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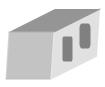
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ATTACHMENTS

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





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- FOR: Dan Leman cc: Brian Koenings John Bourne Steve Dean
- SUBJECT: Roanoke Concrete Products Roanoke, IL
- DATE: December 15, 2003

PROJECT: 0310-21 PTP

SAMPLES SUBMITTED: Eight types of concrete pavers, all with Dry Blok, four types of CMU's, all with Dry-Blok, and four types of concrete wedgies, all with Dry-Blok

Block	<u>Number</u>	<u>Color</u>	<u>Size</u>	
	4	"Grey"		
	4	"Black/Grey"		
	4	"Black/Red"		
Concerto Devices	4	"Charcoal"	0" × 4" × 0"	
Concrete Pavers	4	"Red"	8" x 4" x 2"	
	4	"Black/Copper"		
	4	"Black/Tan"		
	4	"Tan"		
	4	"RCL140072WR" (Beige)		
Split-face CMU's	4	"RC16045" (Red)	16" x 8" x 2"	
	4	"RC201WR" (Charcoal)	10 x 0 x 2	
Smooth-face CMU	4	"RCL5545" (Orange)		
	4	"Grey"		
Concrete Wedgies - Split-face	4	"Tan"		
Sides	4	"Charcoal"		
	4	"Brown"	5.25" x 6" x 8"	
	4	"Grey"	(Triangular)	
Concrete Wedgies - Smooth-	4	"Tan"		
face Tops	4	"Charcoal"		
	4	"Brown"		

Submitted by: Brian Koenings





PURPOSE OF TESTING:

Four integrally colored concrete blocks, eight concrete pavers, and four concrete wedgies, all 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 concrete masonry units (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 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.

4 – **Best** match to through-body

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
- 2 Fair match to through-body

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.

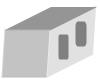
C. Protective Water Repellents - Sure Klean[®] Weather Seal Siloxane WB Concentrate, Sure Klean[®] Custom Masonry Sealer, Sure Klean[®] Paver Enhancer, Consolideck[®] Saltguard[®] WB, and Sure Klean[®] Weather Seal Siloxane PD were evaluated for their ability to provide water repellency to the submitted samples.

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

E. Stain Repellency – Stand Off[®] Stone, Tile & Masonry Protector and Stand Off[®] SLX100 Water & Oil Repellent were evaluated for their ability to provide stain repellency to the submitted samples.

F. Color Enhancement – Sure Klean[®] Paver Enhancer and Stand Off[®] Gloss 'N Guard were evaluated for their ability to provide color enhancement to the submitted samples.





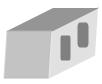
PRODUCTS EVALUATED FOR CLEANING AND COLOR UNIFORMITY

Block Type	Product	Dilution
All Submitted CMU's, Concrete Pavers, and	Sure Klean [®] Custom Masonry Cleaner	1:2, 1:4, 1:6
Concrete Wedgies	Sure Klean [®] Burnished Custom Masonry Cleaner	1:2, 1:3

WATER REPELLENT PRODUCTS EVALUATED

Block Type	Product	Dilution
	Sure Klean [®] Paver Enhancer	Concentrate
All Submitted Concrete Pavers and Concrete Wedgies	Consolideck [®] Saltguard [®] WB	Concentrate
	Sure Klean [®] Weather Seal Siloxane PD	Concentrate
	Sure Klean [®] Custom Masonry Sealer	Concentrate
All Submitted CMU's	Sure Klean [®] Weather Seal Siloxane WB Concentrate	1:9, 1:14
	Sure Klean [®] Weather Seal Siloxane PD	Concentrate





GRAFFITI CONTROL PRODUCTS EVALUATED

Block Type	Product
All submitted CMU's	Sure Klean [®] Weather Seal Blok-Guard [®] & Graffiti Control

GRAFFITI REMOVAL PRODUCTS EVALUATED

Block Type	Product
All submitted CMU's	Sure Klean [®] Fast Acting Stripper
All submitted CMO's	Defacer Eraser [®] Graffiti Wipe

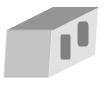
COLOR ENHANCEMENT PRODUCTS EVALUATED

Block Type	Product	
All submitted Concrete Pavers and Concrete	Sure Klean [®] Paver Enhancer	
Wedgies	Stand Off [®] Gloss 'N Guard	

STAIN REPELLENCY PRODUCTS EVALUATED

Block Type	Product
All submitted Concrete Pavers and Concrete	Stand Off [®] Stone, Tile, and Masonry Protector
Wedgies	Stand Off [®] SLX100 Water & Oil Repellency





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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 – Removes common construction and atmospheric staining from custom masonry and other architectural concrete surfaces. This general-purpose, nonetching acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Burnished Custom Masonry Cleaner adds depth to colors and brightens white matrices and exposed aggregate.

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 the cleaner at the appropriate dilutions.
- 4. Reapply the product 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.



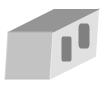


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TEST RESULTS – Cleaning

	"Grey" Concrete Paver	
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	97%
Custom Masonry Cleaner	1:4	97%
Custom Masonry Cleaner	1:6	97%
Burnished Custom Masonry Cleaner	1:2	85%
Burnished Custom Masonry Cleaner	1:3	85%
"Bl	ack/Grey" Concrete Pave	r
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	97%
Custom Masonry Cleaner	1:4	97%
Custom Masonry Cleaner	1:6	97%
Burnished Custom Masonry Cleaner	1:2	85%
Burnished Custom Masonry Cleaner	1:3	85%
"BI	ack/Red" Concrete Pave	r
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	100%
Custom Masonry Cleaner	1:4	100%
Custom Masonry Cleaner	1:6	100%
Custom Masonry Cleaner	1:2	85%
Custom Masonry Cleaner	1:3	85%
"C	harcoal" Concrete Paver	,
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	100%
Custom Masonry Cleaner	1:4	100%
Custom Masonry Cleaner	1:6	98%
Burnished Custom Masonry Cleaner	1:2	85%
Burnished Custom Masonry Cleaner	1:3	85%
	"Red" Concrete Paver	
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	100%
Custom Masonry Cleaner	1:4	100%
Custom Masonry Cleaner	1:6	98%
Burnished Custom Masonry Cleaner	1:2	95%
Burnished Custom Masonry Cleaner	1:3	90%





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TEST RESULTS – Cleaning (continued)

"Bla	ck/Copper" Concrete Pav	ver
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	98%
Custom Masonry Cleaner	1:4	98%
Custom Masonry Cleaner	1:6	98%
Burnished Custom Masonry Cleaner	1:2	85%
Burnished Custom Masonry Cleaner	1:3	85%
"В	lack/Tan" Concrete Pave	r
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	100%
Custom Masonry Cleaner	1:4	100%
Custom Masonry Cleaner	1:6	100%
Burnished Custom Masonry Cleaner	1:2	80%
Burnished Custom Masonry Cleaner	1:3	80%
	"Tan" Concrete Paver	
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	100%
Custom Masonry Cleaner	1:4	98%
Custom Masonry Cleaner	1:6	98%
Burnished Custom Masonry Cleaner	1:2	90%
Burnished Custom Masonry Cleaner	1:3	90%
"Gro	ey" Wedgie, Split-face Sid	le
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	100%
Custom Masonry Cleaner	1:4	98%
Custom Masonry Cleaner	1:6	100%
Burnished Custom Masonry Cleaner	1:2	85%
Burnished Custom Masonry Cleaner	1:3	85%
	n" Wedgie, Split-face Sid	e
Product	Dilution	14 day
Custom Masonry Cleaner	1:2	100%
Custom Masonry Cleaner	1:4	100%
Custom Masonry Cleaner	1:6	100%
Burnished Custom Masonry Cleaner	1:2	80%
Burnished Custom Masonry Cleaner	1:3	80%

