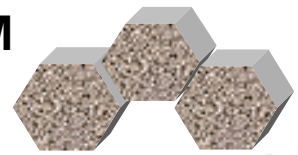




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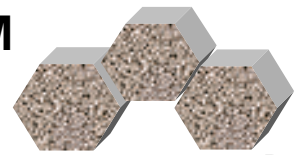
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## **ATTACHMENTS**

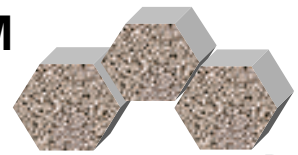
Technical Services TECH Note RILEM Test Method No. II.4

Product Data literature for all products evaluated

Material Safety Data Sheets for all products evaluated



# CONCRETE PAVER PROGRAM LABORATORY REPORT



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**FOR:** Western Brick Company  
7620 Washington Ave.  
Houston, TX 77007

**cc:** Jack James  
Paul Tessier

**SUBJECT:** Western Brick Company  
Houston, TX

**DATE:** January 25, 2001

**PROJECT:** 0012-05 CPP

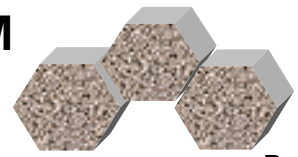
**SAMPLES SUBMITTED:**

<u>Block</u>	<u>Color</u>	<u>Size</u>
(CC) Concrete Paver	"Copper Canyon"	2¼" x 3¾" x 7¾"
(DG) Concrete Paver	"Dove Gray"	2¼" x 3¾" x 7¾"
(GW) Concrete Paver	"Glacier White"	2¼" x 3¾" x 7¾"
(SG) Concrete Paver	"Smoke Granite"	2¼" x 3¾" x 7¾"
(EB) Concrete Paver	"Earth Brown"	2¼" x 3¾" x 7¾"
(IS) Concrete Paver	"Ivory Sand"	2¼" x 3¾" x 7¾"
(CR) Concrete Paver	"Crimson"	2¼" x 3¾" x 7¾"
(SE) Concrete Paver	"Sienna"	2¼" x 3¾" x 7¾"

**Submitted by:** Jack James



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## PURPOSE OF TESTING:

Eight different styles of concrete 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, suitable for concrete pavers, will be evaluated.

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

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

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

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

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

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

- 0 – no change
- 1 – slight change
- 2 – moderate change
- 3 – heavy change
- 4 – excessive change

**\* NOTE: When cleaning integrally colored CMU.**

Integrally colored concrete masonry units (CMUs) frequently have high amounts of pigments concentrated on the surface of the cured concrete unit. Variation of surface pigment concentrations from one CMU to the next creates a blotchy appearance in the completed wall. Allowed to remain on the surface of the CMU, the weakly bound pigment will weather and streak, further detracting from the appearance of the completed CMU wall.

In addition to removing excess mortar and construction related soiling, the goal of any cleaning operation undertaken on integrally colored CMU should include removal of unnaturally high concentrations of surface pigment. By revealing the natural through-body color on the integrally colored unit, the overall color uniformity and weathering resistance of the completed CMU wall is improved.

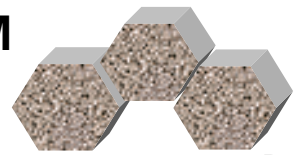
**B. Water Repellent Evaluation** – Stand Off<sup>®</sup> Paver Kare<sup>®</sup> Paver Enhancer, Stand Off<sup>®</sup> SLX100 Water & Oil Repellent, Stand Off<sup>®</sup> Impregnator, and Stand Off<sup>®</sup> Gloss N Guard were evaluated on the submitted samples for their ability to provide water repellency.

**C. Color Enhancement** -- Stand Off<sup>®</sup> Paver Kare<sup>®</sup> Paver Enhancer, Stand Off<sup>®</sup> SLX100 Water & Oil Repellent, Stand Off<sup>®</sup> Impregnator, and Stand Off<sup>®</sup> Gloss N Guard were evaluated on the submitted samples for their ability to enhance the natural color of the pavers.

**D. Stain Resistance** – Stand Off<sup>®</sup> Paver Kare<sup>®</sup> Paver Enhancer, Stand Off<sup>®</sup> SLX100 Water & Oil Repellent, Stand Off<sup>®</sup> Impregnator, and Stand Off<sup>®</sup> Gloss N Guard were evaluated for ability to provide stain protection to the submitted samples at increments of 10 minutes, 1 hour, 4 hours, 7 hours, and 24 hours.



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## SURFACE ALTERATION PRODUCTS EVALUATED

BLOCK TYPE	Custom Masonry Cleaner	Burnished Custom Masonry Cleaner
All Colors of Pavers	1:2	1:2
	1:4	1:3
	1:6	

## WATER REPELLENT PRODUCTS EVALUATED

Block Type	Product	Dilution
All Colors of Pavers	Paver Enhancer	Concentrate
	SLX100	Concentrate
	Impregator	Concentrate
	Gloss 'N Guard	Concentrate

## STAIN RESISTANT PRODUCTS EVALUATED

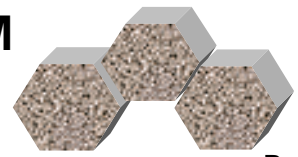
Block Type	Product	Dilution
All Colors of Pavers	Paver Enhancer	Concentrate
	SLX100	Concentrate
	Impregator	Concentrate
	Gloss 'N Guard	Concentrate

## COLOR ENHANCING PRODUCTS EVALUATED

Block Type	Product	Dilution
All Colors of Pavers	Paver Enhancer	Concentrate
	SLX100	Concentrate
	Impregator	Concentrate
	Gloss 'N Guard	Concentrate



# CONCRETE PAVER PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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## SECTION A – Surface Alterations:

### DESCRIPTION OF PRODUCTS EVALUATED – Surface Alterations:

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

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

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### TEST METHOD – Surface Alteration Testing:

Dilution ratios refer to mixtures of concentrated cleaner : fresh water.

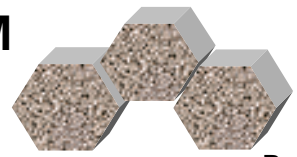
Sure Klean® Custom Masonry Cleaner was evaluated at dilutions of 1:2, 1:4, and 1:6. Sure Klean® Burnished Custom Masonry Cleaner was evaluated at dilutions of 1:2 and 1:3. The following procedure was used:

1. Prewet the surface with water.
2. Apply each cleaner at the appropriate dilutions.
3. Allow 3-5 minute exposure time.
4. Reapply the products and moderately agitate with a brush.
5. Pressure rinse thoroughly.\*
1. Allow the surface to dry for at least 18 hours and visually examine.

\* Pressure rinsing was conducted at approximately 800 psi with a warm water flow rate of 1.9 gallons per minute.



