

Page 1

TABLE OF CONTENTS	
SAMPLES SUBMITTED	2
PURPOSE OF TEST	3-4
PRODUCTS EVALUATED	5
SECTION A - CLEANING INTEGRALLY COLORED CMUs	
DESCRIPTION OF PRODUCTS EVALUATED	6
TEST METHOD	6
TEST RESULTS	7
CONCLUSIONS	7
RECOMMENDATIONS	8
SECTION B - SURFACE ALTERATIONS	
DESCRIPTION OF PRODUCTS EVALUATED	9
TEST METHOD	9
TEST RESULTS	10-12
CONCLUSIONS	13
RECOMMENDATIONS	13
SECTION C — PROTECTIVE WATER REPELLENTS	
DESCRIPTION OF PRODUCTS EVALUATED	14
TEST METHODS	14
TEST RESULTS	15-17
CONCLUSIONS	18
RECOMMENDATIONS	19-20

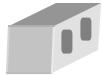
ATTACHMENT

Attachment #1 - Surface Alterations

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

Product Data literature for all products evaluated





PROSOCO, Inc.

FOR: John Roeser
cc: Richard Mirowski
Paul Tessier

SUBJECT: Yavapai Block Company, Inc

Prescott, AZ

DATE: February 19, 2002

PROJECT: 0201-16 BP

SAMPLES SUBMITTED: One of each block type submitted

SAMPLE	<u>DESCRIPTION</u>	SIZE
(A) Smooth-face CMU	S+R Grey	8" x 8" x 16"
(B) Smooth-face CMU	Med. Wt. Grey	8" x 8" x 16"
(C) Split-face CMU	SIS* Med. Grey	8" x 8" x 16"
(D) Split-face CMU	SIS* D/B Grey	8" x 8" x 16"
(E) Smooth-face CMU	SIS* Med. Wt. Smooth Brown = Geo Buff/ w/ D.B.	8" x 8" x 16"
(F) Split-face CMU	SIS* Med. Wt. Purple Haze	8" x 8" x 16"
(G) Smooth-face CMU	Smooth Med. Wt. Sedona Red	8" x 8" x 16"
(H) Split-face CMU	SIS* S+R Purple Haze	8" x 8" x 16"
(I) Smooth-face CMU	Smooth S+R Red	8" x 8" x 16"
(J) Split-face CMU	SIS* S+R AZ. Red	8" x 8" x 16"
(K) Smooth-face CMU	SIS* Med. Wt. D/B Brown	8" x 8" x 16"
(L) Split-face CMU	SIS* Med. Wt. D/B Golden Rod	8" x 8" x 16"
(M) Smooth-face CMU	Smooth D/B Sedona Red	6" x 8" x 16"
(N) Split-face CMU	SIS* D/B S+R Sedona Red	8" x 8" x 16"
(O) Smooth-face CMU	Smooth S+R Purple Haze	8" x 8" x 16"
(P) Split-face CMU	SIS* Med. Wt. Papago Red	8" x 8" x 16"
(Q) Smooth-face CMU	Smooth Med. Wt. Brown	8" x 8" x 16"

^{* -} SIS - Split-one-side

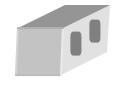
NOTE: For the purposes of testing and reporting the results, samples will be referred to by their corresponding letter in the alphabet.

Submitted by: John Roeser

Yavapai Block Company 1389 Masonry Way Prescott, AZ 86301

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Page 3

PURPOSE OF TESTING:

Nine types of integrally colored smooth-face and eight types of integrally colored split-face CMUs 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 and Sure Klean[®] 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[®] 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[®] Type S mortar staining after 7 days of curing.

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

B. Surface Alteration Testing – Sure Klean[®] Custom Masonry Cleaner and Sure Klean[®] Burnished Custom Masonry Cleaner were 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 1 – slight 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.

