



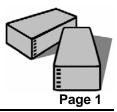
PROSOCO, Inc.

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Attachments

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





Submitted Information

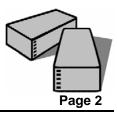
For: cc:	Mike Longo Jr., Whitacre-Greer Michael Trotta John Bourne
Subject:	Whitacre-Greer Alliance, OH
Date:	July 18, 2005
Project:	0506-12 PTP

Samples Submitted: 7 types of clay pavers.

Sample	Color	Finish	Size
"#30"	Red	Textured	3 ⁵ / ₈ " x 7 ⁵ / ₈ " x 1 ¹ / ₄ "
"#34"	Brown	Textured	3 ⁵ / ₈ " x 7 ⁵ / ₈ " x 1 ¹ / ₄ "
"#42"	Red/Tan	Textured	3 ⁵ / ₈ " x 7 ⁵ / ₈ " x 2 ¹ / ₄ "
"#50"	Tan	Textured	4" x 8" x 2 ¹ / ₄ "
"#52"	Beige	Textured	3 ⁵ / ₈ " x 7 ⁵ / ₈ " x 2 ¹ / ₄ "
"#53"	Light Brown	Textured	4" x 8" x 2 ¹ / ₄ "
"#63"	Dark Red/Brown	Textured	3 ⁵ / ₈ " x 7 ⁵ / ₈ " x 2 ¹ / ₄ "

Submitted by: Michael Trotta





Purpose of Testing

Seven types of clay pavers were submitted to PROSOCO, Inc.'s Testing Laboratory with a request to determine if application of the products evaluated will produce any surface alteration during new construction cleaning operations. Additionally, the effectiveness of water repellents, stain repellents and color enhancement products suitable for clay pavers were evaluated.

New Construction Cleaning – Enviro Klean[®] Mortar & Grout Remover was evaluated for removal of laboratory applied grout while limiting surface alterations to the decorative finish. The surface alteration evaluation was visually determined based upon perceived discoloration or erosion/etching of the samples.

To simulate new construction soiling, the samples were placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall were positioned on top of the samples and filled with a wet mixture of sanded latex grout. The wet grout-filled cylinder was allowed to remain in contact with the sample for 10 minutes before removal.

Heavy deposits of grout were removed with dry scraping after 24 hours. The prepared cleaning solution was then evaluated for its effectiveness in removing residual sanded latex grout after 3 and 7 days of curing.

A visual examination was also made to determine if the tested cleaner caused any surface alterations to the submitted clay pavers based on the following:

<u>Surface Finish Removal</u> is the visual examination of the sample comparing the surface finish of the untreated control surface to the surface finish cleaned with selected product(s) at given dilutions.

<u>Substrate Deterioration</u> is the visual examination of the sample comparing the surface of the untreated control to surfaces cleaned with selected product(s) at given dilutions looking for any potential erosion/digestion of the sample.

<u>Color Change</u> is the visual examination comparing the color of the untreated control surface to color of surfaces cleaned with selected products at given dilutions.

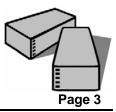
<u>Staining</u> is the visual examination for changes that are the result of a chemical reaction that leaves a staining precipitate.

Water Repellent Evaluation – Consolideck[®] Saltguard[®] WB and Stand Off[®] SLX100 Water & Oil Repellent were evaluated on the submitted samples for their ability to provide water repellency.

Stain Repellency – Stand Off[®] Stone, Tile & Masonry Protector (STMP) and Stand Off[®] SLX100 Water & Oil Repellent were evaluated on the submitted samples for their ability to repel stains.

Color Enhancement – Stand Off[®] Gloss 'N Guard was evaluated for its ability to provide color enhancement to the submitted samples.





Products Evaluated

New Construction Cleaning Products Evaluated

Sample	Product	Dilution
All Submitted Clay Pavers	Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.

Water Repellent Products Evaluated

Sample	Product	Dilution
All Submitted Clay Payers	Consolideck [®] Saltguard [®] WB	Concentrate
All Submitted Clay Pavers	Stand Off [®] SLX100 Water & Oil Repellent	Concentrate

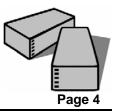
Stain Repellent Products Evaluated

Sample	Product	Dilution
All Submitted Clay Pavers	Stand Off [®] Stone, Tile & Masonry Protector (STMP)	Concentrate
All Submitted Clay Favers	Stand Off [®] SLX100 Water & Oil Repellent	Concentrate

Color Enhancement Products Evaluated

Sample	Product	Dilution
All Submitted Clay Pavers	Stand Off [®] Gloss 'N Guard	Concentrate





New Construction Cleaning

These cleaning trials were conducted to determine the optimal cleaning/cure time combination to most efficiently remove sanded latex grout from the submitted samples while limiting surface alterations to the decorative finish.