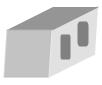




TEST RESULTS – Cleaning (continued)

"Chare	coal" Wedgie, Split-face S	Side	
Product	Dilution	14 day	
Custom Masonry Cleaner	1:2	98%	
Custom Masonry Cleaner	1:4	98%	
Custom Masonry Cleaner	1:6	98%	
Burnished Custom Masonry Cleaner	1:2	80%	
Burnished Custom Masonry Cleaner	1:3	80%	
"Bro	wn" Wedgie, Split-face Si	de	
Product	Dilution	14 day	
Custom Masonry Cleaner	1:2	100%	
Custom Masonry Cleaner	1:4	100%	
Custom Masonry Cleaner	1:6	100%	
Burnished Custom Masonry Cleaner	1:2	80%	
Burnished Custom Masonry Cleaner	1:3	80%	
"Grey	/" Wedgie, Smooth-face 1	ор	
Product	Dilution	14 day	
Custom Masonry Cleaner	1:2	100%	
Custom Masonry Cleaner	1:4	100%	
Custom Masonry Cleaner	1:6	100%	
Burnished Custom Masonry Cleaner	1:2	95%	
Burnished Custom Masonry Cleaner	1:3	95%	
"Tan	" Wedgie, Smooth-face T	ор	
Product	Dilution	14 day	
Custom Masonry Cleaner	1:2	98%	
Custom Masonry Cleaner	1:4	98%	
Custom Masonry Cleaner	1:6	98%	
Burnished Custom Masonry Cleaner	1:2	98%	
Burnished Custom Masonry Cleaner	1:3	98%	
"Charco	oal" Wedgie, Smooth-face	э Тор	
Product	Dilution	14 day	
Custom Masonry Cleaner	1:2	98%	
Custom Masonry Cleaner	1:4	95%	
Custom Masonry Cleaner	1:6	98%	
Burnished Custom Masonry Cleaner	1:2	95%	





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TEST RESULTS – Cleaning (continued)

"Brow	n" Wedgie, Smoo	th-face Top		
Product	Dilution		14 day	
Custom Masonry Cleaner	1:2		100%	
Custom Masonry Cleaner	1:4		100%	
Custom Masonry Cleaner	1:6		100%	
Burnished Custom Masonry Cleaner	1:2		95%	
Burnished Custom Masonry Cleaner	1:3		95%	
"D	C201WR", Charco			
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	95%	100%
Custom Masonry Cleaner	1:6	95%	100%	100%
Burnished Custom Masonry Cleaner	1:2	<u> </u>	85%	85%
Burnished Custom Masonry Cleaner	1:2	<u> </u>	85%	85%
	1.3	00 /0	00%	0070
	"RC16045", Red	СМИ		
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	98%
Custom Masonry Cleaner	1:4	100%	100%	98%
Custom Masonry Cleaner	1:6	100%	100%	98%
Burnished Custom Masonry Cleaner	1:2	85%	95%	90%
Burnished Custom Masonry Cleaner	1:3	90%	95%	90%
"RC	CL140072WR", Be	ige CMU		
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	98%	98%	98%
Custom Masonry Cleaner	1:4	98%	98%	98%
Custom Masonry Cleaner	1:6	98%	98%	98%
Burnished Custom Masonry Cleaner	1:2	90%	85%	90%
Burnished Custom Masonry Cleaner	1:3	90%	85%	90%
	RCL5545", Orang	e CMU		
Product	Dilution	3 day	7 day	14 day
	1:2	100%	100%	98%
Custom Masonry Cleaner			100%	98%
Custom Masonry Cleaner Custom Masonry Cleaner	1:4	100%	100%	98% 98%
Custom Masonry Cleaner			100% 100% 85%	98% 98% 95%

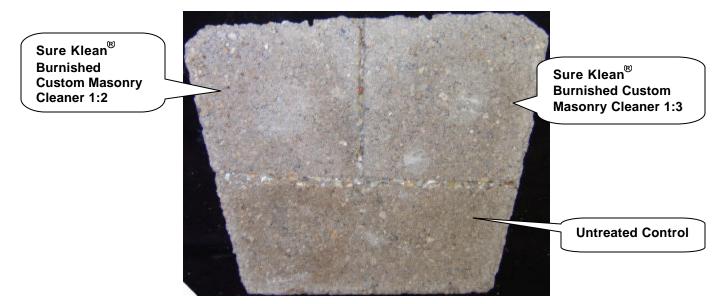




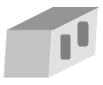
PHOTOGRAPHS- Cleaning



"Grey" Concrete Wedgie; Smooth-Face Top; 14 Day Cleaning







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CONCLUSIONS - Cleaning

Based on the test data, all of the submitted samples were efficiently cleaned with a dilution of Sure Klean[®] Custom Masonry Cleaner or Sure Klean[®] Burnished Custom Masonry Cleaner. Use higher concentrations and surface agitation to maximize aggregate exposure. Use low concentration and surface agitation to minimize aggregate exposure.

RECOMMENDED PRODUCTS AND DILUTIONS - CLEANING

Recommendations for cleaning for each type of CMU submitted by Roanoke Concrete Products, Roanoke, IL, are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar.

Block	New Construction Cleaning (Type S mortar, 14 day cleaning)
"RC201WR" (Charcoal) and "RC16045" (Red) CMU's	Sure Klean [®] Custom Masonry Cleaner (1:4)
"Red" Concrete Paver	Sure Klean [®] Burnished Custom Masonry Cleaner (1:2)
All Other Submitted CMU's All Other Submitted Concrete Pavers All Submitted Concrete Wedgies	Sure Klean [®] 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. Pressure rinsing equipment providing at least 400 psi at 4-6 gpm delivered though a 15-40 degree fan spray often produces best cleaning results.

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





SECTION B - COLOR UNIFORMITY

DESCRIPTION OF PRODUCTS EVALUATED – Color Uniformity:

Sure Klean[®] Custom Masonry Cleaner – A general purpose, concentrated acidic cleaner for most custom masonry and colored concrete. Removes concrete splashes, excess mortar, mud, heavy efflorescence and surface soiling, leaving the masonry clean and uniform with no acid burning or streaking. Liquid concentrate for dilution with 2-6 parts water. Apply by brush or low-pressure spray.

Sure Klean[®] **Burnished Custom Masonry Cleaner** – Removes common construction and atmospheric staining from custom masonry and other architectural concrete surfaces. This general-purpose, nonetching acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Burnished Custom Masonry Cleaner adds depth to colors and brightens white matrices and exposed aggregate.

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 at the appropriate dilutions.
- 4. Reapply the product and moderately agitate with a brush.
- 5. Pressure rinse thoroughly.*
- 6. Allow the sample to dry for at least 18 hours and visually examine.
- 7. Break the sample in half and compare the through-body surfaces to the cleaned surfaces for the best match.

