



# PALLET TAG PROGRAM LABORATORY REPORT



## **TABLE OF CONTENTS**

SAMPLES SUBMITTED .....	2
PURPOSE OF TEST .....	3
PRODUCTS EVALUATED .....	4

## **SECTION A – NEW CONSTRUCTION/MAINTENANCE CLEANING**

DESCRIPTION OF PRODUCTS EVALUATED .....	5
TEST METHOD.....	5
TEST RESULTS.....	6-7
PHOTOGRAPHS .....	7-8
CONCLUSIONS .....	8
RECOMMENDATIONS .....	9

## **SECTION B – LIMITING SURFACE ALTERATIONS**

DESCRIPTION OF PRODUCTS EVALUATED .....	10
TEST METHOD.....	10
TEST RESULTS.....	10-11
CONCLUSIONS .....	12
RECOMMENDATIONS .....	12

## **SECTION C – STAIN RESISTANCE**

DESCRIPTION OF PRODUCTS EVALUATED .....	13
TEST METHOD.....	14-15
TEST RESULTS.....	15-26
PHOTOGRAPHS OF STAIN REPELLENCY .....	27
CONCLUSIONS .....	28
RECOMMENDATIONS .....	28

## **ATTACHMENTS**

Product Data literature for all products evaluated



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 2

**FOR:** Melanie Macintosh  
**cc:** John Bourne  
Stephen Dean

**SUBJECT:** Quartzitec, Inc.

**DATE:** January 17, 2003

**PROJECT:** 0211-05 PTP

**SAMPLES SUBMITTED:** (8) different types of "QuartzStone<sup>®</sup> 2000 & 3000 series PMC tiles"

Sample	Color	Size
"Khaki"	Tan	11 <sup>3</sup> / <sub>4</sub> " x 11 <sup>3</sup> / <sub>4</sub> " x 1/4"
"Deep Blue"	Dark Blue	
"White Monument"	White	
"Tropical Blue"	Blue/Green	
"Desert Beige"	Beige	
"Taupe"	Brown	
"Olive"	Green	
"Linen Grey"	Gray	

Submitted by: Quartzitec, Inc.  
15 Turner Court  
Sussex, NB CANADA



# PALLET TAG PROGRAM LABORATORY REPORT



PROSOCO, Inc.

Page 3

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## PURPOSE OF TESTING:

Eight samples of QuartzStone<sup>®</sup> tile were submitted to PROSOCO, Inc.'s Testing Laboratory for an evaluation of suitable cleaning products and protective treatments.

**A. New Construction and Maintenance Cleaning** – Enviro Klean<sup>®</sup> 2010 All Surface Cleaner and Stand Off<sup>®</sup> Rinseless Cleaner were evaluated for removal of laboratory applied mortar and grout and to determine the most appropriate maintenance cleaner.

To simulate new construction soiling, all samples are placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall are positioned on top of each sample and filled with a wet mixture of either Ash Grove<sup>®</sup> Type N cementitious mortar or Laticrete Tri-Poly Fortified Unsanded Grout. The wet mortar or grout-filled cylinder is allowed to remain in contact with the QuartzStone<sup>®</sup> tile for 10 minutes before removal.

Heavy deposits of mortar/grout are removed with dry scraping after 24 hours. Prepared cleaning solutions are then evaluated for their effectiveness in removing residual mortar/grout staining after 7 days of curing.

**B. Limiting Surface Alteration Testing** - Enviro Klean<sup>®</sup> 2010 All Surface Cleaner and Stand Off<sup>®</sup> Rinseless Cleaner were tested to determine if a cleaning program implemented to remove excess mortar and related new construction soiling would alter the appearance of cleaned surfaces. Surface Alterations were evaluated visually based upon perceived discoloration or erosion/etching of the masonry unit. The following criteria were used:

Surface Finish Removal - the visual examination of the QuartzStone<sup>®</sup> comparing the surface finish of the untreated control surface to the surface finish cleaned with selected product(s).

Substrate Deterioration - the visual examination of the QuartzStone<sup>®</sup> comparing the surface of the untreated control to surfaces cleaned with selected product(s) looking for any potential erosion/digestion of the cultured marble.