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**Surface Alteration Results:**

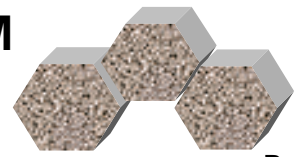
<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Copper Canyon"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/ Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Dove Gray"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Glacier White"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Smoke Granite"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0

Scale used for reporting results of all categories

- |                     |                      |
|---------------------|----------------------|
| 0 – no change       | 3 – heavy change     |
| 1 – slight change   | 4 – excessive change |
| 2 – moderate change |                      |



# CONCRETE PAVER PROGRAM LABORATORY REPORT



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**Surface Alteration Results Continued:**

<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Earth Brown"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Ivory Sand"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Crimson"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0
<b>Substrate: Concrete Paver</b>		<b>Pigment Color: "Sienna"</b>			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Custom Masonry Cleaner	1:2	3	2	3	0
Custom Masonry Cleaner	1:4	2	2	2	0
Custom Masonry Cleaner	1:6	2	2	2	0
Burnished Custom Masonry Clnr	1:2	1	1	1	0
Burnished Custom Masonry Clnr	1:3	1	1	1	0

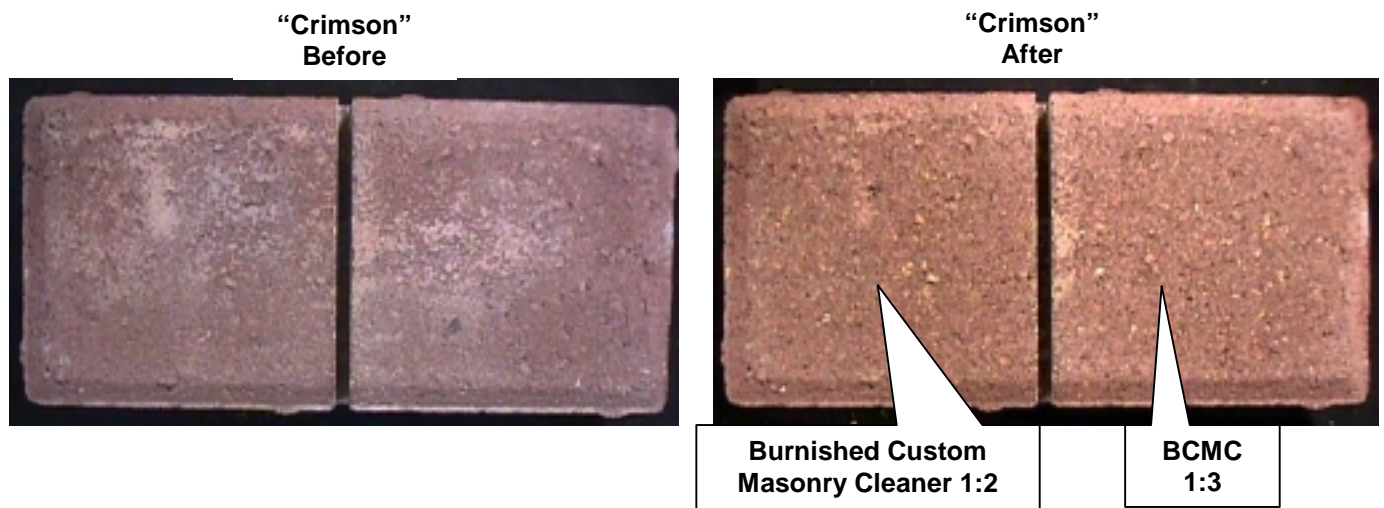
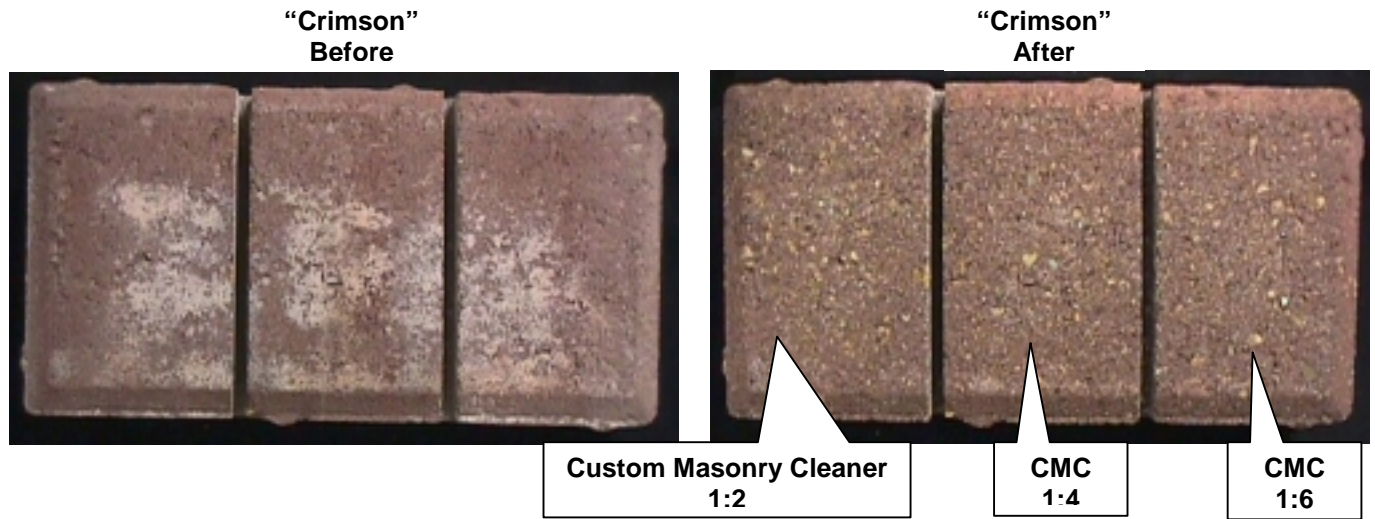
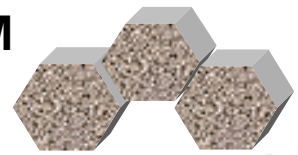
Scale used for reporting results of all categories

- |                     |                      |
|---------------------|----------------------|
| 0 – no change       | 3 – heavy change     |
| 1 – slight change   | 4 – excessive change |
| 2 – moderate change |                      |





# CONCRETE PAVER PROGRAM LABORATORY REPORT



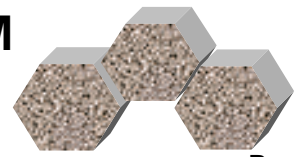
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## CONCLUSIONS – Surface Alterations:

All dilutions of Sure Klean® Custom Masonry Cleaner and Sure Klean® Burnished Custom Masonry Cleaner tested affected the substrate in a similar manner, removing heavy concentrations of pigmented matrix from the pavers, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit. Use higher concentrations and surface agitation to maximize aggregate exposure. Use low concentration and surface agitation to minimize aggregate exposure.