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





TEST RESULTS – Color Uniformity

Substrate: Concrete Paver	Pigment Col	or: "Grey"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Paver	Pigment Col	or: "Black/Grey"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Paver	Pigment Col	or: "Black/Red"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Paver	Pigment Col	or: "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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2

Scale used for reporting results of both categories

0 – **Worst** match to through-body

- 1 Poor match to through-body
- 3 Good match to through-body
 - 4 Best match to through-body
- 2 Fair match to through-body





TEST RESULTS- Color Uniformity Continued

Substrate: Concrete Paver	Pigment Col	or: "Red"	
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	3	3
Burnished Custom Masonry Cleaner	1:2	4	4
Burnished Custom Masonry Cleaner	1:3	3	3
Substrate: Concrete Paver	Pigment Col	or: "Black/Copper"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Paver	Pigment Col	or: "Black/Tan"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Paver	Pigment Col	or: "Tan"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2

- 0 **Worst** match to through-body
- 1 **Poor** match to through-body
- 3 Good match to through-body
- 4 **Best** match to through-body
- 2 Fair match to through-body
- PROSOCO, Inc. 3741 Greenway Circle Lawrence, Kansas 66046 (785) 865-4200 Fax: (785) 830-9176





TEST RESULTS- Color Uniformity Continued

Substrate: Concrete Wedgie, Split-face Side	e Pigment Color: "Grey"		
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	3
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Wedgie, Split-face Side	Pigment	Color: "Tan"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Wedgie, Split-face Side	Pigment	Color: "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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	4	4
Substrate: Concrete Wedgie, Split-face Side	Pigment Color: "Brown"		
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
	1:2	3	3
Burnished Custom Masonry Cleaner	1.2	5	0

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





TEST RESULTS- Color Uniformity Continued

Substrate: Concrete Wedgie, Smooth-face Top	Pigment	Color: "Grey"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Wedgie, Smooth-face Top	Pigment	Color: "Tan"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Wedgie, Smooth-face Top	Pigment	Color: "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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Concrete Wedgie, Smooth-face Top	Pigment	Color: "Brown"	
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
Burnished Custom Masonry Cleaner	1:2	3	3
	1:3	2	2

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





TEST RESULTS- Color Uniformity Continued

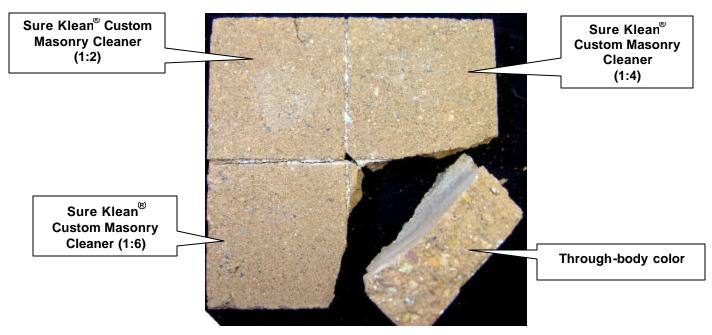
Substrate: CMU	Pigment Col	or: "RC201WR" (Charcoal)	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	1	1
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	3	3
Burnished Custom Masonry Cleaner	1:2	4	4
Burnished Custom Masonry Cleaner	1:3	3	3
Substrate: Concrete Brick	Pigment Col	or: "RC16045" (Red)	
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	3	3
Burnished Custom Masonry Cleaner	1:2	4	4
Burnished Custom Masonry Cleaner	1:3	3	3
Substrate: Concrete Brick	Pigment Col	or: "RCL140072WR" (Light T	an)
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2
Substrate: Smooth-face CMU	Pigment Col	or: "RCL5545" (Orange)	
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
Burnished Custom Masonry Cleaner	1:2	3	3
Burnished Custom Masonry Cleaner	1:3	2	2

- 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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PHOTOGRAPHS – Color Uniformity



"RCL5545" (Orange); Through- Body Comparison





CONCLUSIONS: Color Uniformity

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 Roanoke Concrete Products, Roanoke, IL are provided in the chart below. Recommendations are based on the optimum dilution that provides the best color uniformity.

Block	Color Uniformity
"RC201WR" (Charcoal) and "RC16045" (Red) CMU's	Sure Klean [®] Custom Masonry Cleaner (1:4)
"Red" Concrete Paver	Sure Klean [®] Burnished Custom Masonry Cleaner (1:2)
All Other Submitted CMU's All Other Submitted Concrete Pavers All Submitted Concrete Wedgies	Sure Klean [®] 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. Pressure rinsing equipment providing at least 400 psi at 4-6 gpm delivered though a 15-40 degree fan spray often produces best cleaning results.

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





SECTION 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.

Sure Klean[®] Custom Masonry Sealer - A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, architectural concrete block, precast concrete, wood and porous masonry. Custom Masonry Sealer penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering.

Sure Klean[®] Paver Enhancer - A solvent-based blend of high-quality siloxanes modified to provide excellent water repellency and color enhancement to interlocking concrete, fired clay, porous tile and many types of natural stone surfaces. Paver Enhancer penetrates and reacts with the surface to form a chemical bond, providing long-term durability, alkali resistance and superior breathability.

Consolideck[®] Saltguard[®] WB – A ready-to-use water-based, VOC compliant silane/siloxane water repellent and "chloride screen" for the protection of concrete and masonry surfaces. Saltguard[®] WB penetrates more deeply than conventional water- or solvent-based water repellents. Low odor and alkaline stable, Saltguard[®] WB is ideal for field or in-plant application to concrete and most masonry surfaces. Saltguard[®] WB protects horizontal and vertical surfaces from moisture intrusion and chemical attack of chloride salts.

Sure Klean[®] Weather Seal Siloxane PD – A ready-to-use, water-based silane/siloxane water repellent for concrete, GFRC, and most masonry and stucco surfaces. Siloxane PD penetrates more deeply than conventional water repellents. It helps masonry resist cracking, spalling, staining and other damage related to water intrusion. Low odor and alkaline stable, Siloxane PD is ideal for field and in-plant application.

SAMPLE PREPARATION - Protective Water Repellents:

The submitted blocks were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. All products were applied in accordance with the recommendations in the PROSOCO, Inc. product guide. All treatments were allowed to cure in accordance with the recommendations in the PROSOCO, Inc. product guide.





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TEST METHODS - Protective Water Repellents:

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

The water absorption tube test simulating wind driven rain conditions was performed. This test simulates 60 mile per hour wind driven rain conditions for a period of 20 minutes. See Technical Services TECH Note RILEM Tube Test Procedures.