Color Change - the visual examination comparing the color of the untreated control surface to color of surfaces cleaned with selected product(s).

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

**C. Stain Resistance** – Stand Off<sup>®</sup> Stone, Tile & Masonry Protector, Stand Off<sup>®</sup> Stain Barrier, Stand Off<sup>®</sup> Gloss 'N Guard WB, Stand Off<sup>®</sup> SLX 100 Water & Oil Repellent, and Stand Off<sup>®</sup> Impregnator were evaluated for their ability to resist staining agents applied to the submitted samples. Enviro Klean<sup>®</sup> 2010 All Surface Cleaner diluted with 10 parts fresh water was evaluated for its ability to remove the staining agents from the treated samples.



# PALLET TAG PROGRAM LABORATORY REPORT



## CLEANING AND LIMITING SURFACE ALTERATIONS PRODUCTS EVALUATED

Sample	Product	Dilution
All submitted QuartzStone <sup>®</sup> tiles	Enviro Klean <sup>®</sup> 2010 All Surface Cleaner	Concentrate
	Stand Off <sup>®</sup> Rinseless Cleaner	Concentrate

## STAIN REPELLENT PRODUCTS EVALUATED

Sample	Product	Dilution
All submitted QuartzStone <sup>®</sup> tiles	Stand Off <sup>®</sup> Stone, Tile & Masonry Protector	Concentrate
	Stand Off <sup>®</sup> Stain Barrier	
	Stand Off <sup>®</sup> Gloss 'N Guard WB	
	Stand Off <sup>®</sup> SLX100 Water & Oil Repellent	
	Stand Off <sup>®</sup> Impregnator	



# PALLET TAG PROGRAM LABORATORY REPORT



## **SECTION A –CLEANING**

### **DESCRIPTION OF PRODUCTS EVALUATED – New Construction Cleaning**

The new construction cleaning trials were conducted to determine the optimal cleaning/cure time combination to most efficiently remove Ash Grove<sup>®</sup> Type N mortar and Laticrete Tri-Poly Fortified Unsanded Grout from the submitted QuartzStone<sup>®</sup> samples.

Ash Grove<sup>®</sup> Type N cementitious mortar and Laticrete Tri-Poly Fortified Unsanded Grout were prepared in compliance with the manufacturers' instructions, applied to the QuartzStone<sup>®</sup> surface and allowed to cure for 7 days prior to cleaning. The removal of gray Ash Grove<sup>®</sup> Type N cementitious masonry cement mortar and Laticrete Tri-Poly Fortified Unsanded Grout 7 days of curing was visually evaluated.

**Enviro Klean<sup>®</sup> 2010 All Surface Cleaner** – An effective, safe alternative to acidic compounds for cleaning stone, tile, and masonry surfaces. 2010 All Surface Cleaner is concentrated for tough industrial cleaning jobs yet is water-rinsable and contains no harsh acids, caustics, or solvents. Can be used in concentrate or diluted with up to 10 parts water. Apply by brush or low-pressure spray.

**Stand Off<sup>®</sup> Rinseless Cleaner** - A concentrated neutral cleaner for general cleaning of masonry, ceramic tile, grout, natural stone, and many other hard surfaces. Can also be used for maintaining surfaces protected with Stand Off<sup>®</sup> protective treatments. Ideal for interior or exterior applications for removing stains and soiling. Apply by brush or low-pressure spray.

### **TEST METHOD – New Construction Cleaning (Removal of Mortar/Grout)**

Chemical cleaners were evaluated using the following procedure:

1. Prewet the surface with water.
2. Apply the cleaner.
3. Allow the appropriate dwell time, as specified.
  - 2010 All Surface Cleaner.....3 minutes
  - Rinseless Cleaner .....3 minutes
4. Rinse thoroughly.