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PROSOCO, Inc.

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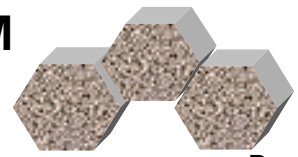
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## RECOMMENDATIONS – Surface Alterations:

Based on these evaluations, all of the dilutions of Sure Klean® Custom Masonry Cleaner and Sure Klean® Burnished Custom Masonry Cleaner tested can be recommended for job site testing. They all are effective in removing excess mortar and job dirt, and they all assist in improving the color and uniformity of these pavers. 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.



# CONCRETE PAVER PROGRAM LABORATORY REPORT



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## **SECTION B - 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

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### **DESCRIPTIONS OF PRODUCTS EVALUATED - Protective Water Repellents:**

**Stand Off® Paver Kare® 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.

**Stand Off® SLX100 Water & Oil Repellent**—Combines water and oil repellency to prevent staining by waterborne or oily substances and many types of graffiti. This modified “neat” silane system offers invisible protection and low volatility.

**Stand Off® Impregnator**—Combines water and oil repellency to prevent staining by waterborne or oily substances. This special system offers invisible protection and low volatility. Impregnator is capable of penetrating and chemically bonding deep within the substrate to provide long-lasting protection against water- and oil-related staining and deterioration.

**Stand Off® Gloss ‘N Guard**—A highly durable, VOC-compliant, 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.

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### **SAMPLE PREPARATION - Protective Water Repellents:**

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

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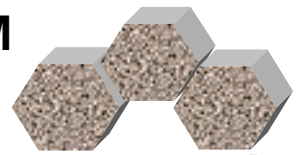
### **TEST METHODS - Protective Water Repellents:**

#### **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.



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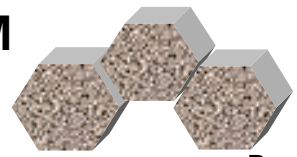
**TEST RESULTS - Protective Water Repellents:**

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

RESULTS	
<b>"Copper Canyon"</b>	
Untreated Control	47.5mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph
<b>"Dove Gray"</b>	
Untreated Control	53mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph
<b>"Glacier White"</b>	
Untreated Control	48.5mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph
<b>"Smoke Granite"</b>	
Untreated Control	55.3mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph



# CONCRETE PAVER PROGRAM LABORATORY REPORT



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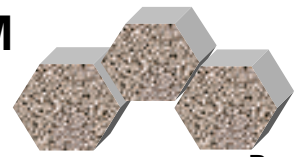
**TEST RESULTS Continued: Protective Water Repellents**

**RESULTS**

"Earth Brown"	
Untreated Control	43.8mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph
"Ivory Sand"	
Untreated Control	52.3mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph
"Crimson"	
Untreated Control	<40mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph
"Sienna"	
Untreated Control	<40mph
Stand Off <sup>®</sup> Paver Kare <sup>®</sup> Paver Enhancer	60mph
Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	60mph
Stand Off <sup>®</sup> Impregnator	60mph
Stand Off <sup>®</sup> Gloss 'N Guard	60mph



# CONCRETE PAVER PROGRAM LABORATORY REPORT



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## CONCLUSIONS - Protective Water Repellents:

Based upon laboratory evaluations, all of the submitted pavers exhibited above average water repellency when treated with at least one of the water-repellent treatments. Stand Off<sup>®</sup> Paver Kare<sup>®</sup> Paver Enhancer was effective at enhancing the substrate's natural appearance. Stand Off<sup>®</sup> Gloss 'N Guard enhanced the substrate's natural appearance as well as leaving a high-gloss finish. Stand Off<sup>®</sup> SLX100 and Stand Off<sup>®</sup> Impregnator did not change the appearance of the substrates.

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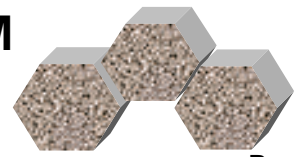
## RECOMMENDATIONS - Protective Water Repellents:

Based on evaluations, Stand Off<sup>®</sup> Paver Kare<sup>®</sup> Paver Enhancer, Stand Off<sup>®</sup> SLX100 Water & Oil Repellent, Stand Off<sup>®</sup> Impregnator, and Stand Off<sup>®</sup> Gloss 'N Guard can be recommended for jobsite testing to provide water repellency.

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.



# CONCRETE PAVER PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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## **SECTION C – COLOR ENHANCEMENT:**

The testing described below evaluates the degree of color enhancement that the treatments provide to the pavers.

The surface treatments evaluated were selected for their suitability for application based on the following selection criteria:

1. Ease of application
2. Color change
3. Removal of staining substances

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### **DESCRIPTIONS OF PRODUCT EVALUATED—Color Enhancement:**

**Stand Off® Paver Kare® 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.

**Stand Off® SLX100 Water & Oil Repellent**—Combines water and oil repellency to prevent staining by waterborne or oily substances and many types of graffiti. This modified “neat” silane system offers invisible protection and low volatility.

**Stand Off® Impregnator**—Combines water and oil repellency to prevent staining by waterborne or oily substances. This special system offers invisible protection and low volatility. Impregnator is capable of penetrating and chemically bonding deep within the substrate to provide long-lasting protection against water- and oil-related staining and deterioration.

**Stand Off® Gloss ‘N Guard**—A highly durable, VOC-compliant, 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.

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### **TEST METHODS—Color Enhancement:**

Color enhancement is evaluated visually based on the appearance of the treatment applied. This includes color changes and/or darkening.

For purpose of this evaluation, treatments that produce “no enhancement” do not alter the natural appearance of the substrate and are rated with a value of 1. Untreated substrates are rated a value of 0. Treatments that provide the same degree of darkening as water-saturated examples of the substrate are rated with a value of 5.

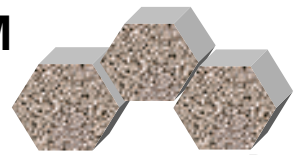
A value of 2 is estimated to be 25% of the water-saturated degree of darkening.

A value of 3 is estimated to be 50% of the water-saturated degree of darkening.

A value of 4 is estimated to be 75% of the water-saturated degree of darkening.