Sanded latex grout was prepared in compliance with the manufacturer's instructions, applied to the clay pavers and allowed to cure for 3 and 7 days. Grout removal was accomplished using chemical assistance and a high-pressure water rinse with pressure rinsing equipment. The removal of sanded latex grout was visually evaluated after 3 and 7 days of curing.

Description of Products Evaluated – New Construction Cleaning

Enviro Klean[®] Mortar & Grout Remover – A safe and effective way to remove excess mortar, grout and job dirt from masonry. Mixes with water at the job site to clean most brick, concrete, tile and stone surfaces. Also ideal for colored mortars and grouts, and since it's made from natural food products, it's safe for the environment.

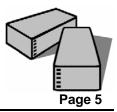
<u>Test Method</u> – New Construction Cleaning

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

- 1. Pre-wet the surface with water.
- 2. Apply the cleaner.
- 4. Pressure rinse thoroughly.*

***Pressure Rinsing Equipment** – Masonry washing equipment generating approximately 1300 psi with a water flow rate of 1.9 gallons per minute delivered through a 45 degree fan spray tip was used for rinsing.

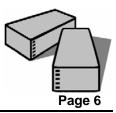




Test Results - New Construction Cleaning

"#30'	,		
Product	Dilution	3 day	7 day
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	98%	90%
"#34'	,		
Product	Dilution	3 day	7 day
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	95%	90%
"#42'	7		
Product	Dilution	3 day	7 day
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	95%	90%
"#50'	,		
Product	Dilution	3 day	7 day
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	95%	95%
"#52'	,		
Product	Dilution	3 day	7 day
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	98%	90%
"#53'	,		
Product	Dilution	3 day	7 day
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	98%	90%
"#63"			
Product	Dilution	3 day	7 day
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	90%	90%





Test Results – Limiting Surface Alterations

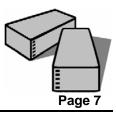
Substrate: Clay Paver	Pigment Color: "#30"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	0	0	0	0
Substrate: Clay Paver		Pigment Color:	"#34"		
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	0	0	0	0
Substrate: Clay Paver		Pigment Color:	"#42"		
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	0	0	0	0
Substrate: Clay Paver		Pigment Color: "#50"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	0	0	0	0
Substrate: Clay Paver		Pigment Color: "#52"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	0	0	0	0
Substrate: Clay Paver		Pigment Color: "#53"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	0	0	0	0
Substrate: Clay Paver		Pigment Color: "#63"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean [®] Mortar & Grout Remover	1 lb./gal.	0	0	0	0

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

3 – heavy

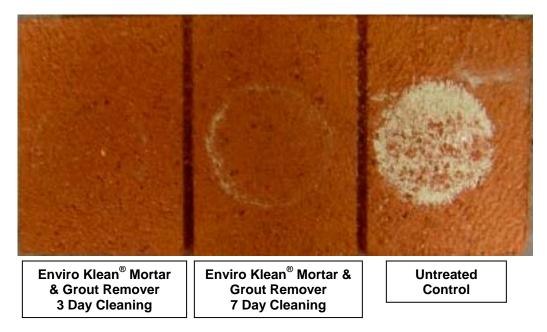
- 1 slight 2 – moderate
- 4 excessive





Photographs – New Construction Cleaning



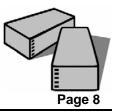


Photographs – Limiting Surface Alterations









Conclusions – New Construction Cleaning

Based on the test results, Enviro Klean[®] Mortar & Grout Remover performed well in removing excess sanded latex grout from the submitted samples. The product tested performed well in removing the sanded latex grout soils even after allowing the grout to remain on the surface of the samples for 7 days under ideal curing conditions. In addition, test results indicate that Enviro Klean[®] Mortar & Grout Remover caused no noticeable surface alterations on any of the submitted clay pavers.

To facilitate easier removal of excess grout and construction dirt while minimizing any potential surface alterations to the decorative finish, clean within 3 days of construction.

Recommendations – New Construction Cleaning

Recommendations for cleaning for the clay pavers submitted by Whitacre-Greer, Alliance, OH are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of grout while limiting surface alterations.

