

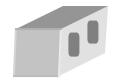
Page 1

TABLE OF CONTENTS	
SAMPLES SUBMITTED	2
PURPOSE OF TEST	
PRODUCTS EVALUATED	4
SECTION A – CLEANING INTEGRALLY COLORED CMUs	
DESCRIPTION OF PRODUCTS EVALUATED	5
TEST METHOD	5
TEST RESULTS	6-7
CONCLUSIONS	
RECOMMENDATIONS	8
SECTION B – COLOR UNIFORMITY	
DESCRIPTION OF PRODUCTS EVALUATED	9
TEST METHOD	
TEST RESULTS	
PHOTOGRAPHS OF CMU COLOR UNIFORMITY TESTING	
CONCLUSIONS	
RECOMMENDATIONS	13
SECTION C - PROTECTIVE WATER REPELLENTS	
DESCRIPTION OF PRODUCTS EVALUATED	
TEST METHODS	
TEST RESULTS	
PHOTOGRAPHS OF CMU WATER REPELLENCY	17

### **ATTACHMENTS**

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





Page 2

FOR: John Sanuk

Cc: Alan Stickler

Perry Surber Stephen Dean John Bourne

**SUBJECT:** Chas Svec Inc.

Maple Heights, OH

**DATE:** July 9, 2002

**PROJECT:** 0204-24 PTP

**SAMPLES SUBMITTED:** Eight colors of concrete block, seven split-face, and one smooth-face.

<u>Block</u>	<u>Color</u>	<u>Size</u>
(5) Split-face CMUs	"Arctic White"	16" x 8" x 8"
(5) Split-face CMUs	"Way White"	16" x 8" x 8"
(5) Split-face CMUs	"Korktan"	16" x 8" x 8"
(5) Split-face CMUs	"Earthstone"	16" x 8" x 8"
(5) Split-face CMUs	"Gray K"	16" x 8" x 8"
(5) Split-face CMUs	"Lite Buff"	16" x 8" x 8"
(5) Split-face CMUs	"Lite Weight"	16" x 8" x 8"
(5) Smooth-face CMUs	"Rustic Red Blend"	16" x 8" x 8"

Submitted by: Alan Stickler





Page 3

#### PURPOSE OF TESTING:

Seven 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<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner were 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<sup>®</sup> 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<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner were 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

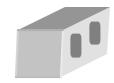
### \* NOTE: When cleaning integrally colored CMU.

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<sup>®</sup> Custom Masonry Sealer and Sure Klean<sup>®</sup> Weather Seal Siloxane WB Concentrate were evaluated for their ability to provide water repellency to the submitted samples.





Page 4

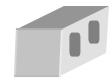
### PRODUCTS EVALUATED FOR CLEANING AND COLOR UNIFORMITY

Block Type	Product	Dilution
All submitted CMUs	Sure Klean <sup>®</sup> Custom Masonry Cleaner	1:2, 1:4, 1:6
All Submitted Olvios	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner	1:2, 1:3

### WATER REPELLENT PRODUCTS EVALUATED

Block Type	Product	Dilution
All submitted CMUs	Sure Klean <sup>®</sup> Custom Masonry Sealer	Concentrate
7 iii Gubiiiiiled Givios	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate	1:9, 1:14





Page 5

#### 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.

**Sure Klean**<sup>®</sup> **Burnished Custom Masonry Cleaner** – A general purpose, non-etching acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

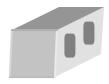
#### **TEST METHOD - Cleaning**

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

- 1. Prewet the surface with water.
- 2. Apply each cleaner at the appropriate dilutions.
- 3. Allow appropriate dwell time for each cleaner:

- 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.