# PALLET TAG PROGRAM LABORATORY REPORT



**Test Results - New Construction Cleaning (Mortar/Grout Soiling)**

**% Removal**

**“Khaki”**

<b>PRODUCT</b>	<b><u>Type “N” Mortar</u></b>	<b><u>Grout</u></b>
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%

**“Deep Blue”**

<b>PRODUCT</b>	<b><u>Type “N” Mortar</u></b>	<b><u>Grout</u></b>
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%

**“White Monument”**

<b>PRODUCT</b>	<b><u>Type “N” Mortar</u></b>	<b><u>Grout</u></b>
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%

**“Tropical Blue”**

<b>PRODUCT</b>	<b><u>Type “N” Mortar</u></b>	<b><u>Grout</u></b>
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%

**“Desert Beige”**

<b>PRODUCT</b>	<b><u>Type “N” Mortar</u></b>	<b><u>Grout</u></b>
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%

**“Taupe”**

<b>PRODUCT</b>	<b><u>Type “N” Mortar</u></b>	<b><u>Grout</u></b>
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%



# PALLET TAG PROGRAM LABORATORY REPORT



## Test Results - New Construction Cleaning (Mortar/Grout Soiling) (Cont.)

### “Olive”

PRODUCT	Type “N” Mortar	Grout
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%

### “Linen Gray”

PRODUCT	Type “N” Mortar	Grout
Enviro Klean® All Surface Cleaner	100%	100%
Stand Off® Rinseless Cleaner	100%	100%

## PHOTOGRAPHS – Cleaning

### “Taupe”





**PHOTOGRAPHS – Cleaning**

**“Tropical Blue”**



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**CONCLUSIONS - Cleaning:**

Both cleaners performed well in removing the mortar and grout soils even after allowing the mortar/grout to remain on the surface of the QuartzStone<sup>®</sup> for 7 days under ideal curing conditions.

To facilitate easier removal of excess mortar or grout while minimizing any potential surface alterations, clean within 7 days of construction.





# PALLET TAG PROGRAM LABORATORY REPORT



## RECOMMENDED PRODUCTS AND DILUTIONS – CLEANING

Recommendations for cleaning for each type of QuartzStone<sup>®</sup> tile submitted by Quartzitec Inc., Sussex, New Brunswick, Canada are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar or grout.

Note: The products and dilutions recommended below can also be recommended for maintenance cleaning.

Type	Color	New Construction Cleaning (Type N mortar or Laticrete Grout, 7 day)
QuartzStone <sup>®</sup>	“Khaki”	Enviro Klean <sup>®</sup> 2010 All Surface Cleaner (concentrate) OR Stand Off <sup>®</sup> Rinseless Cleaner (concentrate)
	“Deep Blue”	
	“White Monument”	
	“Tropical Blue”	
	“Desert Beige”	
	“Taupe”	
	“Olive”	
	“Linen Grey”	

The most appropriate cleaner and dilution should be determined on the specific job-site, and will be dependent primarily on the nature and severity of soiling present at that location.

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



# PALLET TAG PROGRAM LABORATORY REPORT



**SECTION B – Limiting Surface Alterations:**

**DESCRIPTION OF PRODUCTS EVALUATED – Surface Alterations:**

**Enviro Klean® 2010 All Surface Cleaner** – An effective, safe alternative to acidic compounds for cleaning stone, tile, and masonry surfaces. 2010 All Surface Cleaner is concentrated for tough industrial cleaning jobs yet is water-rinsable and contains no harsh acids, caustics, or solvents. Can be used in concentrate or diluted with up to 10 parts water. Apply by brush or low-pressure spray.

**Stand Off® Rinseless Cleaner** - A concentrated neutral cleaner for general cleaning of masonry, ceramic tile, grout, natural stone, and many other hard surfaces. Can also be used for maintaining surfaces protected with Stand Off® protective treatments. Ideal for interior or exterior applications for removing stains and soiling. Apply by brush or low-pressure spray.

**TEST METHOD – Limiting Surface Alteration Testing:**

Chemical cleaners were evaluated using the following procedure:

1. Wet the surface with water.
2. Apply the cleaner.
3. Allow the appropriate dwell time, as specified:
  - 2010 All Surface Cleaner.....3 minutes
  - Rinseless Cleaner .....3 minutes
4. Rinse thoroughly.