Sample	New Construction Cleaning (Sanded Latex Grout, 7 day cleaning)
All Submitted Clay Pavers	Enviro Klean [®] Mortar & Grout Remover (1 lb./gal.)

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





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

Description of Products Evaluated – Protective Water Repellents

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.

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. The small molecular structure of SLX100 allows for maximum penetration at coverage rates higher than that of conventional silanes. Depth of penetration is controlled by the application rate (loading rate). This makes SLX100 ideal for protecting granite and other dense, color-sensitive surfaces.

Sample Preparation – Protective Water Repellents

The submitted pavers were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. Both products were applied by brush in accordance with the recommendations in PROSOCO, Inc.'s 2005 Product Guide. Both treatments were allowed to cure for at least 14 days prior to testing.





Test Methods – Protective Water Repellents

Water Absorption Tube Test: Horizontal RILEM II.4, 5.0 milliliters, 20 minutes

The water absorption tube test simulating wind driven and wind blown rain conditions was performed. Tests were run with horizontal 5.0-milliliter head pressures. Filled to 5 milliliters, a water absorption tube produces a 103 mph dynamic wind pressure. See RILEM II.4 Tech Note for additional information.

The ranking system used to evaluate the effectiveness of the products applied to each submitted sample is as follows:

AA = "Above Average" correlates to less than or equal to 20% of the maximum untreated absorption.

 \underline{A} = "Average" correlates to less than or equal to 50% of the maximum untreated absorption.

<u>BA</u> = "Below Average" correlates to greater than 50% of the maximum untreated absorption.

EXAMPLE: If RILEM tubes applied to an untreated sample result in loss of 5 ml of water or more, then:

A rating of **<u>AA</u>** Above Average water repellent performance would require loss of less than or equal to:

5 ml X 20% = 1 ml

A rating of <u>A</u> Average water repellent performance would require loss of less than or equal to:

5 ml X 50% = 2.5ml

A rating of **<u>BA</u>** Below Average water repellent performance would require loss of more than:

5 ml X 50% = 2.5ml





PROSOCO, Inc.

Test Results - Protective Water Repellents

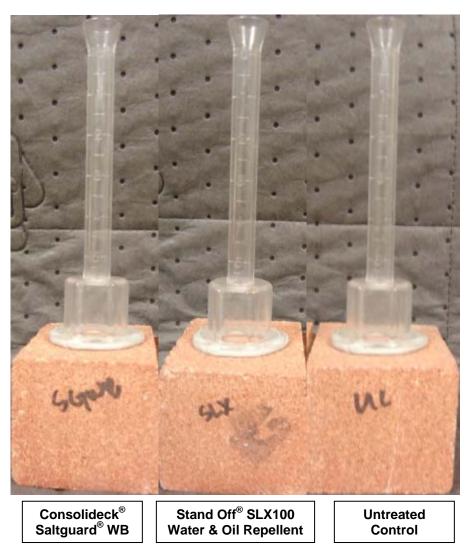
Water Absorption Tube Test: Horizontal RILEM II.4, 5.0 milliliters, 20 minutes

\underline{AA} = Above Average \underline{A} = Average	<u>BA</u> = Below Av	verage
"#30"	Results in mL loss	Ranking
Untreated Control	-0.0	
Consolideck [®] Saltguard [®] WB	-0.0	AA
Stand Off [®] SLX100 Water & Oil Repellent	-0.0	AA
"#34"	Results in mL loss	Ranking
Untreated Control	-0.0	
Consolideck [®] Saltguard [®] WB	-0.0	AA
Stand Off [®] SLX100 Water & Oil Repellent	-0.0	AA
"#42"	Results in mL loss	Ranking
Untreated Control	-0.0	
Consolideck [®] Saltguard [®] WB	-0.0	<u>AA</u>
Stand Off [®] SLX100 Water & Oil Repellent	-0.0	<u>AA</u>
"#50"	Results in mL loss	Ranking
Untreated Control	-0.0	
Consolideck [®] Saltguard [®] WB	-0.0	<u>AA</u>
Stand Off [®] SLX100 Water & Oil Repellent	-0.0	<u>AA</u>
"#52"	Results in mL loss	Ranking
Untreated Control	-0.0	
Consolideck [®] Saltguard [®] WB	-0.0	<u>AA</u>
Stand Off [®] SLX100 Water & Oil Repellent	-0.0	<u>AA</u>
"#53"	Results in mL loss	Ranking
Untreated Control	-0.0	
Consolideck [®] Saltguard [®] WB	-0.0	<u>AA</u>
Stand Off [®] SLX100 Water & Oil Repellent	-0.0	<u>AA</u>
"#63"	Results in mL loss	Ranking
Untreated Control	-0.0	
Consolideck [®] Saltguard [®] WB	-0.0	AA
Stand Off [®] SLX100 Water & Oil Repellent	-0.0	<u>AA</u>