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**TEST RESULTS: Color Enhancement**

"Copper Canyon"		"Dove Gray"	
Treatment	Enhancement	Treatment	Enhancement
Untreated Control	0	Untreated Control	0
Paver Enhancer	3	Paver Enhancer	3
SLX 100	1	SLX 100	1
Impregnator	1	Impregnator	1
Gloss 'N Guard	4	Gloss 'N Guard	4
"Glacier White"		"Smoke Granite"	
Treatment	Enhancement	Treatment	Enhancement
Untreated Control	0	Untreated Control	0
Paver Enhancer	3	Paver Enhancer	3
SLX 100	1	SLX 100	1
Impregnator	1	Impregnator	1
Gloss 'N Guard	4	Gloss 'N Guard	4
"Earth Brown"		"Ivory Sand"	
Treatment	Enhancement	Treatment	Enhancement
Untreated Control	0	Untreated Control	0
Paver Enhancer	3	Paver Enhancer	3
SLX 100	1	SLX 100	1
Impregnator	1	Impregnator	1
Gloss 'N Guard	4	Gloss 'N Guard	4
"Crimson"		"Sierra"	
Treatment	Enhancement	Treatment	Enhancement
Untreated Control	0	Untreated Control	0
Paver Enhancer	3	Paver Enhancer	3
SLX 100	1	SLX 100	1
Impregnator	1	Impregnator	1
Gloss 'N Guard	4	Gloss 'N Guard	4

Scale used for reporting results:

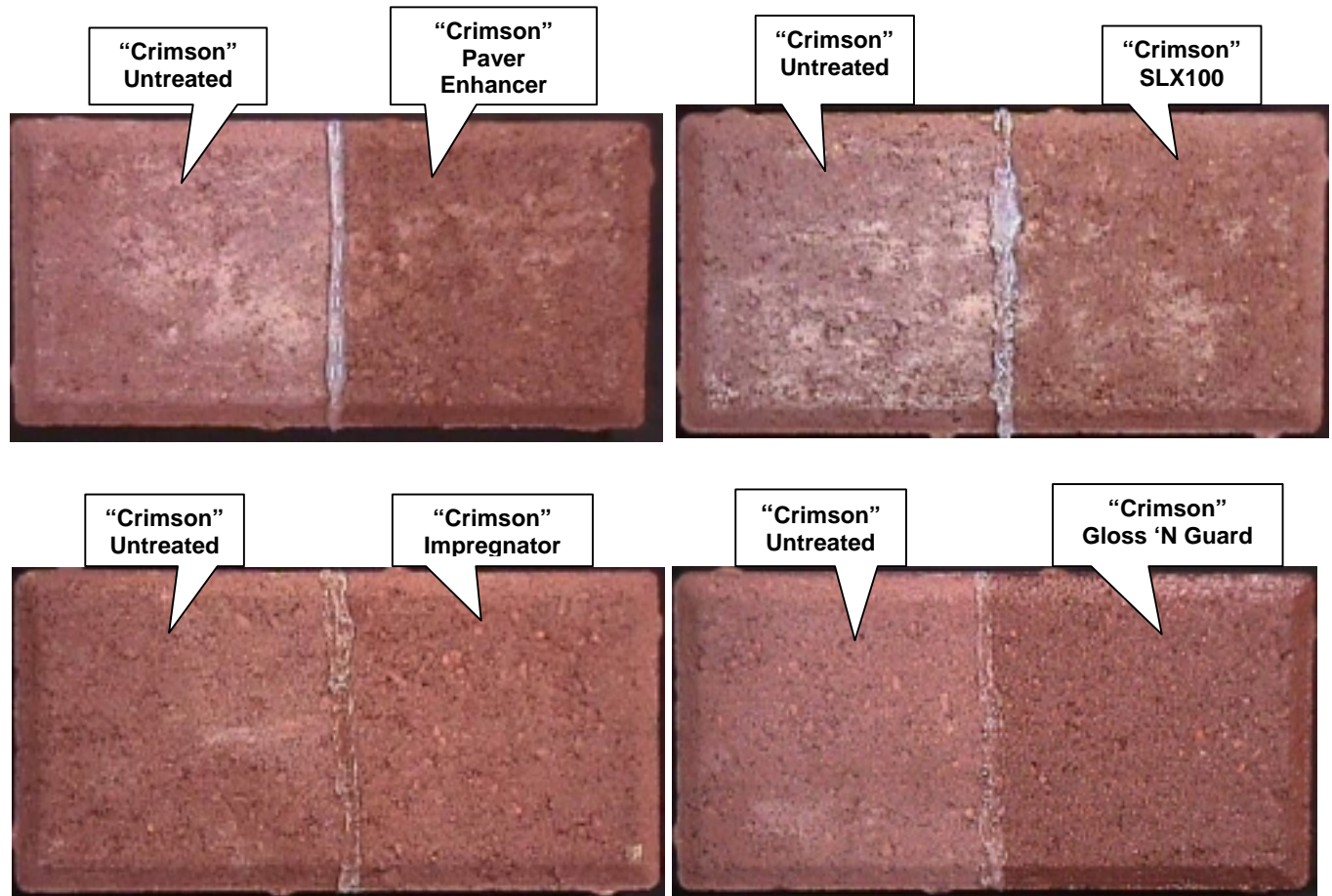
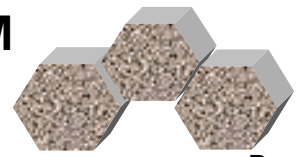
- 0 – Untreated Control
- 1 – No Enhancement
- 2 – 25% Darkening

- 3 – 50% Darkening
- 4 – 75% Darkening
- 5 – 100% Darkening





# CONCRETE PAVER PROGRAM LABORATORY REPORT



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## CONCLUSIONS – Color Enhancement:

Based upon laboratory evaluations, Stand Off® Paver Kare® Paver Enhancer and Stand Off® Gloss 'N Guard were effective at providing color enhancement. Paver Enhancer darkened the paver while Gloss 'N Guard darkened and left a high gloss finish. Stand Off® SLX100 and Stand Off® Impregnator had little to no enhancing effects on the pavers

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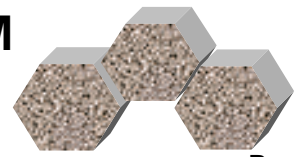
## RECOMMENDATIONS – Color Enhancement:

Based on evaluations, Stand Off® Paver Kare® Paver Enhancer, and Stand Off® Gloss 'N Guard can be recommended for jobsite testing to provide color enhancement.

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



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## **SECTION D - PROTECTIVE STAIN REPELLENTS:**

The testing described below evaluates the suitability of stain protection treatments.

The surface treatments evaluated were selected for their suitability for application based on the following selection criteria:

4. Ease of application
5. Color change
6. Removal of staining substances

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## **DESCRIPTIONS OF PRODUCTS EVALUATED:**

### **Protective Water Repellents and Color Enhancement Products Evaluated:**

**Stand Off® Paver Kare® 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.

**Stand Off® SLX100 Water & Oil Repellent**—Combines water and oil repellency to prevent staining by waterborne or oily substances and many types of graffiti. This modified “neat” silane system offers invisible protection and low volatility.

**Stand Off® Impregnator**—Combines water and oil repellency to prevent staining by waterborne or oily substances. This special system offers invisible protection and low volatility. Impregnator is capable of penetrating and chemically bonding deep within the substrate to provide long-lasting protection against water- and oil-related staining and deterioration.