TEST RESULTS - Protective Water Repellents:

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

	RESULTS
"Grey" Concrete Paver	
Untreated Control	< 40 mph
Paver Enhancer	58 mph
Saltguard WB	< 40 mph
Weather Seal Siloxane PD	55 mph
"Black/Grey" Concrete Pave	er
Untreated Control	< 40 mph
Paver Enhancer	58 mph
Saltguard WB	53 mph
Weather Seal Siloxane PD	58 mph
"Black/Red" Concrete Pave	r
Untreated Control	55 mph
Paver Enhancer	60 mph
Saltguard WB	56 mph
Weather Seal Siloxane PD	58 mph
"Charcoal" Concrete Paver	r
Untreated Control	< 40 mph
Paver Enhancer	59 mph
Saltguard WB	< 40 mph
Weather Seal Siloxane PD	58 mph
"Red" Concrete Paver	
Untreated Control	53 mph
Siloxane WB Concentrate (1:9)	60 mph
Saltguard WB	58 mph
Weather Seal Siloxane PD	59 mph

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Results "Black/Copper" Concrete Paver < 40 mph Untreated Control Paver Enhancer 59 mph Saltguard WB 58 mph Weather Seal Siloxane PD < 40 mph "Black/Tan" Concrete Paver **Untreated Control** < 40 mph Paver Enhancer 60 mph Saltguard WB 53 mph Weather Seal Siloxane PD 60 mph "Tan" Concrete Paver Untreated Control < 40 mph Paver Enhancer 57 mph Saltguard WB 60 mph Weather Seal Siloxane PD 57 mph "Grey" Concrete Wedgie, Split-face Side Untreated Control < 40 mph Paver Enhancer 58 mph Saltguard WB < 40 mph "Tan" Concrete Wedgie, Split-face Side Untreated Control < 40 mph Paver Enhancer 59 mph Saltguard WB < 40 mph "Charcoal" Concrete Wedgie, Split-face Side Untreated Control < 40 mph Paver Enhancer 58 mph Saltguard WB < 40 mph





"Brown" Concrete Wedgie, Split-face Side Untreated Control < 40 mph Paver Enhancer 58 mph Saltguard WB < 40 mph "Grey" Concrete Wedgie, Smooth-face Top Untreated Control < 40 mph Paver Enhancer 59 mph Saltguard WB < 40 mph "Tan" Concrete Wedgie, Smooth-face Top Untreated Control < 40 mph Paver Enhancer 59 mph Saltguard WB < 40 mph "Charcoal" Concrete Wedgie, Smooth-face Top **Untreated Control** < 40 mph Paver Enhancer 59 mph Saltguard WB < 40 mph "Brown" Concrete Wedgie, Smooth-face Top **Untreated Control** < 40 mph Paver Enhancer 59 mph Saltguard WB < 40 mph "RC16045" (Red) CMU Untreated Control < 40 mph **Custom Masonry Sealer** 60 mph Weather Seal Siloxane WB 1:9 59 mph Weather Seal Siloxane WB 1:14 54 mph Weather Seal Siloxane PD 57 mph





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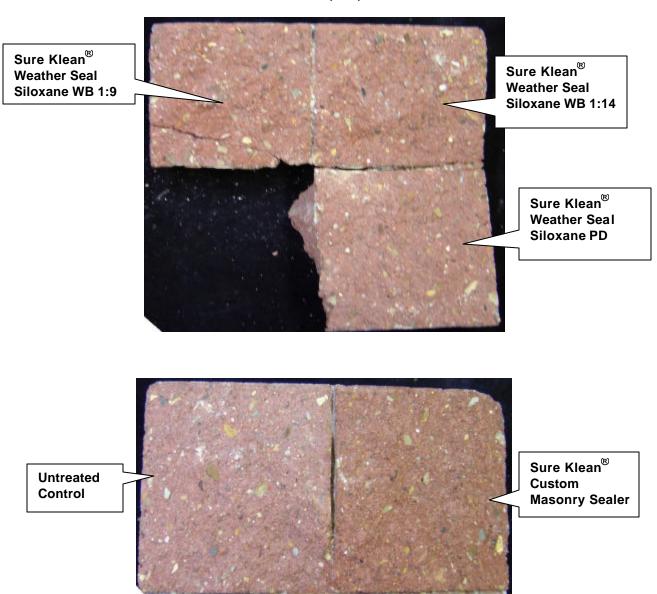
Results

"RC201WR" (Charcoal) CMU	
Untreated Control	< 40 mph
Custom Masonry Sealer	59 mph
Weather Seal Siloxane WB 1:9	59 mph
Weather Seal Siloxane WB 1:14	58 mph
Weather Seal Siloxane PD	58 mph
"RCL5545" (Orange) CMU	
Untreated Control	< 40 mph
Custom Masonry Sealer	60 mph
Weather Seal Siloxane WB 1:9	60 mph
Weather Seal Siloxane WB 1:14	59 mph
Weather Seal Siloxane PD	59 mph
"RCL140072WR" (Beige) CMU	
Untreated Control	< 40 mph
Custom Masonry Sealer	59 mph
Weather Seal Siloxane WB 1:9	57 mph
Weather Seal Siloxane WB 1:14	58 mph
Weather Seal Siloxane PD	55 mph





PHOTOGRAPHS – Protective Water Repellents



"RC16045" (Red) CMU





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CONCLUSIONS – Protective Water Repellents

Based upon laboratory evaluations, at least one of the PROSOCO, Inc. products tested provided above average water repellency to each of the submitted samples. In addition, Sure Klean[®] Custom Masonry Sealer provided slight color enhancement to the submitted samples. None of the other treatments altered the appearance of the samples in any way.

RECOMMENDATIONS - PROTECTIVE WATER REPELLENTS

Recommendations for water repellency treatment for each type of CMU submitted by Roanoke Concrete Products, Roanoke, IL, 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
"RCL140072WR" (Beige) CMU	Sure Klean [®] Custom Masonry Sealer OR Sure Klean [®] Weather Seal Siloxane WB (1:9) OR Sure Klean [®] Weather Seal Siloxane WB (1:14) OR Sure Klean [®] Weather Seal Siloxane PD
All Other Submitted Split-face and Smooth-face CMU's	Sure Klean [®] Custom Masonry Sealer OR Sure Klean [®] Weather Seal Siloxane WB (1:9) OR Sure Klean [®] Weather Seal Siloxane WB (1:14) OR Sure Klean [®] Weather Seal Siloxane PD OR
All Submitted Concrete Wedgies	Sure Klean [®] Paver Enhancer
"Black/Grey", "Black/Red", "Red", "Black/Tan", and "Tan" Pavers	Sure Klean [®] Paver Enhancer OR Consolideck [®] Saltguard [®] WB OR Sure Klean [®] Weather Seal Siloxane PD
"Grey" and "Charcoal" Pavers	Sure Klean [®] Paver Enhancer OR Sure Klean [®] Weather Seal Siloxane PD
"Black/Copper" Paver	Sure Klean [®] Paver Enhancer OR Consolideck [®] Saltguard [®] WB

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.





PROSOCO, Inc.

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SECTION D - GRAFFITI CONTROL

DESCRIPTION OF PRODUCTS EVALUATED

These trials were conducted to determine the optimal graffiti control treatment for the submitted concrete block samples.

Graffiti Control Treatments

Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control- A clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry materials. Blok-Guard[®] & Graffiti Control protects masonry surfaces from repeated graffiti attacks without altering the natural appearance.

Products Evaluated for Graffiti Removal

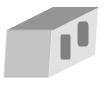
Defacer Eraser® Graffiti Wipe- An easy-to-use graffiti remover that does not contain methanol, methylene chloride or other halogenated solvents prohibited on many projects. Graffiti Wipe removes a variety of graffiti stains from most smooth masonry, split-face concrete block, wood and metal surfaces.

Sure Klean[®] Fast Acting Stripper – A thixotropic stripping compound formulated specifically for removal of high strength paints and coatings such as epoxies, polyurethanes, and floor enamels. Additionally, Fast Acting Stripper dissolves most spray paints, marking pens, lacquers and other graffiti.

