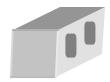


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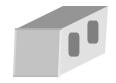
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Technical Services TECH Note RILEM Tube Test Procedures Product Data literature for all products evaluated





PROSOCO, Inc.

Page 2

FOR: Tom Finch

Gina Adams cc: Mike Davis

Richard Mirowski Paul Tessier Stephen Dean

SUBJECT: RCP Block & Brick

Lemon Grove, CA

DATE: August 22, 2002

PROJECT: 0207-16 PTP

SAMPLES SUBMITTED: Nineteen types of block in various colors. Faces only submitted.

	<u>Block</u>	<u>Color</u>	<u>Size</u>
(3) Precision (Smooth-face) CMU's	"La Paz" (tan)	16" x 8" x 1"
(3) Precision (Smooth-face) CMU's	"Natural" (gray)	16" x 8" x 1"
(3) Precision (Smooth-face) CMU's	"Mission" (brown)	16" x 8" x 1"
(3) Precision (Smooth-face) CMU's	"Otay Ranch" (brown)	16" x 8" x 1"
(3) Precision (Smooth-face) CMU's	"Terracotta" (orange)	16" x 8" x 1"
(3) Precision (Smooth-face) CMU's	"Charcoal" (gray)	16" x 8" x 1"
(3) Split-face CMU's	"La Paz" (tan)	16" x 8" x 1"
(3) Split-face CMU's	"Natural" (gray)	16" x 8" x 1"
(3) Split-face CMU's	"Mission" (brown)	16" x 8" x 1"
(3) Split-face CMU's	"Otay Ranch" (brown)	16" x 8" x 1"
(3) Split-face CMU's	"Terracotta" (orange)	16" x 8" x 1"
(3) Split-face CMU's	"Charcoal" (gray)	16" x 8" x 1"
(3) Regalstone (Ground-face) CMU's	"Green Mist" (green)	16" x 8" x 1"
(3) Regalstone (Ground-face) CMU's	"White" (white)	16" x 8" x 1"
(3) Regalstone (Ground-face) CMU's	"Natural with Bird's Eye" (gray)	16" x 8" x 1"
(3) Regalstone (Ground-face) CMU's	"Castle Grey" (gray)	16" x 8" x 1"
(3) Slump CMU's	"Mission" (brown)	16" x 6" x 1"
(3) Slump CMU's	"Adobe" (buff)	16" x 6" x 1"
(3) Slump CMU's	"Natural" (buff)	16" x 6" x 1"

^{*}NOTE: For the purpose of this report, "Precision" will be called Smooth-face and "Regalstone" will be called Ground-face.

Submitted by: Tom Finch & Gina Adams, RCP Block & Brick





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PURPOSE OF TESTING:

Six integrally colored split-face CMU's, six integrally colored smooth-face CMU's, four integrally colored ground-face CMU's, and three slump CMU's 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 the split-face, smooth-face, and slump CMU's. Sure Klean[®] Burnished Custom Masonry Cleaner was evaluated for removal of laboratory-applied mortar to the ground-face CMU's.

To simulate new construction soiling, all CMU's are placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall are positioned on top of each CMU and filled with a wet mixture of 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 and Sure Klean[®] Burnished 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 (CMU's) frequently have high amounts of pigments concentrated on the surface of the cured concrete unit. Variation of surface pigment concentrations from one CMU to the next creates a blotchy appearance in the completed wall. Allowed to remain on the surface of the CMU, the weakly bound pigment will weather and streak, further detracting from the appearance of the completed CMU wall.

In addition to removing excess mortar and construction related soiling, the goal of any cleaning operation undertaken on 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 Siloxane WB Concentrate were evaluated for their ability to provide water repellency to the submitted samples.