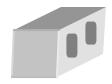
Page 6

### **TEST RESULTS - Cleaning**

### % removal

"Arctic White" split-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%
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
-	"Way White" split	-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%
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
	"Mankton" andit i	·		
Dreduct	"Korktan" split-1		7 day	11 day
Product Custom Massary Classes	Dilution 1:2	<b>3 day</b> 100%	<b>7 day</b> 100%	<b>14 day</b> 100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
Custom Masonry Cleaner  Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
·	1:3	100%	100%	100%
Burnished Custom Masonry Cleaner	1.3	100%	100%	100%
•	'Earthstone" spli	t-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%
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
	"Gray K" split-fa	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%
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%





Page 7

### **TEST RESULTS – Cleaning Continued**

#### % removal

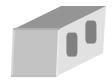
"Lite Buff" split-face					
Product	Dilution	3 day	7 day	14 day	
Custom Masonry Cleaner	1:2	100%	100%	100%	
Custom Masonry Cleaner	1:4	100%	100%	100%	
Custom Masonry Cleaner	1:6	100%	100%	100%	
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%	
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%	
(4)	ite Weight" spl	it-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%	
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%	
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%	
<b>"</b>					
	Red Blend" sr				
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%	
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%	
Burnished Custom Masonry Cleaner	1:3	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<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished 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.





Page 8

#### RECOMMENDED PRODUCTS AND DILUTIONS - CLEANING

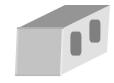
Recommendations for cleaning for each type of CMU submitted by Chas Svec Inc., Maple Heights, OH are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar.

Block	Color	New Construction Cleaning (Type S mortar, 14 day)
Split-face CMU	Arctic White	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Spiit-lace Civio	Arctic Wille	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Split-face CMU	Way White	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Spiit-lace Civio	vvay vviiite	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Split-face CMU	Korktan	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Spiit-lace Civio	Korkian	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Split-face CMU	Earthstone	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Spiit-lace Civio	Laitiistorie	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Calit food CMIII	Crov K	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Split-face CMU	Gray K	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Split food CMII	Lite Buff	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Split-face CMU	Lite Buil	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Split food CMII	Lita Waight	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Split-face CMU	Lite Weight	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Smooth food CMII	Rustic Red Blend	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Smooth-face CMU	Rustic Red blend	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)

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





Page 9

#### **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.

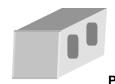
**Sure Klean Burnished Custom Masonry Cleaner** – A general purpose, non-etching acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

#### **TEST METHOD – Color Uniformity Testing:**

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

- 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.





Page 10

### **TEST RESULTS – Color Uniformity**

Substrate: Split-face CMU	Pigment Col	or: "Arctic White"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	3	3
Burnished Custom Masonry Cleaner	1:2	2	2
Burnished Custom Masonry Cleaner	1:3	3	3
Substrate: Smooth-face CMU	Pigment Col	or: "Way White"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	3
Custom Masonry Cleaner	1:4	2	3
Custom Masonry Cleaner	1:6	3	3
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	3	3
Substrate: Split-face CMU	Pigment Col	or: "Korktan"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	3
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	2	2
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Split-face CMU	Pigment Col	or: "Earthstone"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	3	3
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	3	3

Scale used for reporting results of both categories

0 – **Worst** match to through-body

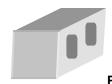
3 – **Good** match to through-body

1 – **Poor** match to through-body

4 – **Best** match to through-body

2 – **Fair** match to through-body





Page 11

### **TEST RESULTS – Color Uniformity Continued**

Substrate: Split-face CMU	Pigment Col	or: "Gray K"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	3	2
Burnished Custom Masonry Cleaner	1:2	2	2
Burnished Custom Masonry Cleaner	1:3	3	3
Substrate: Smooth-face CMU	Pigment Cole	or: "Lite Buff"	
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	2	2
Burnished Custom Masonry Cleaner	1:2	2	2
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Split-face CMU	Pigment Col	or: "Lite Weight"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	1	1
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	4	4
Burnished Custom Masonry Cleaner	1:2	1	1
Burnished Custom Masonry Cleaner	1:3	3	3
Substrate: Split-face CMU	Pigment Cole	or: "Rustic Red Blend"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	1
Custom Masonry Cleaner	1:4	2	1
Custom Masonry Cleaner	1:6	2	3
Burnished Custom Masonry Cleaner	1:2	2	1
Burnished Custom Masonry Cleaner	1:3	2	2