**Limiting Surface Alteration Results:**

Substrate: QuartzStone®		Color: "Khaki"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0
Substrate: QuartzStone®		Color: "Deep Blue"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0

Scale used for reporting results of all categories

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



# PALLET TAG PROGRAM LABORATORY REPORT



**Limiting Surface Alteration Results (cont.):**

<b>Substrate:</b> QuartzStone®		<b>Color:</b> "White Monument"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0
<b>Substrate:</b> QuartzStone®		<b>Color:</b> "Tropical Blue"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0
<b>Substrate:</b> QuartzStone®		<b>Color:</b> "Desert Beige"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0
<b>Substrate:</b> QuartzStone®		<b>Color:</b> "Taupe"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0
<b>Substrate:</b> QuartzStone®		<b>Color:</b> "Olive"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0
<b>Substrate:</b> QuartzStone®		<b>Color:</b> "Linen Grey"			
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Enviro Klean® 2010 All Surface Cleaner	Concentrate	0	0	0	0
Stand Off® Rinseless Cleaner	Concentrate	0	0	0	0

Scale used for reporting results of all categories	
0 – no change	3 – heavy
1 – slight	4 – excessive
2 – moderate	



# PALLET TAG PROGRAM LABORATORY REPORT



## CONCLUSIONS – Surface Alterations

Test results show that neither Enviro Klean® 2010 All Surface Cleaner nor Stand Off® Rinseless Cleaner caused any type of surface alterations on the submitted QuartzStone® samples.

## RECOMMENDED PRODUCTS AND DILUTIONS – LIMITING SURFACE ALTERATIONS

Recommendations for limiting surface alterations for each type of QuartzStone® tile submitted by Quartzitec Inc., Sussex, New Brunswick, Canada are provided in the chart below. Recommendations are based on the optimum dilution for removal of mortar and grout while limiting surface alterations.

Type	Color	Limiting Surface Alterations
QuartzStone®	“Khaki”	Enviro Klean® 2010 All Surface Cleaner (concentrate) OR Stand Off® Rinseless Cleaner (concentrate)
	“Deep Blue”	
	“White Monument”	
	“Tropical Blue”	
	“Desert Beige”	
	“Taupe”	
	“Olive”	
	“Linen Grey”	

The most appropriate cleaner and dilution should be determined on the specific job-site, and will be dependent primarily on the nature and severity of soiling present at that location.

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



**SECTION C – STAIN RESISTANCE**

**DESCRIPTION OF PRODUCTS EVALUATED**

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

**Products Evaluated for Stain Protection:**

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

**Stand Off® Stain Barrier** - A penetrating oil and stain repellent. Easy-to-use. Low-VOC, low-odor protective treatment improves the stain resistance and simplifies maintenance cleaning of interior and exterior stone, quarry tile, concrete and masonry surfaces.

**Stand Off® Gloss 'N Guard WB** – A highly durable polyurethane protective coating for tile, pavers, terrazzo and other polished/unpolished masonry. Dries to a high-gloss finish, which enhances the natural beauty of the masonry. Creates a lasting protective shield of beauty and durability.

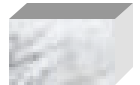
**Stand Off® SLX 100 Water & Oil Repellent** - A modified, “neat” silane system that offers invisible protection and low volatility. SLX 100 protects concrete and masonry surfaces against water and waterborne contaminants. In addition to water repellency SLX 100 offers stain resistance and chloride screen.

**Stand Off® Impregnator** – A deeply penetrating, invisible protective oil and stain repellent. Small molecular structure ensures deep penetration and chemically bonds within the structure to provide long-lasting protection against water and oil-related staining. Low odor. Lets treated surfaces “breathe” does not trap moisture.

**Staining Agents Evaluated:**

**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 Resistance**

Samples were cleaned with Enviro Klean® 2010 All Surface Cleaner diluted with 10 parts water, allowed to dry and absorb atmospheric moisture for 24 hours prior to treatment. The method of application for protective treatments consisted of a wet-on-wet saturating brush application. Samples were allowed to cure for at least 2 weeks prior to testing.

**TEST METHOD – Stain Resistance**

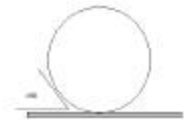
**Surface Beading Evaluation**

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

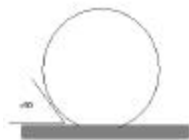
Note: Non-free flowing staining agents such as ketchup and mustard are applied in a blob and not evaluated for their beading properties.