Graffiti Agents

Interior/Exterior Spray Paint (Red) Permanent Marker (Green) Permanent Marker (Red) Permanent Marker (Black)





SAMPLE PREPARATION – Graffiti Control

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

Sections of the concrete block samples were treated with Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control, in accordance with PROSOCO, Inc.'s Product Guide application recommendations and then allowed to cure for at least one day. At the end of the one-day cure period, a visual adverse effects evaluation was made and then the graffiti agents were applied to the substrates.

Spray paint and markers were applied as graffiti agents to all treated surfaces no sooner than one day following application of Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using either Defacer Eraser[®] Graffiti Wipe or Sure Klean[®] Fast Acting Stripper.

TEST METHOD – Graffiti Control

Chemical cleaners were evaluated using the following procedure:

- 1. Apply the product to a dry surface, soiled with graffiti.
- 2. Allow appropriate dwell time:
- 3. Pressure rinse thoroughly until water runs clear. *

4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

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





TEST RESULTS – Graffiti Control

"RC201WR" (Charcoal) Split-face CMU							
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal		
Fast Acting Stripper	93%	90%	90%	90%	91%		
Graffiti Wipe	93%	85%	90%	90%	90%		
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal		
Foot Acting Strippor	95%	100%	95%	95%	96%		
Fast Acting Stripper Graffiti Wipe	<u> </u>	100%	<u> </u>	95%	96% 95%		
				90%	95%		
"RC16045" (Red) Split-face CMU							
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal		
Fast Acting Stripper	90%	90%	90%	95%	91%		
Graffiti Wipe	85%	85%	85%	90%	86%		
	Red	Black	Green	Red	% Avg.		
Blok-Guard [®] & Graffiti Control	Paint	Marker	Marker	Marker	Removal		
Fast Acting Stripper	95%	95%	95%	100%	96%		
Graffiti Wipe	98%	95%	95%	100%	97%		
"RC	CL140072WR"	(Beige) Split-f	ace CMU				
	Red	Black	Green	Red	% Avg.		
Untreated Control	Paint	Marker	Marker	Marker	Removal		
Fast Acting Stripper	85%	80%	80%	80%	81%		
Graffiti Wipe	90%	65%	65%	65%	71%		
Blok-Guard [®] & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal		
Fast Acting Stripper	93%	95%	90%	90%	92%		
Graffiti Wipe	95%	85%	85%	85%	88%		
	CL5545" (Oran						
	Red	Black	Green	Red	% Avg.		
Untreated Control	Paint	Marker	Marker	Marker	Removal		
Fast Acting Stripper	90%	85%	80%	85%	85%		
Graffiti Wipe	95%	75%	75%	75%	80%		
	Red	Black	Green	Red	% Avg.		
Blok-Guard [®] & Graffiti Control	Paint	Marker	Marker	Marker	Removal		
Fast Acting Stripper	95%	85%	85%	85%	88%		
Graffiti Wipe	95%	75%	75%	75%	80%		



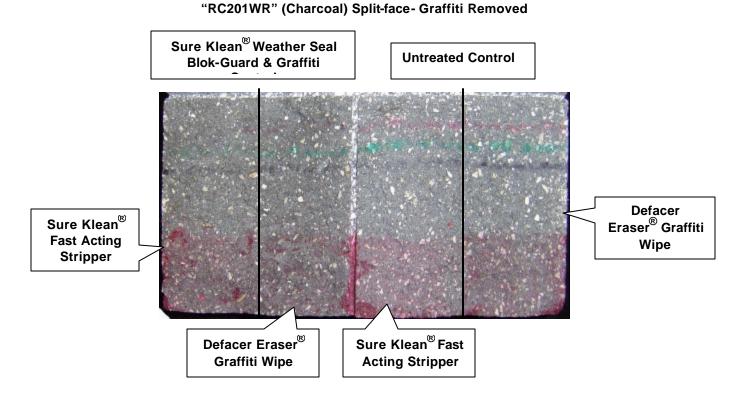


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PHOTOGRAPHS – Graffiti Control

"RC201WR" (Charcoal) Split-face- Graffiti Applied









CONCLUSIONS – Graffiti Control

Based upon laboratory evaluations, graffiti removal was improved when the submitted samples were treated with Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control prior to graffiti application.

In addition, Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control provided a slight color enhancement to the submitted samples.

RECOMMENDATIONS – GRAFFITI CONTROL

Recommendations for graffiti control treatment for each type of block submitted by Roanoke Concrete Products, Roanoke, IL, are provided in the chart below. Recommendations are based on the treatment that proved most effective for providing graffiti repellency and the product that was most effective at removing the graffiti on all types submitted.

Block Type	Graffiti Repellents	Graffiti Removers		
"RCL5545" (Orange) Smooth-face CMU	Sure Klean [®]	Sure Klean [®] Fast Acting Stripper		
All Other Submitted CMU's	Weather Seal Blok-Guard [®] & Graffiti Control	Sure Klean [®] Fast Acting Stripper OR Defacer Eraser [®] Graffiti Wipe		

Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. Because the severity of graffiti varies from location to location, on-site testing should be conducted to determine the most appropriate graffiti control product and procedure for a particular project.

For the most severe graffiti cases Sure Klean[®] Fast Acting Stripper is recommended for job-site testing. For mild graffiti cases, Defacer Eraser[®] Graffiti Wipe is recommended for job-site testing. See product literature for additional application and product information.





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SECTION E - STAIN RESISTANCE

DESCRIPTION OF PRODUCTS EVALUATED

These trials were conducted to determine the effectiveness of treatments in preventing food, oil, and miscellaneous staining on the submitted samples.

Products Evaluated for Stain Protection:

Stand Off[®] **Stone, Tile & Masonry Protector** – A penetrating oil and stain repellent. Easy-to-use. Low-VOC, low-odor protective treatment improves the stain resistance and simplifies maintenance cleaning of interior and exterior stone, quarry tile, concrete and masonry surfaces.

Stand Off[®] SLX100 Water & Oil Repellent – Combines water and oil repellency on most substrates to prevent staining by waterborne and oily substances. This modified "neat" silane system offers invisible protection and low volatility.

Kitchen Products Evaluated:	<u>Temperature</u> :			
Coca Cola	ambient (~70°F)			
Ketchup	ambient (~70°F)			
Mustard	ambient (~70°F)			
Red wine	ambient (~70°F)			
Balsamic Vinegar	ambient (~70°F)			
Soy Sauce	ambient (~70°F)			
Olive oil	ambient (~70°F)			
Wesson Oil	~250°F			
Coffee	~120°F			

SAMPLE PREPARATION – Stain Resistance

Samples were cleaned with Enviro Klean[®] 2010 All Surface Cleaner diluted with 10 parts water, allowed to dry and absorb atmospheric moisture for 24 hours prior to treatment. The method of application for protective treatments consisted of a wet-on-wet saturating brush application.





TEST METHOD – Stain Resistance

Surface Beading Evaluation

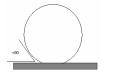
The food and oil products were applied to the test areas by using a dropper creating a bead 0.5 - 1.0 cm in diameter. The beading properties of the oils and liquids were visually evaluated within two minutes after application. The results are reported as a rating based on the angle of contact between the base of the droplet and the substrate. A rating of "1 or 2" indicated the smallest angle of contact (<90°) which correlates to "above average" repellency. A rating of "3 or 4" indicates "average" repellency. A rating of "5 or greater" indicated that the oil quickly absorbed into the substrate and correlates to "below average" repellency.

