



Page 1

TABLE OF CONTENTS	
SAMPLES SUBMITTED	3
PURPOSE OF TEST	4-5
PRODUCTS EVALUATED	6
SECTION A – CLEANING INTEGRALLY COLORED CMUs	
DESCRIPTION OF PRODUCTS EVALUATED	7
TEST METHOD	7
TEST RESULTS	8
CONCLUSIONS	8
RECOMMENDATIONS	8
SECTION B – SURFACE ALTERATIONS	
DESCRIPTION OF PRODUCTS EVALUATED	9
TEST METHOD	9
TEST RESULTS	10-12
PHOTOGRAPH (Surface Alterations)	13
CONCLUSIONS	14
RECOMMENDATIONS	14
SECTION C - PROTECTIVE WATER REPELLENTS	
DESCRIPTION OF PRODUCTS EVALUATED	15
TEST METHODS	15
TEST RESULTS	16-17
PHOTOGRAPH (Water Repellent)	18
CONCLUSIONS	19
RECOMMENDATIONS	19





Page 2

#### **ATTACHMENTS**

Technical Services TECH Note RILEM Test Method No. II.4

Product Data literature for all products evaluated

Material Safety Data Sheets for all products evaluated





Page 3

FOR: John Thiel

cc: Kevin Gwinn

Mike Dickey

**SUBJECT:** Marquart Block Company

PO Box 990

Waterloo, IA 50704

**DATE:** April 20, 2001

**PROJECT:** 0102-13 BP

SAMPLES SUBMITTED: 5 splitface CMUs and 6 smooth CMUs, faces only

<u>Block</u>	<u>Color</u>	<u>Size</u>
Splitface CMU retaining wall	"Natural"	9" x 18" x 4"
Smooth CMU	"#387 Beige"	8" x 16" x 2"
Splitface CMU	"Charcoal"	8" x 16" x 2"
Splitface CMU	"Natural"	8" x 16" x 2"
Splitface CMU w/ Dry Block	"#48 Beige"	8" x 16" x 2"
Smooth CMU w/ Dry Block	"#16 Red"	8" x 16" x 2"
Smooth CMU w/ Dry Block	"Natural White"	8" x 16" x 2"
Splitface CMU sill w/ Dry Block	"#48 Beige"	8" x 8" x 4"
Smooth CMU w/ Dry Block	"#78 Brown"	8" x 16" x 2"
Smooth CMU w/ Dry Block	"#48 Beige"	8" x 16" x 2"
Smooth CMU w/ Dry Block	"#19 Brown"	8" x 16" x 2"

Submitted by: Mike Dickey





Page 4

#### **PURPOSE OF TESTING:**

Five integrally colored splitface and six smooth integrally colored concrete blocks 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 cementitious mortar. The wet, mortar-filled cylinder is allowed to remain in contact with the CMU for 10 minutes before removal.

Soiled CMUs are allowed to dry before test cleaning.

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<sup>®</sup> Type S mortar staining after 3 days, 7 days, and 14 days of curing.

Refer to "\*Note: When cleaning integrally colored CMU" in the following section, "Surface Alteration Testing."

**B. Surface Alteration Testing -** Sure Klean<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner was tested at various dilutions to determine if a cleaning program implemented to remove excess mortar and related new construction soiling would otherwise alter the appearance of cleaned surfaces. Surface Alteration was evaluated visually based upon perceived discoloration or erosion/etching of the masonry unit.

<u>Aggregate Exposure</u> is the visual examination of the CMU comparing aggregate exposure of the untreated control surface to surfaces cleaned with selected product(s) at given dilutions.

<u>Surface Pigment Alteration/Removal\*</u> is the visual examination of the CMU comparing the surface pigmentation of the untreated control to surfaces cleaned with selected product(s) at given dilutions.