Rating System (1-5)

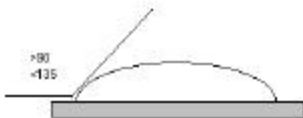
- 1. No wetting of contact area (no darkening); angle less than 90°



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



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



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



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





# PALLET TAG PROGRAM LABORATORY REPORT



**TEST METHODS: Continued**

**Stain Resistance**

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

**TEST RESULTS – Surface Beading**

<b>“Khaki”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3

<b>“Deep Blue”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3



# PALLET TAG PROGRAM LABORATORY REPORT



**TEST RESULTS – Surface Beading (cont.)**

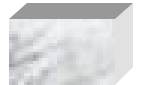
<b>“White Monument”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3

<b>“Tropical Blue”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3





# PALLET TAG PROGRAM LABORATORY REPORT



**TEST RESULTS – Surface Beading (cont.)**

<b>“Desert Beige”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3

<b>“Taupe”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3



# PALLET TAG PROGRAM LABORATORY REPORT



**TEST RESULTS – Surface Beading (cont.)**

<b>“Olive”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3

<b>“Linen Grey”</b>						
	<b>Untreated Control</b>	<b>STMP</b>	<b>Stain Barrier</b>	<b>Gloss N’ Guard WB</b>	<b>SLX 100</b>	<b>Impregnator</b>
<b>Coca Cola</b>	3	3	3	3	3	3
<b>Ketchup</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Mustard</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Red Wine</b>	3	3	3	3	3	3
<b>Balsamic Vinegar</b>	3	3	3	3	3	3
<b>Soy Sauce</b>	3	3	3	3	3	3
<b>Olive Oil</b>	4	3	3	3	3	3
<b>Wesson Oil</b>	4	3	3	3	3	3
<b>Hot Coffee</b>	3	3	3	3	3	3



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 19

**TEST RESULTS – Stain Resistance**

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

% Removal

**“Khaki”**

<b>Untreated Control</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	80%	80%	75%	50%	60%	90%	<1%	<1%	90%
<b>4 hour</b>	90%	90%	75%	50%	80%	90%	<1%	<1%	90%
<b>1 hour</b>	100%	100%	90%	60%	90%	90%	20%	20%	90%
<b>10 min.</b>	100%	100%	90%	60%	90%	90%	20%	20%	90%
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Stain Barrier</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%	80%	100%	100%	90%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	90%	50%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	75%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 20

**TEST RESULTS – Stain Resistance (cont.)**

% Removal

**“Deep Blue”**

<b>Untreated Control</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	80%	80%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	90%	90%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Stain Barrier</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	90%	90%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	80%	80%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 21

**TEST RESULTS – Stain Resistance (cont.)**

% Removal

**“White Monument”**

<b>Untreated Control</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	80%	60%	60%	80%	90%	50%	50%	80%
<b>4 hour</b>	100%	100%	100%	60%	100%	90%	75%	75%	90%
<b>1 hour</b>	100%	100%	100%	60%	100%	90%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	75%	100%	90%	100%	100%	100%
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	600%	100%	100%	100%	100%	100%	90%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Stain Barrier</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	60%	60%	80%	90%	100%	100%	80%
<b>4 hour</b>	100%	100%	80%	75%	90%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	60%	100%	100%	100%	100%	100%	100%	90%
<b>4 hour</b>	100%	60%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	60%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	75%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	90%	90%	95%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	60%	100%	100%	100%	100%	100%	90%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 22

**TEST RESULTS – Stain Resistance (cont.)**

% Removal

**“Tropical Blue”**

<b>Untreated Control</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	90%*	100%*	90*	60%*	80%*	80%*	<1%	<1%	75%*
<b>4 hour</b>	90%*	100%*	100%*	60%*	80%*	80%*	<1%	<1%	75%*
<b>1 hour</b>	100%*	100%*	100%*	60%*	80%*	80%*	<1%	<1%	75%*
<b>10 min.</b>	100%*	100%*	100%*	80%*	80%*	80%*	<1%	<1%	75%*
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%*	100%*	80%*	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%*	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%*	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%*	100%	100%	100%	100%	100%
<b>Stand Off® Stain Barrier</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%*	100%*	80%*	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	75%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	75%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	60%	100%	100%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	60%	100%	100%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	60%	100%	100%	100%*	100%	100%	100%	100%
<b>10 min.</b>	100%	80%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%*	100%*	100%*	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%*	100%*	90%*	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 23