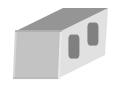




Page 4

C. Protective Water Repellents – Sure Klean[®] Custom Masonry Sealer (some with two applications) and Sure Klean[®] Weather Seal Siloxane WB Concentrate were evaluated for their ability to provide water repellency to the submitted samples. All samples were evaluated for water repellency by using RILEM method II.4.





Page 5

CLEANING PRODUCTS EVALUATED

SAMPLE	PRODUCT	DILUTION
All colors of split-face CMUs	Sure Klean [®] Custom Masonry Cleaner	1:2, 1:4, 1:6
All colors of smooth-face CMUs	Sure Klean [®] Burnished Custom Masonry Cleaner	1:2, 1:3

SURFACE ALTERATION PRODUCTS EVALUATED

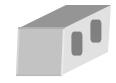
SAMPLE	PRODUCT	DILUTION
All colors of split-face CMUs	Sure Klean [®] Custom Masonry Cleaner	1:2, 1:4, 1:6
All colors of smooth-face CMUs	Sure Klean [®] Burnished Custom Masonry Cleaner	1:2, 1:3

WATER REPELLENT PRODUCTS EVALUATED

SAMPLE	PRODUCT	DILUTION
All colors of split-face and	Sure Klean [®] Weather Seal Siloxane WB Concentrate	1:9
smooth-face CMUs	Sure Klean [®] Custom Masonry Sealer (1 application)	Concentrate
CMU types (B), (C), (D), (E), (F), (G), (H), (L), and (M)	Sure Klean [®] Custom Masonry Sealer (2 applications)	Concentrate

NOTE: Dilution ratios refer to mixtures of concentrated product : fresh water.





Page 6

SECTION A - CLEANING INTEGRALLY COLORED CMUs

DESCRIPTION OF PRODUCTS EVALUATED

These cleaning trials were conducted to determine the optimal cleaning/cure time combination to most efficiently remove mortar from the submitted split-face and ground-face CMU samples.

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.

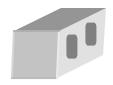
TEST METHOD – Cleaning

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 dilution.
- 3. Allow appropriate exposure time:

- 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 7

Test Results - Cleaning

SAMPLE	CLEANER	DILUTION	CURE	% EFFECTIVENESS
All colors of split-face		1:2		100%
CMUs except for (P)	Sure Klean [®] Custom Masonry Cleaner	1:4	7 day	100%
		1:6		100%
All colors of smooth-face CMUs	Sure Klean [®]	1:2	7 day	100%
except for (I)	Burnished Custom Masonry Cleaner	1:3	r day	100%

SAMPLE	CLEANER	DILUTION	CURE	% EFFECTIVENESS		
	1:2					97%
(P) Split-face CMU	Sure Klean [®] Custom Masonry Cleaner	1:4	7 day	97%		
		1:6		100%		
(1)	Sure Klean [®]	1:2	7 day	98%		
Smooth-face CMU	nooth-face CMU Burnished Custom Masonry Cleaner 1:3		r day	98%		

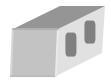
CONCLUSIONS - Cleaning

Based on the test data, all of the submitted block samples were efficiently cleaned with each dilution of the selected PROSOCO Inc. 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 moderate concentrations of pigmented matrix from the split-face CMUs, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

All dilutions of Sure Klean[®] Burnished Custom Masonry Cleaner tested affected the substrate in a similar manner, removing slight concentrations of pigmented matrix from the smooth-face CMUs, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.





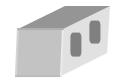
Page 8

RECOMMENDED - CLEANING

Based on these evaluations, all dilutions tested of Sure Klean[®] Custom Masonry Cleaner can be recommended on all split-face CMUs and Sure Klean[®] Burnished Custom Masonry Cleaner can be recommended on all smooth-face CMUs for job-site testing on the CMUs submitted by Yavapai Block Company, Inc, Prescott, AZ. 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.

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





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, 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.