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

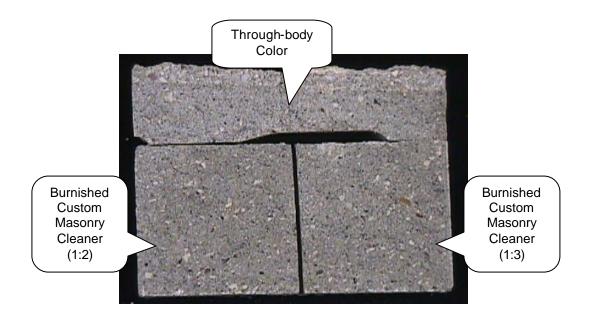
4 – **Best** match to through-body

2 – **Fair** match to through-body

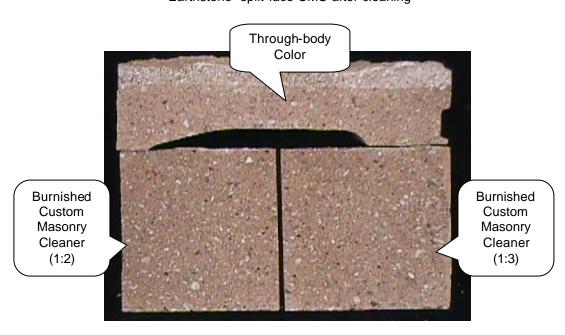
Page 12

### **PHOTOGRAPHS – Color Uniformity**

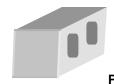
"Gray K" split-face CMU after cleaning



### "Earthstone" split-face CMU after cleaning







Page 13

#### **CONCLUSIONS - COLOR UNIFORMITY**

All dilutions of Sure Klean<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished 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 Chas Svec. Inc., Maple Heights, OH are provided in the chart below. Recommendations are based on the optimum dilution that provides the best color uniformity.

Block	Color	Color Uniformity
Split-face CMU	Arctic White	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Spin-lace Givio	Arctic Wille	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
		Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Split-face CMU	Way White	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:2, 1:3)
Split-face CMU	Korktan	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:2)
		Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Split-face CMU	Earthstone	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:2, 1:3)
Split-face CMU	Gray K	Sure Klean <sup>®</sup> Burnished Custom Masonry Cleaner (1:3)
Split-face CMU	Lite Buff	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:2,1:4)
Split-face CMU	Lite Weight	Sure Klean <sup>®</sup> Custom Masonry Cleaner (1:6)
Smooth-face CMU	Rustic Red Blend	Sure Klean <sup>®</sup> Custom Masonry Cleaner (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.





Page 14

#### 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<sup>®</sup> Custom Masonry Sealer -** A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, and concrete block without altering the natural appearance. Custom Masonry Sealer 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:**

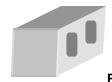
The submitted blocks were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. The treatment method consisted of a wet-on-wet brush application. All treatments were allowed to cure at least 3 days prior to testing.

### **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.





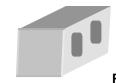
Page 15

### **TEST RESULTS - Protective Water Repellents:**

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

	RESULTS
"Arctic White"	
Untreated Control	57 mph
Custom Masonry Sealer	60 mph
Siloxane WB Concentrate (1:9)	60 mph
Siloxane WB Concentrate (1:14)	59 mph
"Way White"	
Untreated Control	< 40 mph
Custom Masonry Sealer	59 mph
Siloxane WB Concentrate (1:9)	58 mph
Siloxane WB Concentrate (1:14)	59 mph
"Korktan"	
Untreated Control	< 40 mph
Custom Masonry Sealer	58 mph
Siloxane WB Concentrate (1:9)	55 mph
Siloxane WB Concentrate (1:14)	60 mph
"Earthstone"	
Untreated Control	51 mph
Custom Masonry Sealer	59 mph
Siloxane WB Concentrate (1:9)	60 mph
Siloxane WB Concentrate (1:14)	60 mph





Page 16

### **TEST RESULTS - Protective Water Repellents:**

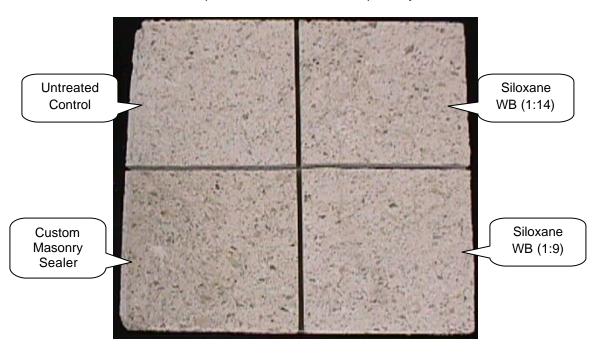
Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes