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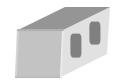
PRODUCTS EVALUATED FOR CLEANING AND COLOR UNIFORMITY

Block Type	Product	Dilution
All Split-face, Smooth-face, and Slump CMU's submitted	Sure Klean [®] Custom Masonry Cleaner	1:2, 1:4, 1:6
Block Type	Product	Dilution
All Crowned force CMI I'c	Sure Klean [®] Custom Masonry Cleaner	1:6
All Ground-face CMU's	Sure Klean [®] Burnished Custom Masonry Cleaner	1:2, 1:3

WATER REPELLENT PRODUCTS EVALUATED

Block Type	Product	Dilution
All submitted CMU's	Sure Klean [®] Weather Seal Siloxane WB Concentrate	1:9, 1:14





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SECTION A - CLEANING INTEGRALLY COLORED CMU's

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, 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.





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TEST RESULTS - Cleaning

% removal

	"La Paz" Smooth-fa	ce CMU		
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%
	"Natural" Smooth-fa	nce CMU		
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	95%	95%	95%
	"Mission" Smooth-fa	ace CMII		
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	95%	95%	95%
	"Otay Ranch" Smooth	food CMII		
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	95%	95%	95%
	" "			
Donadorat	"Terracotta" Smooth-		7 .1	44 -1
Product	4.0	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 "Charcoal" Smooth-f	100%	100%	100%
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%





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TEST RESULTS - Cleaning Continued

% removal

61	La Paz" Split-face	e CMU		
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%
	Natural" 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%
"	Mission" Split-fac	e CMU		
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%
				•
	ay Ranch" Split-fa			1
Product		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%
"Т.	erracotta" Split-fa	co CMII		
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%
,	-			
	harcoal" Split-fac	ce CMU		
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%
"O	on Mint" Crown d	face CMII		
Product	en Mist" Ground- Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:6	100%	100%	100%
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
			100%	
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
"V	Vhite" Ground-fac	ce CMU		
Product	Dilution	3 day	7 day	14 day
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%





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TEST RESULTS - Cleaning Continued

% removal

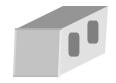
"Natural W	/ith Bird's Eye" G	round-face CM	U	
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:6	100%	100%	100%
Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
"Cas	tle Grey" Ground	face CMU		
Product	Dilution	3 day	7 day	14 day
Custom 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%
	"Mission" Slump	CMU		
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%
	"Adobe" Slump	CMU		
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%
	"Natural" Slump	CMU		
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 and Sure Klean[®] 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.





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RECOMMENDED PRODUCTS AND DILUTIONS - CLEANING

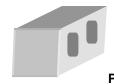
Recommendations for cleaning for each type of CMU submitted by RCP Block & Brick, Lemon Grove, CA are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar.

Block	Color	New Construction Cleaning (Type S mortar, 14 day)
	"La Paz"	Custom Masonry Cleaner (1:6)
	"Natural"	Custom Masonry Cleaner (1:4)
Smooth-face CMU's	"Mission"	Custom Masonry Cleaner (1:4)
Sillootifface Civio's	"Otay Ranch"	Custom Masonry Cleaner (1:4)
	"Terracotta"	Custom Masonry Cleaner (1:6)
	"Charcoal"	Custom Masonry Cleaner (1:6)
	"La Paz"	Custom Masonry Cleaner (1:6)
	"Natural"	Custom Masonry Cleaner (1:6)
Split-face CMU's	"Mission"	Custom Masonry Cleaner (1:6)
Spin-race Civio's	"Otay Ranch"	Custom Masonry Cleaner (1:6)
	"Terracotta"	Custom Masonry Cleaner (1:6)
	"Charcoal"	Custom Masonry Cleaner (1:6)
	"Green Mist"	Burnished Custom Masonry Cleaner (1:3)
	"White"	Burnished Custom Masonry Cleaner (1:3)
Ground-face CMU's	"Natural With Bird's Eye"	Burnished Custom Masonry Cleaner (1:3)
	"Castle Grey"	Burnished Custom Masonry Cleaner (1:3)
	"Mission"	Custom Masonry Cleaner (1:6)
Slump CMU's	"Adobe"	Custom Masonry Cleaner (1:6)
	"Natural"	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.





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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.

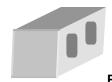
Sure Klean[®] Burnished Custom Masonry Cleaner – A general purpose, non-etching acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

TEST METHOD – Color Uniformity Testing:

Dilution ratios refer to mixtures of 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 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.