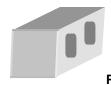
TEST METHOD - Surface Alterations

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 dilution.
- 3. Allow appropriate exposure time:

- 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

TEST RESULTS - Surface Alterations

Substrate: (A) Smooth-face CMU	Pigment	Color: S+R Gre			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: (B) Smooth-face CMU	Pigment	Color: Med. W	t. Grey		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: (C) Split-face CMU	Pigment	Color: Med. G	rey		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	1	1	1	0
Custom Masonry Cleaner	1:4	1	1	1	0
Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: (D) Split-face CMU	Pigment Color: D/B Grey				
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	1	1	1	0
Custom Masonry Cleaner	1:4	1	1	1	0
Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: (E) Smooth-face CMU	Pigment	Color: Med. W	/t. Smooth Brown = Geo	Buff/ w/ D.E	3.
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: (F) Split-face CMU	Pigment Color: SIS Med. Wt. Purple Haze				
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	1	1	1	0
Custom Masonry Cleaner	1:4	1	1	1	0
Custom Masonry Cleaner	1:6	1	1	1	0

Scale used for reporting results of all categories

0 – no change

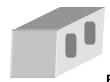
3 – heavy

1 – slight

4 - excessive

2 – moderate





Page 11

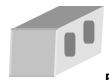
Substrate: (G) Smooth-face CMU	Pigment Color: Smooth Med. Wt. Sedona Red					
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining	
Burnished Custom Masonry Clnr	1:2	1	1	1	0	
Burnished Custom Masonry Clnr	1:3	1	1	1	0	
Substrate: (H) Split-face CMU	Pigment (Color: SIS S+	R Purple Haze			
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	1	1	1	0	
Custom Masonry Cleaner	1:6	1	1	1	0	
Substrate: (I) Smooth-face CMU	Pigment	Color: Smooth	S+R Red			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining	
Burnished Custom Masonry Clnr	1:2	1	1	1	0	
Burnished Custom Masonry Clnr	1:3	1	1	1	0	
Substrate: (J) Split-face CMU	Pigment	Pigment Color: SIS S+R AZ. Red				
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	1	1	0	
Substrate: (K) Smooth-face	Pigment	Color: SIS Me	d. Wt. D/B Brown			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining	
Burnished Custom Masonry Clnr	1:2	1	1	1	0	
Burnished Custom Masonry Clnr	1:3	1	1	1	0	
Substrate: (L) Split-face CMU	Pigment Color: SIS Med. Wt. D/B Golden Rod					
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	1	1	1	0	
Custom Masonry Cleaner	1:6	1	1	1	0	

Scale used for reporting results of all categories

0 – no change 3 – heavy 4 – excessive

2 – moderate





Page 12

Substrate: (M) Smooth-face CMU	Pigment Color: Smooth D/B Sedona Red				
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: (N) Split-face CMU	Pigment	Color: SIS D/E	3 S+R Sedona Red		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	1	1	1	0
Custom Masonry Cleaner	1:4	1	1	1	0
Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: (O) Smooth-face CMU	Pigment	Color: Smooth	S+R Purple Haze		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
Substrate: (P) Split-face CMU	Pigment	Color: Med. W	/t. Papago Red		
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	1	1	1	0
Custom Masonry Cleaner	1:4	1	1	1	0
Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: (Q) Smooth-face	Pigment Color: Smooth Med. Wt. Brown				
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0

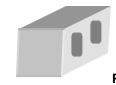
Scale used for reporting results of all categories

0 – no change 1 – slight 3 – heavy

2 – moderate

4 – excessive





Page 13

CONCLUSIONS – Surface Alterations

Based on test data, all dilutions of Sure Klean[®] Custom Masonry Cleaner tested affected the split-face CMUs in a similar manner, removing slight to moderate concentrations of pigmented matrix from the CMUs, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

Sure Klean[®] Burnished Custom Masonry Cleaner tested affected the smooth-face CMUs in a similar manner, removing slight concentrations of pigmented matrix from the CMUs, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit.

NOTE: Refer to Attachments #1 for Surface Alteration photographs.