Note: Non-free flowing staining agents such as ketchup and mustard are applied in a blob and not evaluated for their beading properties.

Rating System (1-5)

1. No wetting of contact area (no darkening); angle less than 90°

2. Wetting contained to the contact area (slight darkening); angle is less than 90°



3. Wetting contained to the contact area (slight darkening); angle is greater than 90°, but less than 135°.



4. Wetting beyond the contact area (darkening); angle is greater than 135°



5. Wetting beyond the contact area (darkening); angle is flat.

NO ANGLE





TEST MET HODS: Continued

Stain Resistance

The soiling agents were allowed to dwell on the treated and untreated substrate for times of 24 hours, 4 hours, 1 hour, and 10 minutes. The test areas were then cleaned with Enviro Klean[®] 2010 All Surface Cleaner diluted 1 part concentrate to 10 parts fresh water and scrubbed under a stream of running water from a faucet. Samples were allowed to dry for 24 hours. Evaluation consisted of a visual examination of the tested areas to determine the percentage of staining removal.

TEST RESULTS – Surface Beading

"Grey" Concrete Paver									
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
Untreated Control	5	-	-	5	4	4	5	5	5
STMP	2	-	-	2	2	2	2	2	2
SLX100	2	-	-	2	2	2	2	2	2
"Black/Grey" Concrete Paver									
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
Untreated Control	5	-	-	5	5	5	5	5	5
STMP	2	-	-	2	2	2	2	2	2
SLX100	3	-	-	2	2	2	2	2	2
	"Black/Red" Concrete Paver								
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
Untreated Control	5	-	-	4	3	3	5	5	4
STMP	2	-	-	2	2	2	2	2	2
SLX100	2	-	-	2	2	2	2	2	2
"Charcoal" Concrete Paver									
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
Untreated Control	5	-	-	5	5	5	5	5	3
STMP	2	-	-	2	2	2	2	2	2
SLX100	2	-	-	2	2	2	2	2	2





TEST RESULTS – Surface Beading continued

	"Red" Concrete Paver												
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee				
Untreated Control	5	-	-	5	3	3	5	5	4				
STMP	2	-	-	2	2	2	2	2	2				
SLX100	2	-	-	2	2	2	2	2	2				
"Black/Copper" Concrete Paver													
Coco- Cola Ketchup Mustard Red Wine Balsamic Vinegar Soy Sauce Olive Oil Wesson Oil Hot Coffee													
Untreated Control 5 - 5 3 3 5 5													
STMP	1	-	-	2	2	2	2	2	2				
SLX100	2	-	-	2	2	2	2	2	2				
			"Black/T	an" Co	oncrete Pa	ver							
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee				
Untreated Control	3	-	-	3	3	3	5	5	4				
STMP	2	-	-	2	2	2	2	2	2				
SLX100	1	-	-	2	2	2	2	2	2				
			"Tan	" Conc	rete Paver								
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee				
Untreated Control	3	-	-	3	3	3	5	5	5				
STMP	1	-	-	2	2	2	2	2	2				
SLX100	1	-	-	2	2	2	2	2	2				
		"Ch	arcoal" V	Vedgie	- Smooth-fa	асе Тор							
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee				
Untreated Control	3	-	-	4	4	4	5	5	4				
STMP	2	-	-	2	2	2	2	2	2				
SLX100	2	-	-	2	2	2	2	2	2				





TEST RESULTS – Surface Beading continued

		"В	rown" We	edgie-	Smooth-fa	се Тор								
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee					
Untreated Control	3	-	-	4	4	4	5	5	4					
STMP	2	-	-	2	2	2	2	2	2					
SLX100	2	-	-	2	2	2	2	2	2					
	"Grey" Wedgie- Smooth-face Top													
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee					
Untreated Control	3	-	-	4	4	4	5	5	4					
STMP	2	-	-	2	2	2	2	2	2					
SLX100	2	-	-	2	2	2	2	2	2					
		"	Tan" Wed	lgie- S	mooth-fac	е Тор								
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee					
Untreated Control	3	-	-	4	4	4	5	5	4					
STMP	2	-	-	2	2	2	2	2	2					
SLX100	2	-	-	2	2	2	2	2	2					
		"C	harcoal"	Wedgi	e- Split-fac	e Side								
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee					
Untreated Control	3	-	-	5	5	5	3	5	5					
STMP	2	-	-	2	3	3	3	3	3					
SLX100	2	-	-	2	2	2	2	2	2					
		"	Brown" W	/edgie-	Split-face	Side								
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee					
Untreated Control	5	-	-	5	5	4	5	5	5					
STMP	2	-	-	2	2	2	2	2	2					
SLX100	2	-	-	2	2	2	2	2	2					

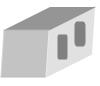




TEST RESULTS – Surface Beading continued

	"Grey" Wedgie- Split-face Side													
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee					
Untreated Control	5	-	-	5	5	5	4	5	5					
STMP	STMP 2 - 3 2 2 2 2 3													
SLX100	SLX100 2 2 2 2 2 2 2													
			"Tan" We	edgie-	Split-face S	Side								
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee					
Untreated Control	5	-	-	5	5	3	5	5	5					
STMP														
	SIX100 2 - - 2 2 2 2 2 3 3													





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TEST RESULTS – Stain Resistance: Kitchen Stains

Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

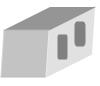
				0	ley concrete				
	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	85%	100%	100%	90%	90%	80%	<1%	<1%	95%
4 hour	85%	100%	100%	90%	90%	80%	<1%	<1%	95%
1 hour	85%	100%	100%	90%	90%	90%	<1%	<1%	95%
10 min.	85%	100%	100%	90%	90%	95%	<1%	<1%	95%
	Stand O	ff ^ະ Stone, T	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsam ic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	95%	100%	95%	100%	95%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [©] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	80%	80%	100%
4 hour	100%	100%	100%	100%	100%	100%	80%	80%	100%
1 hour	100%	100%	100%	100%	100%	100%	80%	80%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%

"Black/Grey" Concrete Paver

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	95%	95%	95%	90%	90%	90%	<1%	<1%	100%
4 hour	95%	100%	100%	95%	95%	95%	<1%	<1%	100%
1 hour	95%	100%	100%	100%	100%	100%	<1%	<1%	100%
10 min.	95%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand O	ff [®] Stone, T	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	95%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	85%	95%	100%
4 hour	100%	100%	100%	100%	100%	100%	85%	95%	100%
1 hour	100%	100%	100%	100%	100%	100%	90%	95%	100%
10 min.	100%	100%	100%	100%	100%	100%	90%	95%	100%

"Grey" Concrete Paver





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TEST RESULTS – Stain Resistance: Kitchen Stains

Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

"Black/Red" Concrete Paver

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	90%	85%	85%	95%	100%	100%	<1%	<1%	100%
4 hour	90%	90%	90%	95%	100%	100%	<1%	<1%	100%
1 hour	95%	90%	95%	100%	100%	100%	<1%	<1%	100%
10 min.	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand O	ff [‴] Stone, T	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	95%	95%	100%
4 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
1 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
10 min.	100%	100%	100%	100%	100%	100%	95%	95%	100%
	Stand O	ff [©] SLX100	Water & Oil	Repellent		4	•		
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	95%	95%	100%
4 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
1 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
10 min.	100%	100%	100%	100%	100%	100%	95%	95%	100%