**Stand Off® Gloss ‘N Guard**—A highly durable, VOC-compliant, 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.

### **Products Evaluated for Stain Removal:**

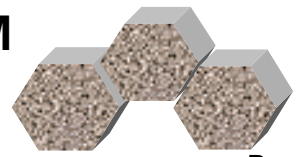
**Stand Off® Rinseless Cleaner**—Dilution: 1 part concentrate : 10 parts water

### **Food and Oil Products Evaluated:**

Pennzoil® 5W-30 Motor Oil (200°F)  
Total® Power Steering Fluid (200°F)  
Glide-A-Matic™ Automatic Transmission Fluid (200°F)  
Wesson® Vegetable Oil (200°F)  
Starbucks® Breakfast Blend Coffee (200°F)  
Sutter Home® Cabernet Sauvignon  
Spice Islands® Balsamic Vinegar  
French’s® Yellow Mustard



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## SAMPLE PREPARATION—Protective Stain Repellents:

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

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## TEST METHODS—Protective Stain Repellents:

### Oil and Water Surface Beading

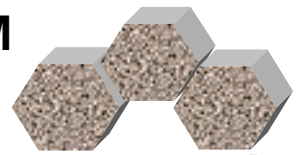
The food and oil products were applied to the test areas. The beading properties of the oils and liquids were visually evaluated within two minutes after application. The results are reported as a rating based on the angle of contact between the base of the droplet and the substrate. A rating of “1 or 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.

### Stain Resistance

The soiling agents were allowed to dwell on the treated and untreated substrate for times of 24 hours, 7 hours, 4 hours, 1 hour, and 10 minutes. The test areas were then cleaned with Rinseless 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.



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**TEST RESULTS: Surface Beading**

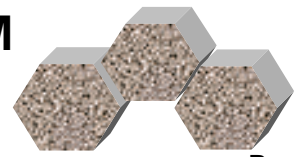
"Copper Canyon"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A
"Dove Gray"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A

N/A – This substance is not a free-flowing liquid.

Rating System:    1 & 2    Above Average  
                           3 & 4    Average  
                               5        Below Average



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**Surface Beading Continued**

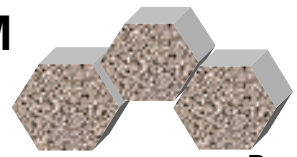
"Glacier White"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A
"Smoke Granite"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A

N/A – This substance is not a free-flowing liquid.

Rating System:   1 & 2   Above Average  
                       3 & 4   Average  
                       5       Below Average



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**Surface Beading Continued**

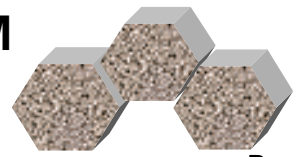
"Earth Brown"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A
"Ivory Sand"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A

N/A – This substance is not a free-flowing liquid.

Rating System:    1 & 2    Above Average  
                           3 & 4    Average  
                           5        Below Average



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**Surface Beading Continued**

"Crimson"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A
"Sienna"							
Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
Stand Off® Paver Kare® Paver Enhancer							
4	4	4	4	3	3	3	N/A
Stand Off® SLX100 Water & Oil Repellent							
2-3	2-3	2-3	2-3	1-2	1	1	N/A
Stand Off® Impregnator							
3	3	3	3	2	1	1	N/A
Stand Off® Gloss 'N Guard							
4	4	4	4	3-4	3-4	3-4	N/A
Untreated Control							
5	5	5	5	5	4	4	N/A

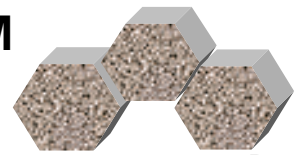
N/A – This substance is not a free-flowing liquid.

Rating System:   1 & 2   Above Average  
                       3 & 4   Average  
                       5       Below Average





# CONCRETE PAVER PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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## TEST RESULTS: Protective Stain Repellents

"Copper Canyon"								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	10%	10%	10%	10%	N/A	90%	100%*	95%*
7hr	10%	10%	10%	10%	N/A	90%	100%*	95%*
4hr	10%	10%	10%	10%	N/A	90%	100%*	95%*
1hr	10%	10%	10%	10%	N/A	95%	100%*	95%*
10min	10%	10%	10%	10%	N/A	100%	100%*	95%*
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	75%	75%	75%	75%	100%	90%	100%*	100%*
7hr	75%	75%	75%	75%	100%	90%	100%*	100%*
4hr	75%	75%	75%	75%	100%	90%	100%*	100%*
1hr	75%	75%	75%	75%	100%	95%	100%*	100%*
10min	75%	75%	75%	75%	100%	95%	100%*	100%*
<b>Stand Off® Impregnator</b>								
24hr	75%	75%	75%	75%	100%	90%	100%*	100%*
7hr	75%	75%	75%	75%	100%	90%	100%*	100%*
4hr	75%	75%	75%	75%	100%	90%	100%*	100%*
1hr	75%	75%	75%	75%	100%	95%	100%*	100%*
10min	80%	80%	80%	80%	100%	95%	100%*	100%*
<b>Stand Off® Gloss 'N Guard</b>								
24hr	100%	100%	100%	100%	100%*	100%*	100%*	100%*
7hr	100%	100%	100%	100%	100%*	100%*	100%*	100%*
4hr	100%	100%	100%	100%	100%	100%*	100%*	100%*
1hr	100%	100%	100%	100%	100%	100%	100%*	100%*
10min	100%	100%	100%	100%	100%	100%	100%*	100%*
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	N/A	85%	100%*	90%*
7hr	0%	0%	0%	0%	N/A	85%	100%*	90%*
4hr	0%	0%	0%	0%	N/A	85%	100%*	90%*
1hr	0%	0%	0%	0%	N/A	85%	100%*	90%*
10min	0%	0%	0%	0%	N/A	85%	100%*	100%*

% Removal of stain following maintenance cleaning.

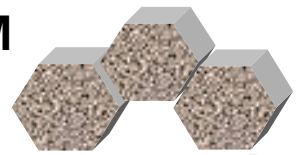
\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.