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TEST RESULTS – Color Uniformity

Substrate: Smooth-face CMU	Pigment Col	or: "La Paz"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	4
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	3
Substrate: Smooth-face CMU	Pigment Col	or: "Natural"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	4
Substrate: Smooth-face CMU	Pigment Col	or: "Mission"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	4
Custom Masonry Cleaner	1:6	4	3
Substrate: Smooth-face CMU	Pigment Cole	or: "Otay Ranch"	
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

Scale used for reporting results of both categories

0 – **Worst** match to through-body

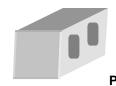
3 – **Good** match to through-body

1 – **Poor** match to through-body

4 – **Best** match to through-body

2 - **Fair** match to through-body





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TEST RESULTS – Color Uniformity Continued

Substrate: Smooth-face CMU	Pigment Col	or: "Terracotta"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-face CMU	Pigment Col	or: "Charcoal"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	2	2
Substrate: Split-face CMU	Pigment Col	or: "La Paz"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-face CMU	Pigment Col	or: "Natural"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-face CMU	Pigment Col	or: "Mission"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4

0 – **Worst** match to through-body

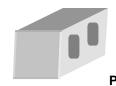
1 – **Poor** match to through-body

2 – **Fair** match to through-body

3 – **Good** match to through-body

4 - **Best** match to through-body





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TEST RESULTS – Color Uniformity Continued

Substrate: Split-face CMU	Pigment Co	lor: "Otay Ranch"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-face CMU	Pigment Co	lor: "Terracotta"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-face CMU	Pigment Co	lor: "Charcoal"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Ground-face CMU	Pigment Co	lor: "Green Mist"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:6	4	4
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Ground-face CMU	Pigment Co	or: "White"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:6	4	3
Burnished Custom Masonry Cleaner	1:2	3	4
Burnished Custom Masonry Cleaner	1:3	3	2

0 – **Worst** match to through-body

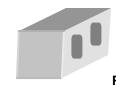
1 – **Poor** match to through-body

2 – **Fair** match to through-body

3 – **Good** match to through-body

4 - **Best** match to through-body





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TEST RESULTS – Color Uniformity Continued

Substrate: Ground-face CMU	Pigment Col	or: "Natural With Bird's Eye"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:6	3	3
Burnished Custom Masonry Cleaner	1:2	3	4
Burnished Custom Masonry Cleaner	1:3	4	3
Substrate: Ground-face CMU	Pigment Col	or: "Castle Grey"	
Product Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:6	4	4
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Slump CMU	Pigment Col	or: "Mission"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	3
Custom Masonry Cleaner	1:4	3	4
Custom Masonry Cleaner	1:6	4	2
Substrate: Slump CMU	Pigment Col	or: "Adobe"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Slump CMU	Pigment Col	or: "Natural"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	3
Custom Masonry Cleaner	1:6	4	4

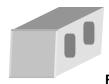
0 – **Worst** match to through-body

1 – **Poor** match to through-body

2 - **Fair** match to through-body

3 – **Good** match to through-body

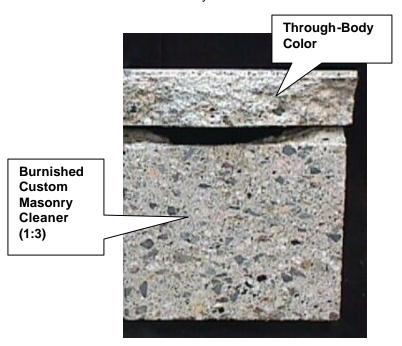
4 - **Best** match to through-body



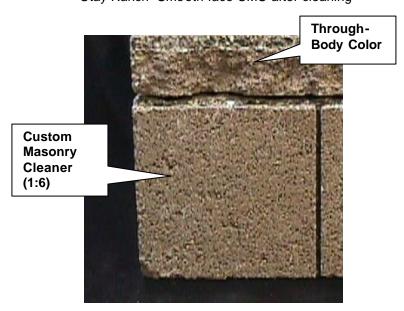
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PHOTOGRAPHS – Color Uniformity