"Charcoal" Concrete Paver

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	85%	85%	90%	90%	<1%	<1%	95%
4 hour	100%	100%	85%	85%	90%	90%	<1%	<1%	95%
1 hour	100%	100%	90%	90%	100%	100%	<1%	<1%	95%
10 min.	100%	100%	90%	90%	100%	100%	<1%	<1%	95%
	Stand O	ff ຶ Stone, T	ile, & Masoı	nry Protect	or				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	95%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	95%	100%	100%	100%	90%	90%	100%
4 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%





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TEST RESULTS – Stain Resistance: Kitchen Stains

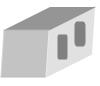
Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

				"F	Red" Concrete	Paver			
	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	90%	90%	85%	85%	85%	85%	<1%	<1%	75%
4 hour	90%	95%	90%	90%	90%	90%	<1%	<1%	75%
1 hour	95%	100%	95%	90%	90%	90%	<1%	<1%	75%
10 min.	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand O	ff ຶ Stone, T	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	95%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff ^{ّ°} SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	90%	85%	85%	95%
4 hour	100%	100%	100%	100%	100%	90%	90%	90%	95%
1 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%

"Black/Copper" Concrete Paver

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	90%	85%	85%	80%	80%	80%	<1%	<1%	90%
4 hour	90%	85%	85%	80%	80%	80%	<1%	<1%	90%
1 hour	90%	85%	85%	80%	80%	80%	<1%	<1%	90%
10 min.	90%	90%	90%	80%	80%	80%	<1%	<1%	90%
	Stand O	ff ຶ Stone, T	ile, & Masoı	nry Protect	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	100%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [©] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	95%	100%	100%	100%	80%	80%	100%
4 hour	100%	100%	100%	100%	100%	100%	85%	85%	100%
1 hour	100%	100%	100%	100%	100%	100%	90%	90%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%





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TEST RESULTS – Stain Resistance: Kitchen Stains

Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

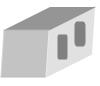
"Black/Tan" Concrete Paver

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	90%	100%	100%	<1%	<1%	95%
4 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	95%
1 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
10 min.	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand O	ff ^ະ Stone, T	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	95%	100%	100%	100%	95%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	95%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%

"Tan" Concrete Paver

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	90%	90%	80%	85%	80%	85%	<1%	<1%	60%
4 hour	95%	90%	85%	95%	80%	85%	<1%	<1%	60%
1 hour	100%	95%	90%	95%	85%	90%	<1%	<1%	70%
10 min.	100%	100%	95%	100%	95%	90%	<1%	<1%	80%
	Stand O	ff [ొ] Stone, T	ile, & Masoı	nry Protect	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	90%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	95%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%





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TEST RESULTS – Stain Resistance: Kitchen Stains

Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

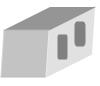
"Charcoal" Wedgie- Smooth-face Top

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	90%	90%	90%	90%	30%	30%	100%
4 hour	100%	100%	100%	100%	100%	100%	30%	30%	100%
1 hour	100%	100%	100%	100%	100%	100%	30%	30%	100%
10 min.	100%	100%	100%	100%	100%	100%	30%	30%	100%
	Stand O	ff [∞] Stone, T	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	90%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	100%	90%	90%	90%	75%	75%	100%
4 hour	100%	100%	100%	100%	100%	100%	75%	75%	100%
1 hour	100%	100%	100%	100%	100%	100%	75%	75%	100%
10 min.	100%	100%	100%	100%	100%	100%	75%	75%	100%

"Brown" Wedgie- Smooth-face Top

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	90%	90%	90%	90%	90%	90%	50%	50%	90%
4 hour	90%	100%	95%	90%	90%	90%	50%	50%	100%
1 hour	100%	100%	100%	100%	100%	100%	50%	50%	100%
10 min.	100%	100%	100%	100%	100%	100%	50%	50%	100%
	Stand O	ff [ొ] Stone, T	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	85%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [©] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	95%	90%	90%	90%	80%	80%	100%
4 hour	100%	100%	100%	100%	100%	100%	80%	80%	100%
1 hour	100%	100%	100%	100%	100%	100%	80%	80%	100%
10 min.	100%	100%	100%	100%	100%	100%	80%	80%	100%





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TEST RESULTS – Stain Resistance: Kitchen Stains

Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

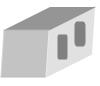
"Grey" Wedgie- Smooth-face Top

	Untreate	d Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	90%	85%	85%	85%	30%	30%	100%
4 hour	100%	100%	100%	90%	90%	90%	30%	30%	100%
1 hour	100%	100%	100%	100%	100%	100%	30%	30%	100%
10 min.	100%	100%	100%	100%	100%	100%	75%	75%	100%
	Stand Off [®] Stone, Tile, & Masonry Protector								
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	85%	90%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	90%	85%	85%	85%	95%	95%	100%
4 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
1 hour	100%	100%	100%	100%	100%	100%	95%	95%	100%
10 min.	100%	100%	100%	100%	100%	100%	95%	95%	100%

"Tan" Wedgie- Smooth-face Top

	Untreate	d Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	85%	95%	90%	90%	90%	<1%	<1%	100%
4 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
1 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
10 min.	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand O	ffຶ Stone, T	ile, & Masor	nry Protect	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	95%	95%	100%	50%	50%	90%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	100%	90%	90%	90%	50%	50%	100%
4 hour	100%	100%	100%	100%	100%	100%	50%	50%	100%
1 hour	100%	100%	100%	100%	100%	100%	50%	50%	100%
10 min.	100%	100%	100%	100%	100%	100%	50%	50%	100%





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TEST RESULTS – Stain Resistance: Kitchen Stains

Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

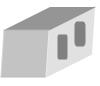
				"Cha	arcoal" Split-fa	ice Side			
	Untreate	d Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	90%	100%	100%	100%	<1%	<1%	95%
4 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	95%
1 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
10 min.	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand O	ff ຶ Stone, Ti	ile, & Masor	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	90%	100%	100%	100%	75%	75%	100%
4 hour	100%	100%	100%	100%	100%	100%	75%	75%	100%
1 hour	100%	100%	100%	100%	100%	100%	75%	75%	100%
10 min.	100%	100%	100%	100%	100%	100%	75%	75%	100%
	Stand O	ff [©] SLX100	Water & Oil	Repellent					
	Coca	Ketchup	Mustard	Red	Balsamic	Sov Sauce	Olive Oil	Wesson Oil	Hot

	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	90%	100%	100%	100%	50%	50%	100%
4 hour	100%	100%	100%	100%	100%	100%	50%	50%	100%
1 hour	100%	100%	100%	100%	100%	100%	50%	50%	100%
10 min.	100%	100%	100%	100%	100%	100%	50%	50%	100%

"Brown" Split-face Side

	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	100%	95%	95%	95%	<1%	<1%	95%
4 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
1 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
10 min.	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand O	ffຶ Stone, T	ile, & Masor	nry Protect	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	100%	100%	100%	100%	50%	50%	100%
4 hour	100%	95%	100%	100%	100%	100%	50%	50%	100%
1 hour	100%	100%	100%	100%	100%	100%	50%	50%	100%
10 min.	100%	100%	100%	100%	100%	100%	50%	50%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	50%	50%	100%
4 hour	100%	100%	100%	100%	100%	100%	50%	50%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%