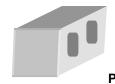
RECOMMENDATIONS – Surface Alterations

Based upon laboratory evaluations, Sure Klean[®] Custom Masonry Cleaner in all dilutions are recommended for job-site testing on the split-face and Sure Klean[®] Burnished Custom Masonry Cleaner in all dilutions are recommended for job-site testing on the smooth-face CMUs submitted by Yavapai Block Company, Inc. Prescott, AZ.

They are effective in removing excess mortar and assist in improving the color and uniformity of these CMUs. 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 new construction cleaning product and procedures for a particular project. See product literature for additional application and product information.





Page 14

<u>SECTION C – PROTECTIVE WATER REPELLENTS</u>

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[®] 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 job site. This solvent-free blend of silanes and oligomeric alkoxysiloxanes mixes easily with water to produce a penetrating water-repellent ideal for application to dense or porous masonry surfaces.

SAMPLE PREPARATION – Protective Water Repellents

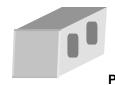
The submitted blocks were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. The treatment method consisted of a wet-on-wet brush application. All treatments were allowed to cure at least 72 hours prior to testing.

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.





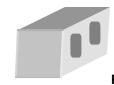
Page 15

TEST RESULTS – Protective Water Repellents

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

	RESULT
(A) Smooth-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	58 mph
Siloxane WB Concentrate (1:9)	57 mph
(D) Creath for CMII	
(B) Smooth-face CMU	40
Untreated Control	<40 mph
Custom Masonry Sealer	<40 mph
Custom Masonry Sealer (2 applications)	<40 mph
Siloxane WB Concentrate (1:9)	<40 mph
(C) Split-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	<40 mph
Custom Masonry Sealer (2 applications)	<40 mph
Siloxane WB Concentrate (1:9)	<40 mph
(D) Split-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	<40 mph
Custom Masonry Sealer (2 applications)	50 mph
Siloxane WB Concentrate (1:9)	53 mph
(E) Smooth-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	
Custom Masonry Sealer (2 applications)	
Siloxane WB Concentrate (1:9)	

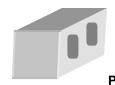




Page 16

(F) Split-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	<40 mph
Custom Masonry Sealer (2 applications)	<40 mph
Siloxane WB Concentrate (1:9)	<40 mph
(G) Smooth-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	<40 mph
Custom Masonry Sealer (2 applications)	<40 mph
Siloxane WB Concentrate (1:9)	<40 mph
(H) Split-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	<40 mph
Custom Masonry Sealer (2 applications)	57 mph
Siloxane WB Concentrate (1:9)	<40 mph
(I) Smooth-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	58 mph
Siloxane WB Concentrate (1:9)	57 mph
(J) Split-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	57 mph
Siloxane WB Concentrate (1:9)	55 mph
(K) Smooth-face CMU	
Untreated Control	<40 mph
Custom Masonry Sealer	59 mph
Siloxane WB Concentrate (1:9)	57 mph





Page 17

(L) Split-face CMU			
Untreated Control	<40 mph		
Custom Masonry Sealer	<40 mph		
Custom Masonry Sealer (2 applications)	<40 mph		
Siloxane WB Concentrate (1:9)	<40 mph		
(M) Smooth-face CMU			
Untreated Control	<40 mph		
Custom Masonry Sealer	<40 mph		
Custom Masonry Sealer (2 applications)	<40 mph		
Siloxane WB Concentrate (1:9)	<40 mph		
(N) Split-face CMU			
Untreated Control	<40 mph		
Custom Masonry Sealer	55 mph		
Siloxane WB Concentrate (1:9)	<40 mph		
(O) Smooth-face CMU			
Untreated Control	<40 mph		
Custom Masonry Sealer	57 mph		
Siloxane WB Concentrate (1:9)	54 mph		
(P) Split-face CMU			
Untreated Control	<40 mph		
Custom Masonry Sealer	<40 mph		
Siloxane WB Concentrate (1:9)	<40 mph		
(Q) Smooth-face CMU			
Untreated Control	<40 mph		
Custom Masonry Sealer	50 mph		
Siloxane WB Concentrate (1:9)	57 mph		