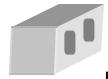
"Natural With Bird's Eye" Ground-face CMU after cleaning



"Otay Ranch" Smooth-face CMU after cleaning







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CONCLUSIONS: Color Uniformity:

All dilutions of Sure Klean[®] Custom Masonry Cleaner and Sure Klean[®] 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

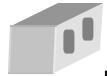
Recommendations for color uniformity for each type of CMU submitted by RCP Block & Brick, Lemon Grove, CA are provided in the chart below. Recommendations are based on the optimum dilution that provides the best color uniformity and the complete removal of mortar.

Block	Color	Color Uniformity
	"La Paz"	Custom Masonry Cleaner (1:6)
	"Natural"	Custom Masonry Cleaner (1:6)
Smooth-face CMU's	"Mission"	Custom Masonry Cleaner (1:6)
Smooth-race Civio's	"Otay Ranch"	Custom Masonry Cleaner (1:6)
	"Terracotta"	Custom Masonry Cleaner (1:6)
	"Charcoal"	Custom Masonry Cleaner (1:4)
	"La Paz"	Custom Masonry Cleaner (1:6)
	"Natural"	Custom Masonry Cleaner (1:6)
Split food CMI l'o	"Mission"	Custom Masonry Cleaner (1:6)
Split-face CMU's	"Otay Ranch"	Custom Masonry Cleaner (1:6)
	"Terracotta"	Custom Masonry Cleaner (1:6)
	"Charcoal"	Custom Masonry Cleaner (1:6)
	"Green Mist"	Custom Masonry Cleaner (1:6)
Ground-face CMU's	"White"	Custom Masonry Cleaner (1:6)
Ground-race Civio's	"Natural With Bird's Eye"	Burnished Custom Masonry Cleaner (1:2)
	"Castle Grey"	Custom Masonry Cleaner (1:6)
	"Mission"	Custom Masonry Cleaner (1:4)
Slump CMU's	"Adobe"	Custom Masonry Cleaner (1:6)
	"Natural"	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.





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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 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:

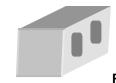
The submitted blocks were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. The treatment method consisted of a wet-on-wet brush application. All treatments were allowed to cure at least 3 days prior to testing.

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.





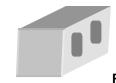
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TEST RESULTS - Protective Water Repellents:

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

	RESULTS
"La Paz" Smooth-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	58 mph
Siloxane WB Concentrate (1:14)	50 mph
"Natural" Smooth-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	57 mph
Siloxane WB Concentrate (1:14)	58 mph
"Mission" Smooth-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	57 mph
Siloxane WB Concentrate (1:14)	60 mph
"Otay Ranch" Smooth-fac	ce
Untreated Control	<40 mph
Siloxane WB Concentrate (1:9)	<40 mph
Siloxane WB Concentrate (1:14)	58 mph
"Terracotta" Smooth-fac	ce
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	60 mph
Siloxane WB Concentrate (1:14)	60 mph
"Charcoal" Smooth-fac	е
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	58 mph
Siloxane WB Concentrate (1:14)	59 mph





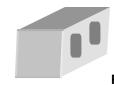
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TEST RESULTS - Protective Water Repellents:

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

	RESULTS
"La Paz" Split-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	47 mph
Siloxane WB Concentrate (1:14)	57 mph
"Natural" Split-face	
Untreated Control	<40 mph
Siloxane WB Concentrate (1:9)	<40 mph
Siloxane WB Concentrate (1:14)	58 mph
"Mission" Split-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	58 mph
Siloxane WB Concentrate (1:14)	<40 mph
"Otay Ranch" Split-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	<40 mph
Siloxane WB Concentrate (1:14)	58 mph
"Terracotta" Split-face	9
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	58 mph
Siloxane WB Concentrate (1:14)	54 mph
"Charcoal" Split-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	58 mph
Siloxane WB Concentrate (1:14)	50 mph