Photographs – Protective Water Repellents



"#42"; RILEM Testing





<u>Conclusions</u> – Protective Water Repellents

Based upon laboratory evaluations, both Consolideck[®] Saltguard[®] WB and Stand Off[®] SLX100 Water & Oil Repellent provided above average water repellency to all of the submitted samples. Neither of the treatments altered the appearance of the samples in any way.

<u>Recommendations</u> – Protective Water Repellents

Recommendations for water repellency treatment for each type of clay paver submitted by Whitacre-Greer, Alliance, OH are provided in the chart below. Recommendations are based on the treatment that proved most effective and can provide water repellency on all types submitted.

Sample	Water Repellents
All Submitted Clay Pavers	Consolideck [®] Saltguard [®] WB OR Stand Off [®] SLX100 Water & Oil Repellent

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.





Stain Repellency

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

Description of Products Evaluated – Stain Repellency

Stain Repellent Treatments

Stand Off[®] **Stone, Tile & Masonry Protector (STMP)** – A penetrating oil and stain repellent that is an 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. The small molecular structure of SLX100 allows for maximum penetration at coverage rates higher than that of conventional silanes. Depth of penetration is controlled by the application rate (loading rate). This makes SLX100 ideal for protecting granite and other dense, color-sensitive surfaces.

Maintenance Cleaner

Enviro Klean[®] 2010 All Surface Cleaner – A "next-generation" product for cleaning and degreasing light-toheavily soiled stone, tile, masonry and much more. Powerful enough for industrial use, flexible enough for jobs around the home, space-saving EK 2010 replaces a host of individual cleaning agents. It is suitable for homeuse on windows, bathroom tub and tile, counter tops and more when diluted with water. It's concentrated enough for the toughest industrial cleaning jobs on concrete, metal and many other plant and warehouse surfaces. EK 2010 also removes Sure Klean[®] Weather Seal Siloxane PD overspray from windows.

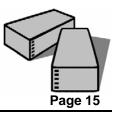
Staining Agents Evaluated

Products	Temperature
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 Repellency

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 the protective treatments consisted of a brushing application in accordance with PROSOCO, Inc.'s 2005 Product Guide instructions.





Test Method – Stain Repellency

Surface Beading Evaluation

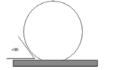
The food and oil products were applied to the test areas by using a dropper creating a bead 0.5 - 1.0 cm in diameter. The beading properties of the oils and liquids were visually evaluated within two minutes after application. The results are reported as a rating based on the angle of contact between 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 globular fashion and therefore are 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

Stain Removal Evaluation

The soiling agents were allowed to dwell on the treated and untreated substrates 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.

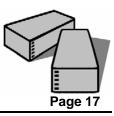




Test Results – Surface Beading

				"#30"							
	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	4	-	-	4	4	4	3	3	4		
SLX100	3	-	-	3	3	3	3	3	3		
	"#34"										
	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	3	-	-	4	4	4	4	4	4		
SLX100	1	-	-	2	2	2	3	3	3		
				"#42"							
	Coco- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee		
Untreated Control	4	-	-	5	5	5	5	5	5		
STMP	3	-	-	4	4	4	4	4	4		
SLX100	1	-	-	2	2	2	3	3	3		
"#50"											
	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	3	-	-	3	3	3	3	3	3		
SLX100	2	-	-	2	2	2	3	3	2		
				"#52"							
	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	1	-	-	3	3	3	5	5	3		
SLX100	1	-	-	2	2	2	3	3	3		
				"#53"							
	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	3	-	-	3	3	3	3	3	3		
SLX100	2	-	-	2	2	2	3	3	2		
				"#63"							
	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	3	3	2		
SLX100	1	-	-	1	1	1	3	3	2		





					"#30"				
	Untreated	Control							
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	60%	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 (STMP)				
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 Off [®]	°SLX100 W	ater & Oil R	epellent					
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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%
					"#34"				
	Untreated	Control							
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 (STMP)				
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 Off [®]	SLX100 W	ater & Oil R	epellent					
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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%