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TEST RESULTS – Stain Resistance: Kitchen Stains

Cleaned with: Enviro Klean[®] 2010 All Surface Cleaner (1:10)

				"(Grey" Split-face	e Side			
	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	100%	100%	100%	100%	<1%	<1%	100%
4 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
1 hour	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
10 min.	100%	100%	100%	100%	100%	100%	<1%	<1%	100%
	Stand Off [®] Stone, Tile, & Masonry Protector								
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	90%	95%	100%	100%	100%	90%	90%	100%
4 hour	100%	95%	100%	100%	100%	100%	90%	90%	100%
1 hour	100%	100%	100%	100%	100%	100%	90%	90%	100%
10 min.	100%	100%	100%	100%	100%	100%	90%	90%	100%
	Stand O	ff [®] SLX100	Water & Oil	Repellent			•		
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	100%	100%	100%	100%	75%	75%	100%
4 hour	100%	100%	100%	100%	100%	100%	75%	75%	100%
1 hour	100%	100%	100%	100%	100%	100%	75%	75%	100%
10 min.	100%	100%	100%	100%	100%	100%	75%	75%	100%

"Tan" Split-face Side

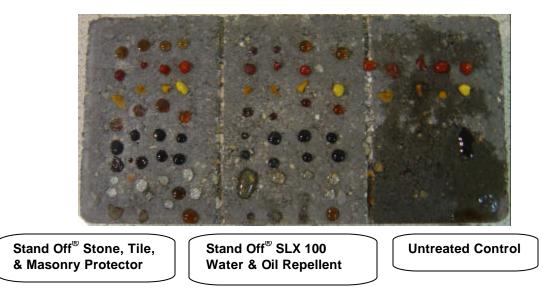
	Untreate	ed Control							
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	90%	90%	80%	85%	80%	85%	<1%	<1%	60%
4 hour	95%	90%	85%	95%	80%	85%	<1%	<1%	60%
1 hour	100%	95%	90%	95%	85%	90%	<1%	<1%	70%
10 min.	100%	100%	95%	100%	95%	90%	<1%	<1%	80%
	Stand O	ff [™] Stone, T	ile, & Masoı	nry Protec	tor				
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	90%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Stand O	ff [©] SLX100	Water & Oil	Repellent					
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	95%	100%	100%	100%	100%	100%	100%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%



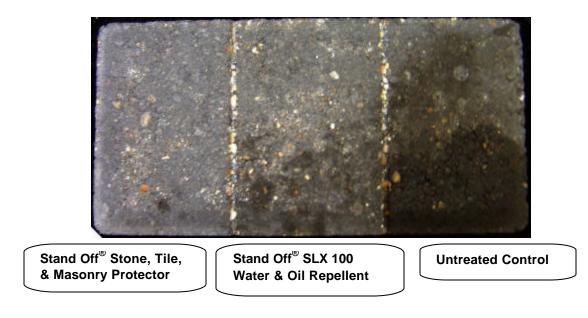


PHOTOGRAPHS- STAIN RESULTS

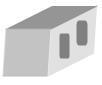
"Charcoal" Concrete Paver- Stains Applied



"Charcoal" Concrete Paver- Stains removed







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CONCLUSIONS – Stain Resistance

Based upon laboratory evaluations, Stand Off[®] Stone, Tile, and Masonry Protector was the most effective treatment in repelling the staining agents on most of the blocks. However, Stand Off[®] SLX100 Water & Oil Repellent also performed well on several submitted products. Both treatments improved the ability of the submitted products to repel water, oil, and other stains.

RECOMMENDATIONS – Stain Resistance

Recommendations for stain resistance treatment for each type of cast-stone submitted by Roanoke Concrete Products, Roanoke, IL are provided in the charts below. Recommendations are based on the treatments that proved most effective for providing stain repellency on all types submitted.

Sample	Stain Repellent	Maintenance Cleaner		
"Brown" Concrete Wedgie, Split-face Side	Stand Off [®] SLX 100 Water & Oil Repellent	Enviro Klean [®] 2010 All Surface Cleaner (1:10)		
"Black/Red", "Black/Tan", and "Tan" Pavers "Tan" Concrete Wedgie, Split- face Side	Stand Off [®] Stone, Tile and Masonry Protector OR Stand Off [®] SLX 100 Water & Oil Repellent	Enviro Klean [®] 2010 All Surface Cleaner (1:10)		
All Other Submitted Pavers and Concrete Wedgies	Stand Off [®] Stone, Tile and Masonry Protector	Enviro Klean [®] 2010 All Surface Cleaner (1:10)		





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SECTION F - COLOR ENHANCEMENT:

DESCRIPTION OF PRODUCTS EVALUATED – Color Enhancement:

Sure Klean[®] Weather Seal Blok-Guard[®] & Graffiti Control – A clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry materials.

Stand Off[®] **Gloss 'N Guard** - A highly durable protective coating for tile, pavers, terrazzo and other polished and unpolished masonry. Gloss 'N Guard dries to a high-gloss finish which enhances the natural beauty of treated surfaces.

TEST METHOD – COLOR ENHANCEMENT

The color enhancing products were applied in accordance with the product recommendation in the 2003 PROSOCO, Inc. Product Guide.

TEST RESULTS- COLOR ENHANCEMENT

Substrate	Color	Sure Klean [®] Paver Enhancer	Stand Off [®] Gloss 'N Guard
Concrete Paver	Grey	3	2
Concrete Paver	Black/Grey	3	2
Concrete Paver	Black/Red	3	2
Concrete Paver	Charcoal	3	2
Concrete Paver	Red	1	3
Concrete Paver	Black/Copper	3	2
Concrete Paver	Black/Tan	3	3
Concrete Paver	Tan	3	1
Wedgie, Split-face	Grey	2	3
Wedgie, Split-face	Tan	1	3
Wedgie, Split-face	Charcoal	3	2
Wedgie, Split-face	Brown	3	3
Wedgie, Smooth-face	Grey	2	3
Wedgie, Smooth-face	Tan	3	3
Wedgie, Smooth-face	Charcoal	3	3
Wedgie, Smooth-face	Brown	3	3

Scale: 0- No enhancement; dull

- 1- Slight Enhancement
- 2- Moderate Enhancement
- 3- Significant Enhancement





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PHOTOGRAPHS- Color Enhancement



"Charcoal" Concrete Paver

"Brown" Concrete Wedgie; Split-face Side







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RECOMMENDATIONS – Color Enhancement

Recommendations for color enhancement for each type of concrete paver and wedgie sample submitted by Roanoke Concrete Products, Roanoke, IL, are provided in the chart below. Recommendations are based on the treatment that proved most effective in providing color enhancement to each sample.

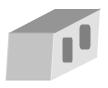
Substrate	Color Enhancer			
All submitted Concrete Wedgies	Stand Off [®] Gloss 'N Guard OR			
and Pavers	Sure Klean [®] Paver Enhancer			

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

flat & alm

Nathan R. Colaner Technical Analyst

NRC/



Laboratory Report

Pallet Tag Program Evaluation

Roanoke Concrete Products Roanoke, IL

Project No. 0310-21 PTP

Prepared For:

Dan Leman

Roanoke Concrete Products 101 Concrete Drive Roanoke, IL

Prepared By:



PROSOCO, Inc. December 2003