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**TEST RESULTS Continued: Protective Stain Repellents Continued**

"Dove Gray"								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	5%	5%	5%	5%	N/A	90%	100%*	100%*
7hr	5%	5%	5%	5%	N/A	90%	100%*	100%*
4hr	5%	5%	5%	5%	N/A	90%	100%*	100%*
1hr	5%	5%	5%	5%	N/A	90%	100%*	100%*
10min	5%	5%	5%	5%	N/A	90%	100%*	100%*
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	60%	60%	60%	60%	100%	95%	100%*	100%*
7hr	60%	60%	60%	60%	100%	99%	100%*	100%*
4hr	60%	60%	60%	60%	100%	100%	100%*	100%*
1hr	60%	60%	60%	60%	100%	100%	100%	100%
10min	60%	60%	60%	60%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>								
24hr	60%	60%	60%	60%	100%	85%	100%*	95%*
7hr	60%	60%	60%	60%	100%	90%	100%*	100%*
4hr	60%	60%	60%	60%	100%	95%	100%	100%*
1hr	60%	60%	60%	60%	100%	95%	100%	100%*
10min	60%	60%	60%	60%	100%	100%	100%	100%*
<b>Stand Off® Gloss 'N Guard</b>								
24hr	100%	100%	100%	100%	100%	100%	100%	100%
7hr	100%	100%	100%	100%	100%	100%	100%	100%
4hr	100%	100%	100%	100%	100%	100%	100%	100%
1hr	100%	100%	100%	100%	100%	100%	100%	100%
10min	100%	100%	100%	100%	100%	100%	100%	100%
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	N/A	85%	100%	90%*
7hr	0%	0%	0%	0%	N/A	85%	100%	95%*
4hr	0%	0%	0%	0%	N/A	85%	100%	100%*
1hr	0%	0%	0%	0%	N/A	85%	100%	100%*
10min	0%	0%	0%	0%	N/A	85%	100%	100%*

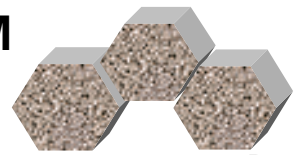
% Removal of stain following maintenance cleaning.

\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.



# CONCRETE PAVER PROGRAM LABORATORY REPORT



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**TEST RESULTS Continued: Protective Stain Repellents**

<b>“Glacier White”</b>								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	10%	10%	10%	10%	N/A	100%	100%	95%
7hr	10%	10%	10%	10%	N/A	100%	100%	95%
4hr	10%	10%	10%	10%	N/A	100%	100%	100%
1hr	10%	10%	10%	10%	N/A	100%	100%	100%
10min	10%	10%	10%	10%	N/A	100%	100%	100%
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	75%	75%	75%	75%	N/A	95%	100%	90%
7hr	75%	75%	75%	75%	N/A	95%	100%	95%
4hr	75%	75%	75%	75%	N/A	95%	100%	95%
1hr	75%	75%	75%	75%	N/A	100%	100%	98%
10min	75%	75%	75%	75%	N/A	100%	100%	100%
<b>Stand Off® Impregnator</b>								
24hr	80%	80%	80%	80%	100%	90%	100%	95%
7hr	80%	80%	80%	80%	100%	90%	100%	95%
4hr	80%	80%	80%	80%	100%	90%	100%	95%
1hr	80%	80%	80%	80%	100%	100%	100%	98%
10min	80%	80%	80%	80%	100%	100%	100%	100%
<b>Stand Off® Gloss ‘N Guard</b>								
24hr	100%	100%	100%	100%	100%	100%	100%	100%
7hr	100%	100%	100%	100%	100%	100%	100%	100%
4hr	100%	100%	100%	100%	100%	100%	100%	100%
1hr	100%	100%	100%	100%	100%	100%	100%	100%
10min	100%	100%	100%	100%	100%	100%	100%	100%
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	N/A	90%	100%	90%
7hr	0%	0%	0%	0%	N/A	90%	100%	90%
4hr	0%	0%	0%	0%	N/A	95%	100%	90%
1hr	0%	0%	0%	0%	N/A	100%	100%	95%
10min	0%	0%	0%	0%	N/A	100%	100%	95%

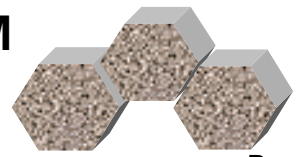
% Removal of stain following maintenance cleaning.

\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.



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**TEST RESULTS Continued: Protective Stain Repellents**

"Smoke Granite"								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
7hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
4hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
1hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
10min	0%	0%	0%	0%	N/A	N/A	100%*	100%*
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	60%	60%	60%	60%	100%	100%	100%*	95%*
7hr	60%	60%	60%	60%	100%	100%	100%*	95%*
4hr	60%	60%	60%	60%	100%	100%	100%*	95%*
1hr	60%	60%	60%	60%	100%	100%	100%*	98%*
10min	60%	60%	60%	60%	100%	100%	100%*	98%*
<b>Stand Off® Impregnator</b>								
24hr	60%	60%	60%	60%	100%	100%	100%*	100%*
7hr	60%	60%	60%	60%	100%	100%	100%*	100%*
4hr	60%	60%	60%	60%	100%	100%	100%*	100%*
1hr	60%	60%	60%	60%	100%	100%	100%*	100%*
10min	60%	60%	60%	60%	100%	100%	100%	100%*
<b>Stand Off® Gloss 'N Guard</b>								
24hr	100%	100%	100%	100%	100%	100%	100%*	100%*
7hr	100%	100%	100%	100%	100%	100%	100%*	100%*
4hr	100%	100%	100%	100%	100%	100%	100%*	100%*
1hr	100%	100%	100%	100%	100%	100%	100%*	100%*
10min	100%	100%	100%	100%	100%	100%	100%*	100%*
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
7hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
4hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
1hr	0%	0%	0%	0%	N/A	N/A	100%*	100%*
10min	0%	0%	0%	0%	N/A	N/A	100%*	100%*

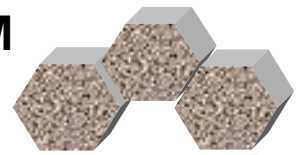
% Removal of stain following maintenance cleaning.

\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.



# CONCRETE PAVER PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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**TEST RESULTS Continued: Protective Stain Repellents**

"Earth Brown"								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	5%	5%	5%	5%	N/A	90%	100%*	98%*
7hr	5%	5%	5%	5%	N/A	90%	100%*	100%*
4hr	5%	5%	5%	5%	N/A	95%	100%*	100%*
1hr	5%	5%	5%	5%	N/A	95%	100%*	100%*
10min	5%	5%	5%	5%	N/A	95%	100%*	100%*
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	50%	50%	50%	50%	N/A	90%	100%*	100%*
7hr	50%	50%	50%	50%	N/A	90%	100%*	100%*
4hr	50%	50%	50%	50%	N/A	90%	100%*	100%*
1hr	50%	50%	50%	50%	N/A	90%	100%*	100%*
10min	50%	50%	50%	50%	N/A	90%	100%*	100%*
<b>Stand Off® Impregnator</b>								
24hr	60%	60%	60%	60%	100%	95%	100%*	100%*
7hr	60%	60%	60%	60%	100%	95%	100%*	100%*
4hr	60%	60%	60%	60%	100%	95%	100%*	100%*
1hr	60%	60%	60%	60%	100%	95%	100%*	100%*
10min	60%	60%	60%	60%	100%	100%	100%*	100%*
<b>Stand Off® Gloss 'N Guard</b>								
24hr	100%	100%	100%	100%	100%	100%	100%*	100%*
7hr	100%	100%	100%	100%	100%	100%	100%*	100%*
4hr	100%	100%	100%	100%	100%	100%	100%*	100%*
1hr	100%	100%	100%	100%	100%	100%	100%*	100%*
10min	100%	100%	100%	100%	100%	100%	100%*	100%*
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	N/A	90%	100%*	90%*
7hr	0%	0%	0%	0%	N/A	90%	100%*	90%*
4hr	0%	0%	0%	0%	N/A	90%	100%*	95%*
1hr	0%	0%	0%	0%	N/A	90%	100%*	95%*
10min	0%	0%	0%	0%	N/A	90%	100%*	95%*

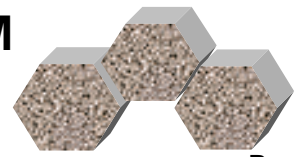
% Removal of stain following maintenance cleaning.