					"#42"				
	Untreated	Control							
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	70%	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 (STMP)				
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 Off [®]	[°] SLX100 Wa	ater & Oil R	epellent				-	
	Coca- Cola		Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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%
					"#50"				
	Untreated	Control							
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 (STMP)				
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	75%	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 Off [®]	SLX100 Wa	ater & Oil R	epellent					
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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%





					"#52"				
	Untreated	Control							
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 (STMP)				
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 [®]	°SLX100 W	ater & Oil R	epellent					
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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%
					"#53"				
	Untreated	Control							
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	95%	10%	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 (STMP)				
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 Off [®]	SLX100 W	ater & Oil R	epellent					
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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%





	"#63"								
	Untreated	Control							
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 (STMP)								
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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 Off [®]	⁹ SLX100 Wa	ater & Oil R	epellent					
	Coca- Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
24 hr	100%	100%	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%





Photographs - Stain Repellency

"#50"; Stains Applied



Stand Off [®] SLX100	
Water & Oil Repellent	

Stand Off[®] Stone, Tile & Masonry Protector (STMP) **Untreated Control**

"#50"; Stains Removed







Conclusions – Stain Repellency

Based upon laboratory evaluations, both Stand Off[®] SLX100 Water & Oil Repellent and Stand Off[®] Stone, Tile & Masonry Protector (STMP) improved the surface beading of the submitted clay pavers. Stand Off[®] SLX100 Water & Oil Repellent was effective in repelling the staining agents from all of the submitted samples. Stone, Tile & Masonry Protector (STMP) was effective in repelling the staining agents from all of the submitted samples except "#52".

Recommendations – Stain Repellency

Recommendations for stain resistance treatment for the clay pavers submitted by Whitacre-Greer, Alliance, OH are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective for providing stain repellency on the submitted clay pavers.

Sample	Stain Repellent	Maintenance Cleaner
"#30" "#34" "#42" "#50" "#53" "#63"	Stand Off [®] SLX100 Water & Oil Repellent OR Stand Off [®] Stone, Tile & Masonry Protector (STMP)	Enviro Klean [®] 2010 All Surface Cleaner (1:10)
"#52"	Stand Off [®] SLX100 Water & Oil Repellent	

The ability of a stain repellent treatment to prevent staining is affected by a variety of factors. Therefore, onsite testing should be carried out for all installations with the recommended systems to ensure job site workmanship yields equivalent 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 stain repellent product and procedures for a particular project. See product literature for additional application and product information.





Color Enhancement

Description of Products Evaluated – Color Enhancement

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 that enhances the natural beauty of treated surfaces.

Sample Preparation – Color Enhancement

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.

Test Method – Color Enhancement

Stand Off[®] Gloss 'N Guard was applied by brush in accordance with the 2005 PROSOCO, Inc. Product Guide instructions.





Test Results - Color Enhancement

Sample	Stand Off [®] Gloss 'N Guard
"#30"	1
"#34"	2
"#42"	2
"#50"	2
"#52"	2
"#53"	2
"#63"	2

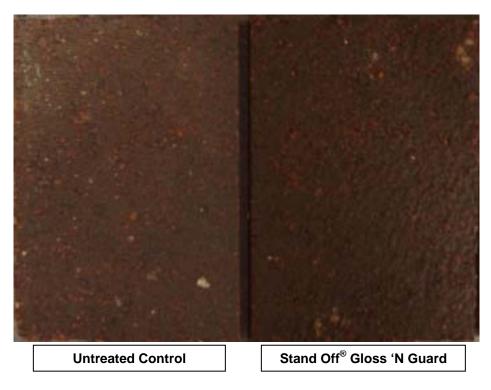
Scale: 0- No enhancement; dull

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





Photographs – Color Enhancement



"#63"; Color Enhancement Treatments Applied





Recommendations – Color Enhancement

Recommendations for color enhancement for the submitted clay pavers by Whitacre-Greer, Alliance, OH are provided in the chart below. Recommendations are based on the treatment that proved most effective in providing color enhancement to the submitted samples.

Sample	Color Enhancement
All Submitted Clay Pavers	Stand Off [®] Gloss 'N Guard

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.

Christopher A. Moore Project Testing Laboratory Technician CAM



Laboratory Report

Pallet Tag Program Evaluation

Whitacre-Greer Alliance, OH

Project No. 0506-12 PTP

Prepared For:

Whitacre-Greer 1400 S Mahoning Avenue Alliance, OH 44601

Prepared By:

PROSOCO, Inc. July 2005