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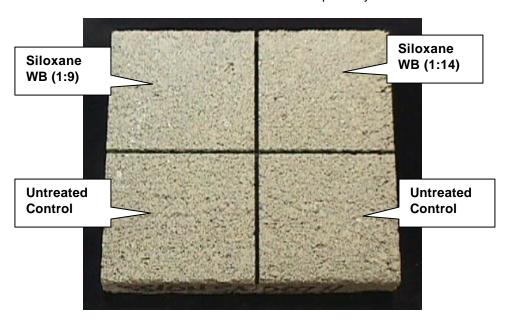
TEST RESULTS - Protective Water Repellents continued

	RESULTS
"Green Mist" Ground-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	60 mph
Siloxane WB Concentrate (1:14)	60 mph
"White" Ground-face	
Untreated Control	50 mph
Siloxane WB Concentrate (1:9)	60 mph
Siloxane WB Concentrate (1:14)	60 mph
"Natural With Bird's Eye" Ground-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	60 mph
Siloxane WB Concentrate (1:14)	60 mph
"Castle Grey" Ground-face	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	59 mph
Siloxane WB Concentrate (1:14)	59 mph
"Mission" Slump	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	52 mph
Siloxane WB Concentrate (1:14)	56 mph
"Adobe" Slump	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	56 mph
Siloxane WB Concentrate (1:14)	56 mph
"Natural" Slump	
Untreated Control	< 40 mph
Siloxane WB Concentrate (1:9)	54 mph
Siloxane WB Concentrate (1:14)	53 mph

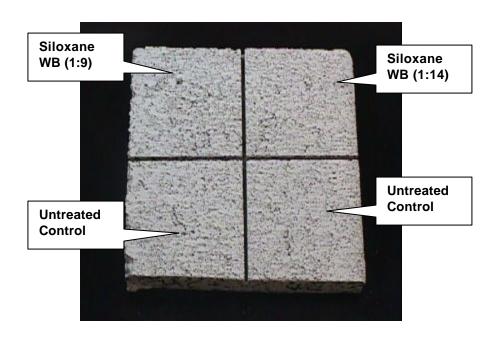
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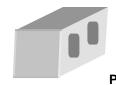
PHOTOGRAPHS – Protective Water Repellents

"Mission" Smooth-face CMU after water repellency treatment



"Natural" Smooth-face CMU after water repellency treatment





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CONCLUSIONS - Protective Water Repellents

Based upon laboratory evaluations, Sure Klean[®] Weather Seal Siloxane WB Concentrate diluted with either nine or fourteen parts fresh water provided above average water repellency to all submitted samples. Sure Klean[®] Weather Seal Siloxane WB Concentrate slightly enhanced the natural appearance of the CMU's.

RECOMMENDATIONS - PROTECTIVE WATER REPELLENTS

Recommendations for water repellency treatment for each type of CMU submitted by RCP Block & Brick, Lemon Grove, CA 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
"La Paz" Smooth-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Natural" Smooth-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Mission" Smooth-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Otay Ranch" Smooth-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:14)
"Terracotta" Smooth-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Charcoal" Smooth-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"La Paz" Split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:14)
"Natural" Split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:14)
"Mission" Split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9)
"Otay Ranch" Split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:14)
"Terracotta" Split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Charcoal" Split-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9)





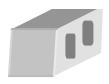
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Block Type	Water Repellents
"Green Mist" Ground-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"White" Ground-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Natural With Bird's Eye" Ground-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Castle Grey" Ground-face CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Mission" Slump CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Adobe" Slump CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)
"Natural" Slump CMU	Sure Klean [®] Weather Seal Siloxane WB Concentrate (1:9), (1:14)

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.

Courtney Williams Technical Analyst

CAW/



Laboratory Report

Pallet Tag Program Evaluation

RCP Block & Brick Lemon Grove, CA

Project No. 0207-16 PTP

Prepared For:

Tom Finch and Gina Adams RCP Block & Brick 8240 Broadway Lemon Grove, CA 91945

Prepared By:



PROSOCO, Inc. August 2002