\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.



# CONCRETE PAVER PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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**TEST RESULTS Continued: Protective Stain Repellents**

"Ivory Sand"								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	10%	10%	10%	10%	N/A	100%	100%	100%*
7hr	10%	10%	10%	10%	N/A	100%	100%	100%*
4hr	10%	10%	10%	10%	N/A	100%	100%	100%*
1hr	10%	10%	10%	10%	N/A	100%	100%	100%*
10min	10%	10%	10%	10%	N/A	100%	100%	100%*
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	50%	50%	50%	50%	N/A	95%	100%*	100%*
7hr	50%	50%	50%	50%	N/A	95%	100%*	100%*
4hr	50%	50%	50%	50%	N/A	100%	100%*	100%*
1hr	50%	50%	50%	50%	N/A	100%	100%*	100%*
10min	50%	50%	50%	50%	N/A	100%	100%	100%
<b>Stand Off® Impregnator</b>								
24hr	60%	60%	60%	60%	100%	95%	100%*	100%*
7hr	60%	60%	60%	60%	100%	95%	100%*	100%*
4hr	60%	60%	60%	60%	100%	95%	100%*	100%*
1hr	60%	60%	60%	60%	100%	100%	100%*	100%*
10min	60%	60%	60%	60%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard</b>								
24hr	100%	100%	100%	100%	100%	100%	100%	100%
7hr	100%	100%	100%	100%	100%	100%	100%	100%
4hr	100%	100%	100%	100%	100%	100%	100%	100%
1hr	100%	100%	100%	100%	100%	100%	100%	100%
10min	100%	100%	100%	100%	100%	100%	100%	100%
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	N/A	90%	100%*	95%*
7hr	0%	0%	0%	0%	N/A	90%	100%*	95%*
4hr	0%	0%	0%	0%	N/A	90%	100%*	95%*
1hr	0%	0%	0%	0%	N/A	90%	100%*	95%*
10min	0%	0%	0%	0%	N/A	90%	100%*	95%*

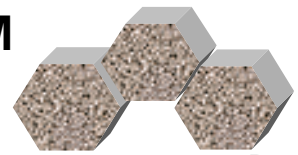
% Removal of stain following maintenance cleaning.

\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.



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PROSOCO, Inc.

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**TEST RESULTS Continued: Protective Stain Repellents**

"Crimson"								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	5%	5%	5%	5%	N/A	N/A	100%*	100%*
7hr	5%	5%	5%	5%	N/A	N/A	100%*	100%*
4hr	5%	5%	5%	5%	N/A	N/A	100%*	100%*
1hr	5%	5%	5%	5%	N/A	N/A	100%*	100%*
10min	5%	5%	5%	5%	N/A	N/A	100%*	100%*
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	50%	50%	50%	50%	N/A	95%	100%*	98%*
7hr	50%	50%	50%	50%	N/A	95%	100%*	98%*
4hr	50%	50%	50%	50%	N/A	95%	100%*	98%*
1hr	50%	50%	50%	50%	N/A	95%	100%*	100%*
10min	50%	50%	50%	50%	N/A	95%	100%*	100%*
<b>Stand Off® Impregnator</b>								
24hr	60%	60%	60%	60%	100%	90%	100%*	100%*
7hr	60%	60%	60%	60%	100%	90%	100%*	100%*
4hr	60%	60%	60%	60%	100%	95%	100%*	100%*
1hr	60%	60%	60%	60%	100%	98%	100%*	100%*
10min	60%	60%	60%	60%	100%	100%	100%*	100%*
<b>Stand Off® Gloss 'N Guard</b>								
24hr	100%	100%	100%	100%	100%*	100%*	100%*	100%*
7hr	100%	100%	100%	100%	100%*	100%*	100%*	100%*
4hr	100%	100%	100%	100%	100%	100%*	100%*	100%*
1hr	100%	100%	100%	100%	100%	100%	100%*	100%*
10min	100%	100%	100%	100%	100%	100%	100%*	100%*
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	100%	95%	100%*	95%*
7hr	0%	0%	0%	0%	100%	95%	100%*	95%*
4hr	0%	0%	0%	0%	100%	95%	100%*	95%*
1hr	0%	0%	0%	0%	100%	98%	100%*	98%*
10min	0%	0%	0%	0%	100%	100%	100%*	100%*

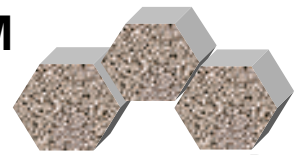
% Removal of stain following maintenance cleaning.

\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.



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PROSOCO, Inc.

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**TEST RESULTS Continued: Protective Stain Repellents**

"Sienna"								
	Motor Oil	Power Steering Fluid	Transmission Fluid	Vegetable Oil	Hot Coffee	Red Wine	Vinegar	Mustard
<b>Stand Off® Paver Kare® Paver Enhancer</b>								
24hr	5%	5%	5%	5%	N/A	100%	100%*	100%*
7hr	5%	5%	5%	5%	N/A	100%	100%*	100%*
4hr	5%	5%	5%	5%	N/A	100%	100%*	100%*
1hr	5%	5%	5%	5%	N/A	100%	100%*	100%*
10min	5%	5%	5%	5%	N/A	100%	100%	100%
<b>Stand Off® SLX100 Water &amp; Oil Repellent</b>								
24hr	50%	50%	50%	50%	N/A	100%	100%*	100%*
7hr	50%	50%	50%	50%	N/A	100%	100%*	100%*
4hr	50%	50%	50%	50%	N/A	100%	100%*	100%*
1hr	50%	50%	50%	50%	N/A	100%	100%*	100%*
10min	50%	50%	50%	50%	N/A	100%	100%	100%
<b>Stand Off® Impregnator</b>								
24hr	60%	60%	60%	60%	N/A	100%	100%*	100%*
7hr	60%	60%	60%	60%	N/A	100%	100%*	100%*
4hr	60%	60%	60%	60%	N/A	100%	100%*	100%*
1hr	60%	60%	60%	60%	N/A	100%	100%*	100%*
10min	60%	60%	60%	60%	N/A	100%	100%	100%
<b>Stand Off® Gloss 'N Guard</b>								
24hr	100%	100%	100%	100%	100%	100%	100%*	100%*
7hr	100%	100%	100%	100%	100%	100%	100%*	100%*
4hr	100%	100%	100%	100%	100%	100%	100%*	100%*
1hr	100%	100%	100%	100%	100%	100%	100%*	100%*
10min	100%	100%	100%	100%	100%	100%	100%*	100%*
<b>Untreated Control</b>								
24hr	0%	0%	0%	0%	N/A	100%	100%*	90%*
7hr	0%	0%	0%	0%	N/A	100%	100%*	90%*
4hr	0%	0%	0%	0%	N/A	100%	100%*	90%*
1hr	0%	0%	0%	0%	N/A	100%	100%*	95%*
10min	0%	0%	0%	0%	N/A	100%	100%*	95%*

% Removal of stain following maintenance cleaning.