<u>Matrix Erosion</u> is the visual examination comparing the untreated control surface to surfaces cleaned with selected products at given dilutions looking for any potential erosion/digestion of the cementitious matrix of the CMU.

<u>Staining</u> is the visual examination for changes that are the result of a chemical reaction that leaves a staining precipitate.

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

0 – no change 3 – heavy 4 – excessive

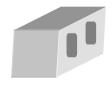
2 - moderate

#### \* 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.





Page 5

**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 6

#### **CLEANING PRODUCTS EVALUATED**

BLOCK TYPE	Custom Masonry Cleaner	Burnished Custom Masonry Cleaner
	1:2	1:2
All Colors of Splitface and Smooth CMUs	1:4	
	1:6	1:3

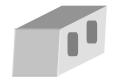
#### SURFACE ALTERATION PRODUCTS EVALUATED

BLOCK TYPE	Custom Masonry Cleaner	Burnished Custom Masonry Cleaner
	1:2	1:2
All Colors of Splitface and Smooth CMUs	1:4	
	1:6	1:3

#### WATER REPELLENT PRODUCTS EVALUATED

BLOCK TYPE	Product	Dilution
All Colors of	Custom Masonry Sealer	Concentrate
Splitface and Smooth CMUs	Siloxane WB Concentrate	1:9





Page 7

#### **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.

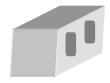
**Sure Klean® Burnished Custom Masonry Cleaner** – A general purpose, nonetching acidic cleaner for custom masonry and colored concrete. Removes rust, mud, oil, atmospheric dirt, and other stains without altering the surface texture. Liquid concentrate for dilution with 2-3 parts water. Apply by brush 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.
- 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 8

#### **Test Results - Cleaning**

Block Type	Cleaner	Dilution	Cure	Effectiveness								
		1:2		100%								
		1:4	3 day	100%								
		1:6		100%								
	Custom	1:2		100%								
	Masonry	1:4	7 day	100%								
	Cleaner	1:6		100%								
All Colors of		1:2		100%								
Splitface and Smooth CMUs							1:4	14 day	100%			
opiniuse and sinesin sines		1:6		100%								
		1:2	3 day	99%								
	Burnished	1:3		99%								
	Custom Masonry	Masonry								1:2	7 day	99%
				1:3	<i>i</i> day	99%						
	Cleaner	1:2	14 day	99%								
		1:3	14 day	99%								

#### **CONCLUSIONS - Cleaning:**

Based on the test data, all of the submitted block samples were effectively 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.

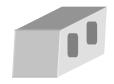
All dilutions of Sure Klean<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner tested affected the substrate in a similar manner, removing heavy concentrations of pigmented matrix from the splitface and smooth block faces, exposing small and large aggregate,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

#### **RECOMMENDED PRODUCTS AND DILUTIONS - CLEANING:**

Based on these evaluations, all of the dilutions of Sure Klean<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner tested can be recommended for job site testing on all submitted CMUs from Marquart Block Company, Waterloo, IA. They all are effective in removing excess mortar, and they all assist in improving the color and uniformity of these concrete blocks. 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 Sure Klean<sup>®</sup> Custom Masonry Cleaner diluted with 6 parts fresh water or Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner diluted with 3 parts water.





Page 9

#### **SECTION B - Surface Alterations:**

#### **DESCRIPTION OF PRODUCTS EVALUATED – Surface Alterations:**

**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.

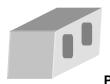
**Sure Klean® Burnished Custom Masonry Cleaner** – A general purpose, nonetching acidic cleaner for custom masonry and colored concrete. Removes rust, mud, oil, atmospheric dirt, and other stains without altering the surface texture. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

#### **TEST METHOD – Surface Alteration Testing:**

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.
- 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 10