Page 18

CONCLUSIONS – Protective Water Repellents

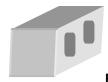
Based upon laboratory evaluations, Sure Klean[®] Custom Masonry Sealer applied in either 1 or 2 applications was able to provide water repellency to 10 of the 17 types of CMUs submitted. Sure Klean[®] Weather Seal Siloxane WB Concentrate diluted with nine parts fresh water was able to provided above average water repellency to 6 of the 17 types of CMUs submitted. Neither of the water repellents tested were able to provide water repellency to 7 (see chart below) of the 17 types of CMUs submitted by Yavapai Block Company, Inc., Prescott, AZ.

RECOMMENDATIONS – Protective Water Repellents

Based on evaluations the following recommendations are made for job-site testing on the CMUs submitted by Yavapai Block Company, Inc., Prescott, AZ.

SUBSTRATE	Sure Klean [®] Custom Masonry Sealer	Sure Klean [®] Custom Masonry Sealer (2 applications)	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9)
(A) S+R Grey	Yes		Yes
(B) Med. Wt. Grey	No	No	No
(C) SIS Med. Grey	No	Yes	No
(D) SIS D/B Grey	No	Yes	Yes
(E) Med. Wt. Smooth Brown = Geo Buff/ w/ D/B	No	No	No
(F) SIS Med. Wt. Purple Haze	No	No	No
(G) Smooth Med. Wt. Sedona Red	No	No	No
(H) SIS S+R Purple Haze	No	Yes	No
(I) Smooth S+R Red	Yes		Yes
(J) SIS S+R AZ. Red	Yes		Yes
(K) SIS Med. Wt. D/B Brown	Yes		Yes
(L) SIS Med. Wt. D/B Golden Rod	No	No	No
(M) SIS D/B Sedona Red	No	No	No
(N) SIS D/B S+R Sedona Red	No	Yes	No
(O) Smooth S+R Purple Haze	Yes		Yes
(P) SIS Med. Wt. Papago Red	No	No	No
(Q) Smooth Med. Wt. Brown	No	Yes	No





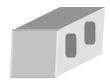
Page 19

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.

Krista Walker R & D Technician

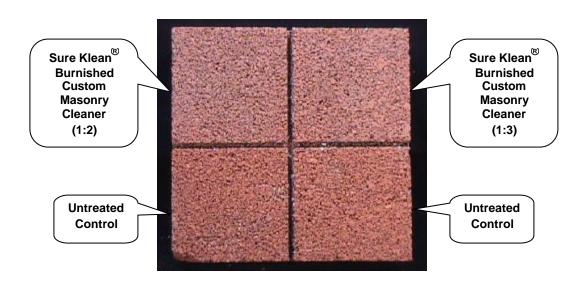
CMN/KW/csm



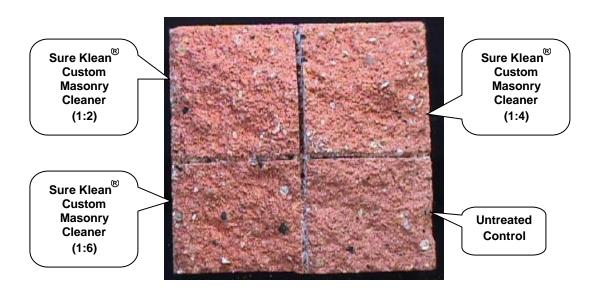


Attachment # 1 - Surface Alterations

(I) Smooth S+R Red



(N) SIS D/B S+R Sedona Red





Laboratory Report

Block Program Evaluation

Yavapai Block Company, Inc. Prescott, AZ

Project No. 0201-16 BP

Prepared For:

John Roeser

Yavapai Block Company, Inc. 1339 Masonry Way Prescott, AZ 86301

Prepared By:



PROSOCO, Inc. February 2002