	RESULTS
"Gray K"	
Untreated Control	< 40 mph
Custom Masonry Sealer	58 mph
Siloxane WB Concentrate (1:9)	59 mph
Siloxane WB Concentrate (1:14)	58 mph
"Lite Buff"	
Untreated Control	< 40 mph
Custom Masonry Sealer	59 mph
Siloxane WB Concentrate (1:9)	54 mph
Siloxane WB Concentrate (1:14)	59 mph
"Lite Weight"	
Untreated Control	< 40 mph
Custom Masonry Sealer	60 mph
Siloxane WB Concentrate (1:9)	46 mph
Siloxane WB Concentrate (1:14)	< 40 mph
"Rustic Red Blend"	
Untreated Control	< 40 mph
Custom Masonry Sealer	58 mph
Siloxane WB Concentrate (1:9)	60 mph
Siloxane WB Concentrate (1:14)	60 mph

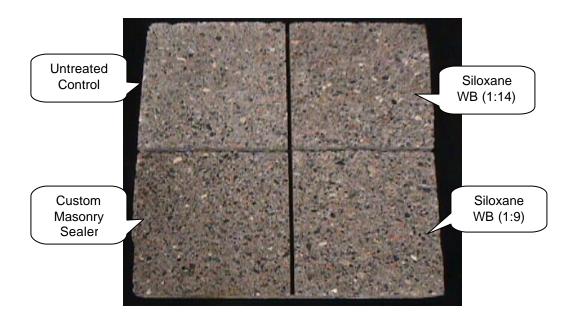
Page 17

### **PHOTOGRAPHS – Protective Water Repellents**

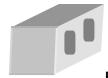
"Arctic White" split-face CMU after water repellency treatment



"Lite Weight" split-face CMU after water repellency treatment







Page 18

### **CONCLUSIONS - Protective Water Repellents**

Based upon laboratory evaluations, Sure Klean<sup>®</sup> Custom Masonry Sealer and Sure Klean<sup>®</sup> Weather Seal Siloxane WB Concentrate diluted with nine or fourteen parts fresh water provided above average water repellency to most of the submitted samples. Sure Klean<sup>®</sup> Weather Seal Siloxane WB Concentrate in a one to fourteen dilution did not provide adequate water repellency to CMU type "Lite Weight". Sure Klean<sup>®</sup> Custom Masonry Sealer moderately enhanced the natural color of the CMUs and Sure Klean<sup>®</sup> 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 Chas Svec, Maple Heights, OH 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.

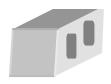
Block Type	Water Repellents
"Arctic White" split-face CMU	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9), (1:14)
	Sure Klean <sup>®</sup> Custom Masonry Sealer
"Way White" split-face CMU	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9), (1:14)
	Sure Klean <sup>®</sup> Custom Masonry Sealer
"Korktan" split-face CMU	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9), (1:14)
	Sure Klean <sup>®</sup> Custom Masonry Sealer
"Earthstone" split-face CMU	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9), (1:14)
	Sure Klean <sup>®</sup> Custom Masonry Sealer
"Gray K"	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9), (1:14)
	Sure Klean <sup>®</sup> Custom Masonry Sealer
"Lite Buff"	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9), (1:14)
	Sure Klean <sup>®</sup> Custom Masonry Sealer
"Lite Weight"	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9)
	Sure Klean <sup>®</sup> Custom Masonry Sealer
"Rustic Red Blend"	Sure Klean <sup>®</sup> Weather Seal Siloxane WB Concentrate (1:9), (1:14)
	Sure Klean <sup>®</sup> Custom Masonry Sealer

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.

LisaStorped

Lisa Toburen Assistant Laboratory Technician

LT/CMN



## **Laboratory Report**

## **Pallet Tag Program Evaluation**

# **Chas Svec Inc. Maple Heights, OH**

Project No. 0204-24 PTP

Prepared For:

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Prepared By:



PROSOCO, Inc. July 2002