#### **Surface Alteration Results:**

Substrate: Splitface CMU r.w.*	Pigment Co	olor: "Natural"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	1	3	0
Custom Masonry Cleaner	1:4	2	1	2	0
Custom Masonry Cleaner	1:6	1	1	1	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: Smooth CMU	Pigment Co	olor: "#387 Be			•
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	1	3	0
Custom Masonry Cleaner	1:4	2	1	2	0
Custom Masonry Cleaner	1:6	1	1	1	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: Splitface CMU	Pigment Color: "Charcoal"				
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: Splitface CMU	Pigment Color: "Natural"				
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	1	2	1	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	0	1	0	0

Scale used for reporting results of all categories

0 – no change

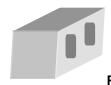
3 - heavy

1 – slight

4 – excessive

<sup>2 –</sup> moderate





Page 11

#### **Surface Alteration Results Continued:**

Substrate: Splitface CMU	Pigment Co	olor: "#48 Beig	ıe"		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	2	1	2	0
Custom Masonry Cleaner	1:4	1	1	1	0
Custom Masonry Cleaner	1:6	0	1	0	0
Burnished Custom Masonry Clnr	1:2	0	1	0	0
Burnished Custom Masonry Clnr	1:3	0	1	0	0
Substrate: Smooth CMU	Pigment Co	olor: "#16 Red	,,		•
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: Smooth CMU	Pigment Color: "Natural White"				
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	2	2	2	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	1	2	1	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	0	1	0	0
Substrate: Splitface CMU sill	Pigment Color: "#48 Beige"			_	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	2	1	2	0
Custom Masonry Cleaner	1:4	1	1	1	0
Custom Masonry Cleaner	1:6	1	1	1	0
Burnished Custom Masonry Clnr	1:2	N/A	N/A	N/A	N/A
Burnished Custom Masonry Clnr	1:3	N/A	N/A	N/A	N/A

N/A – Testing was not performed due to insufficient amount of substrate.

Scale used for reporting results of all categories

0 – no change

3 – heavy

1 – slight

4 – excessive

2 – moderate





Page 12

#### **Surface Alteration Results Continued:**

Substrate: Smooth CMU	Pigment Co	olor: "#78 Brov	vn"		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: Smooth CMU	Pigment Co	olor: "#48 Beig	e"		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	1	3	0
Custom Masonry Cleaner	1:4	2	1	2	0
Custom Masonry Cleaner	1:6	2	1	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: Smooth CMU	Pigment Co	olor: "#19 Brov	vn"		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0

Scale used for reporting results of all categories

0 – no change 1 – slight 3 – heavy

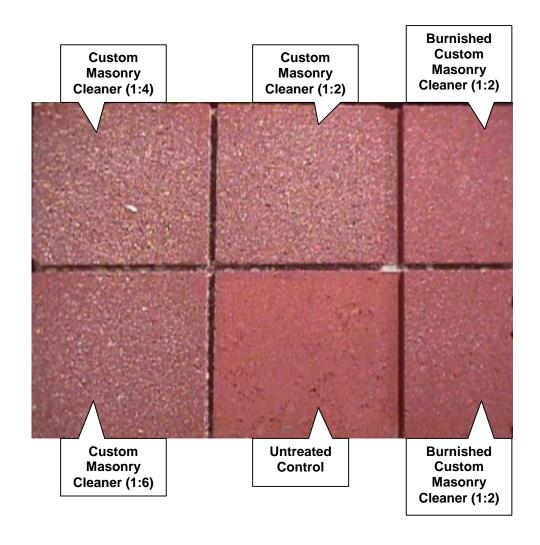
2 – moderate

4 - excessive



Page 13

Photos of "#16 Red" after 21 day cleaning:







Page 14

#### **CONCLUSIONS – Surface Alterations:**

All dilutions of Sure Klean<sup>®</sup> Custom Masonry Cleaner tested affected the CMUs in a similar manner, removing heavy concentrations of pigmented matrix, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

All dilutions of Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner tested affected the CMUs in a similar manner, limiting the removal of surface finish, limiting the exposure of small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

#### **RECOMMENDATIONS – Surface Alterations:**

Based on evaluations, Sure Klean<sup>®</sup> Custom Masonry Cleaner and Sure Klean<sup>®</sup> Burnished Custom Masonry Cleaner in all dilutions are recommended for job site testing on all types of the submitted CMUs from Marquart Block Company, Waterloo, IA.