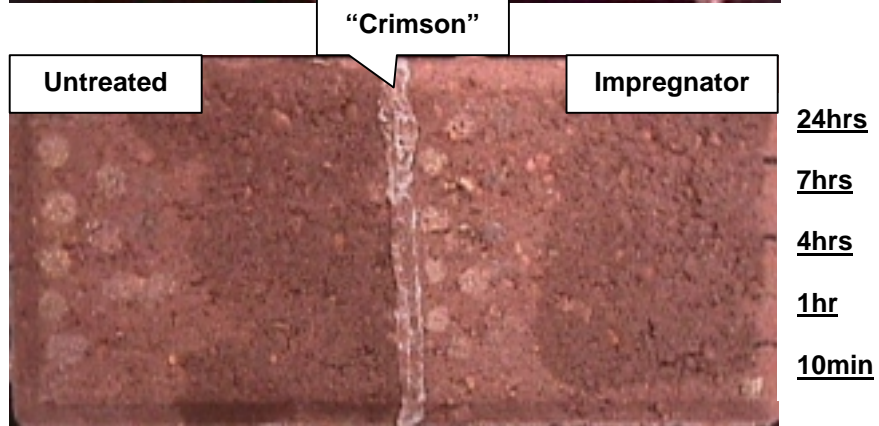
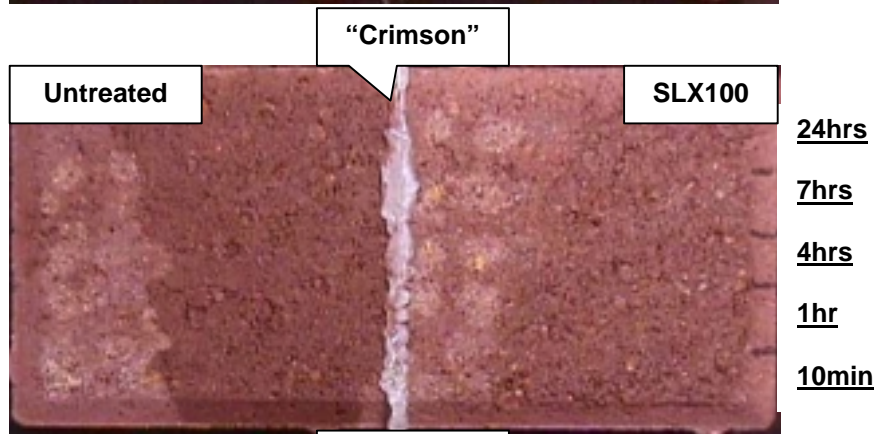
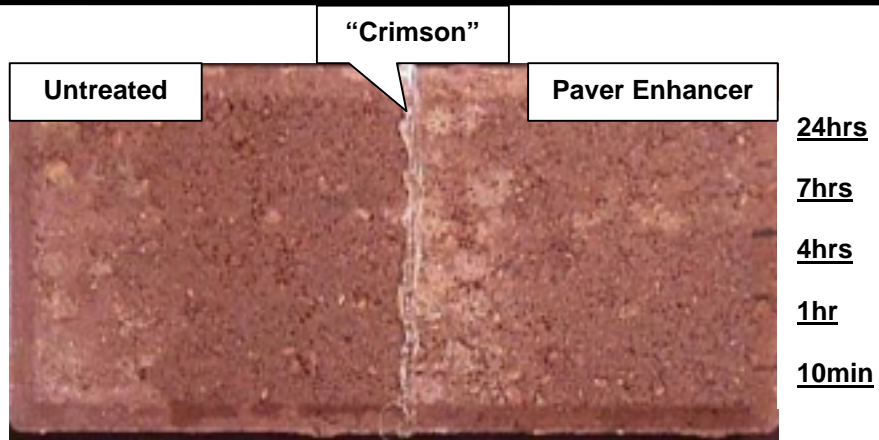
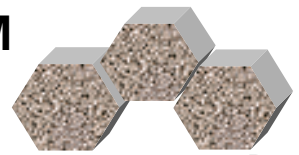
\* Indicates etching of surface treatment due to the acidic nature of the staining agent.

N/A Unable to make an accurate judgement due to overlapping of oils.





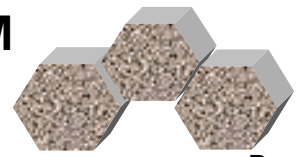
# CONCRETE PAVER PROGRAM LABORATORY REPORT







# CONCRETE PAVER PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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## CONCLUSION—Protective Stain Repellents:

Test results show that on all 8 types of pavers, Stand Off<sup>®</sup> Gloss 'N Guard performed the best in repelling various staining agents with only minor etching. Stand Off<sup>®</sup> SLX100 and Stand Off<sup>®</sup> Impregnator did not perform as well in resisting stains but did have the best beading characteristics. Stand Off<sup>®</sup> Paver Kare<sup>®</sup> Paver Enhancer worked only slightly better than the untreated control, with poor stain resistance and poor beading properties.

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## RECOMMENDATION—Protective Stain Repellents:

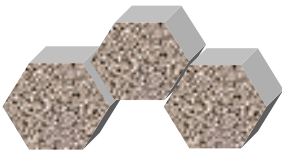
Based on test results, Stand Off<sup>®</sup> Gloss 'N Guard is the best for stain resistance and ease of removal. For the best beading properties, Stand Off<sup>®</sup> SLX100 Water & Oil Repellent and Stand Off<sup>®</sup> Impregnator can be recommended.

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 stain repellent and procedures for a particular project.

See product literature for additional application and product information.

Jason L. Anderson  
Technical Services Analyst

JLA/csm



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**Laboratory Report**

**Concrete Paver Program Evaluation**

**Western Brick Company  
Houston, TX**

**Project No. 0012-05 CPP**

***Prepared For:***

**Western Brick Company  
7620 Washington Ave  
Houston, TX 77007**

***Prepared By:***

