffiti Release	60%	50%	50%	53%
Blok-Guard [®] & Graffiti Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	60%	50%	60%
Graffiti Wipe	70%	40%	50%	53%
Graffiti Barrier S	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	85%	85%	89%
Graffiti Wipe	80%	80%	80%	80%
Graffiti Release	10%	80%	90%	60%
Graffiti Barrier NS	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	30%	20%	37%
Graffiti Wipe	50%	10%	10%	23%





TEST RESULTS – Graffiti Control Continued

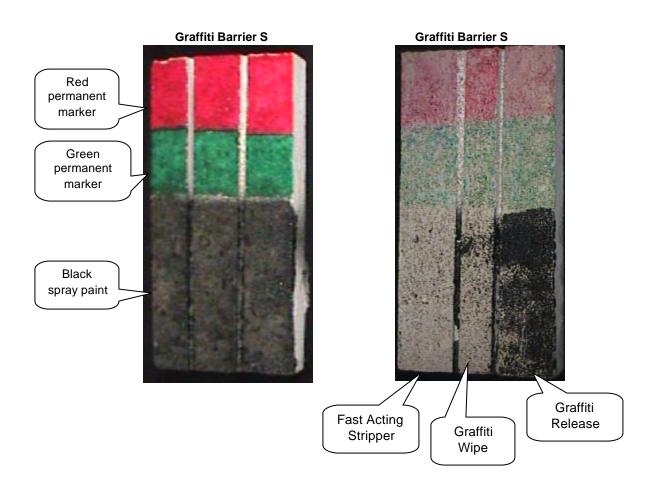
"Copperpot"				
Untreated Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	60%	60%	70%
Graffiti Wipe	85%	60%	60%	68%
Graffiti Release	60%	50%	60%	57%
Blok-Guard [®] & Graffiti Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	80%	80%	86%
Graffiti Wipe	90%	80%	80%	83%
Graffiti Barrier S	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	98%	95%	97%
Graffiti Wipe	85%	95%	95%	92%
Graffiti Release	70%	95%	98%	88%
Graffiti Barrier NS	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	60%	60%	67%
Graffiti Wipe	60%	10%	10%	27%
	"Autumn Ble	end"		
Untreated Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	30%	30%	52%
Graffiti Wipe	90%	10%	20%	40%
Graffiti Release	80%	10%	20%	37%
Blok-Guard [®] & Graffiti Control	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	95%	30%	50%	58%
Graffiti Wipe	98%	30%	40%	56%
Graffiti Barrier S	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	98%	80%	80%	86%
Graffiti Wipe	50%	80%	80%	70%
Graffiti Release	10%	80%	80%	57%
Graffiti Barrier NS	Black Paint	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	30%	30%	47%
				1





PHOTOGRAPHS – Graffiti Control

"Sunset" smooth-face CMU before & after graffiti testing

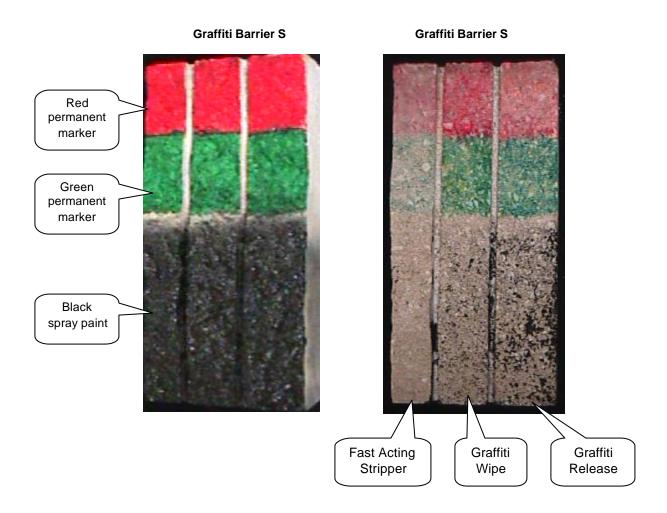






PHOTOGRAPHS – Graffiti Control Continued

"Sunset" split-face CMU before & after graffiti testing







CONCLUSIONS – Graffiti Control

Based upon laboratory evaluations, Sure Klean[®] Fast Acting Stripper was most effective at removing graffiti from the submitted samples. Graffiti removal was improved when the submitted samples were treated with Defacer Eraser[®] Graffiti Barrier S prior to graffiti application.

RECOMMENDATIONS – GRAFFITI CONTROL

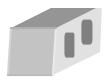
Recommendations for graffiti control treatment for each type of CMU submitted by Van Poppelen Brothers Block, Bay City, MI are provided in the chart below. Recommendations are based on the treatment that proved most effective for providing graffiti repellency and the product that was most effective at removing the graffiti on all types submitted.

Block Type	Graffiti Repellents	Graffiti Removers
"Sunset" split-face CMU	Defacer Eraser [®] Graffiti Barrier S	Sure Klean [®] Fast Acting Stripper
"Sunset" smooth-face CMU	Defacer Eraser [®] Graffiti Barrier S	Sure Klean [®] Fast Acting Stripper
"Copperpot" split-face CMU	Defacer Eraser [®] Graffiti Barrier S	Sure Klean [®] Fast Acting Stripper
"Autumn Blend" split-face CMU	Defacer Eraser [®] Graffiti Barrier S	Sure Klean [®] Fast Acting Stripper

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

Lisa Toburen Assistant Laboratory Technician

LT/CMN



Laboratory Report

Pallet Tag Program Evaluation

Van Poppelen Brothers Block Bay City, MI

Project No. 0203-07 PTP

Prepared For:

Eli Wildfong Van Poppelen Brothers Block 1301 North Sherman Street Bay City, MI 48707

Prepared By:



PROSOCO, Inc. May 2002