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 15

#### **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<sup>®</sup> 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 14 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.





Page 16

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

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

	RESULTS			
"Natural" Splitface CMU retaining wall				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"#387 Beige" Smooth CMU				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"Charcoal" Splitface CMU				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"Natural" Splitface CMU				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"#48 Beige" Splitface w/ Dry Block				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"#16 Red" Smooth CMU w/ Dry Block				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			

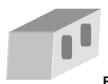




Page 17

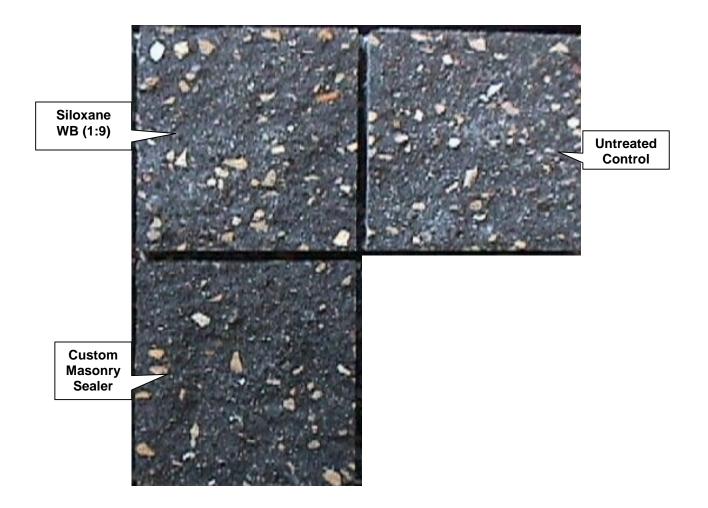
#### **Test Results Continued - Protective Water Repellents:**

"Natural White" Smooth CMU w/ Dry Block				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"#48 Beige" Splitface CMU sill w/ Dry B	lock			
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"#78 Brown" Smooth CMU w/ Dry Blo	ck			
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"#48 Beige" Smooth CMU w/ Dry Block				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			
"#19 Brown" Smooth CMU w/ Dry Block				
Untreated Control	<40 mph			
Custom Masonry Sealer	60 mph			
Siloxane WB (1:9)	60 mph			

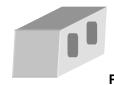


Page 18

Photos of "Charcoal" after water repellent treatment:







Page 19

#### **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 at a 1:9 dilution were able to provide adequate water repellency when applied to the various styles of submitted CMUs. Sure Klean<sup>®</sup> Custom Masonry Sealer slightly enhanced the natural appearance of the substrate; while Sure Klean<sup>®</sup> Weather Seal Siloxane WB Concentrate at a 1:9 dilution did not alter the CMUs' appearance in any way.

#### **RECOMMENDATIONS - Protective Water Repellents:**

Based on evaluations, Sure Klean<sup>®</sup> Custom Masonry Sealer and Sure Klean<sup>®</sup> Weather Seal Siloxane WB Concentrate at a 1:9 dilution can be recommended for jobsite testing on all block types submitted by the Marquart Block Company, Waterloo, IA.

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.

Jason L. Anderson Materials Testing Technician

Jason La anderson

JLA/csm



### Laboratory Report

### **Block Program Evaluation**

# Marquart Block Company Waterloo, IA

Project No. 0102-13 BP

Prepared For:

John Thiel Marquart Block Company PO Box 990 Waterloo, IA 50704

Prepared By:



PROSOCO, Inc. April 2001