**TEST RESULTS – Stain Resistance (cont.)**

% Removal

**“Desert Beige”**

<b>Untreated Control</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	60%	50%	75%	80%	<1%	<1%	80%
<b>4 hour</b>	100%	100%	60%	60%	75%	80%	<1%	<1%	90%
<b>1 hour</b>	100%	100%	80%	60%	75%	80%	<1%	<1%	100%
<b>10 min.</b>	100%	100%	100%	70%	75%	80%	<1%	<1%	100%
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Stain Barrier</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	90%	90%	75%	100%	100%	90%	100%	90%
<b>4 hour</b>	100%	100%	100%	75%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	90%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	90%*	80%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	90%*	80%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	100%*	80%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%*	80%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	80%	100%*	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 24

**TEST RESULTS – Stain Resistance (cont.)**

% Removal

**“Taupe”**

<b>Untreated Control</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	80%	80%	60%*	60%	80%*	100%	<1%	<1%	80%
<b>4 hour</b>	80%	80%	60%*	60%	90%*	100%	<1%	<1%	80%
<b>1 hour</b>	90%	90%	75%*	60%	90%*	100%	<1%	<1%	80%
<b>10 min.</b>	100%	100%	80%*	60%	90%*	100%	<1%	<1%	80%
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%*	100%*	90%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%*	90%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Stain Barrier</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	50%*	75%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%*	80%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	75%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	80%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%*	100%*	90%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%*	100%*	90%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%*	100%*	100%	100%*	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	90%*	90%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	100%*	90%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%*	90%	100%*	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%*	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent





# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 25

**TEST RESULTS – Stain Resistance (cont.)**

% Removal

“Olive”

<b>Untreated Control</b>									
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
<b>24 hr</b>	100%	100%*	100%*	50%*	80%*	100%	<1%	<1%	100%
<b>4 hour</b>	100%	100%*	100%*	50%*	80%*	100%	<1%	<1%	100%
<b>1 hour</b>	100%	100%*	100%*	60%*	90%*	100%	<1%	<1%	100%
<b>10 min.</b>	100%	100%	100%	75%	100%	100%	<1%	<1%	100%
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
<b>24 hr</b>	100%	100%*	90%*	75%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%*	100%*	75%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	75%	100%*	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>Stand Off® Stain Barrier</b>									
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
<b>24 hr</b>	100%	100%*	90%*	75%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%*	90%*	75%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	100%	80%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
<b>24 hr</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	75%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	80%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
<b>24 hr</b>	100%	100%*	90%*	100%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%*	100%*	100%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%*	100%*	100%	100%*	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	Coca Cola	Ketchup	Mustard	Red Wine	Balsamic Vinegar	Soy Sauce	Olive Oil	Wesson Oil	Hot Coffee
<b>24 hr</b>	100%	100%*	100%*	80%	100%*	100%	100%	100%	100%
<b>4 hour</b>	100%	100%*	100%*	80%	100%*	100%	100%	100%	100%
<b>1 hour</b>	100%	100%*	100%*	90%	100%*	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent



# PALLET TAG PROGRAM LABORATORY REPORT



**PROSOCO, Inc.**

Page 26

**TEST RESULTS – Stain Resistance (cont.)**

% Removal

**“Linen Grey”**

<b>Untreated Control</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	80%	90%*	60%*	50%	80%*	100%	<1%	<1%	80%
<b>4 hour</b>	80%	100%*	60%*	60%	80%*	100%	<1%	<1%	80%
<b>1 hour</b>	90%	100%	80%*	60%	80%*	100%	<1%	<1%	80%
<b>10 min.</b>	100%	100%	90%*	60%	80%*	100%	<1%	<1%	80%
<b>Stand Off® Stone, Tile, &amp; Masonry Protector</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%*	90%*	80%	90%*	100%	100%	100%	80%
<b>4 hour</b>	100%	100%	100%*	80%	100%*	100%	100%	100%	90%
<b>1 hour</b>	100%	100%	100%	80%	100%*	100%	100%	100%	90%
<b>10 min.</b>	100%	100%	100%	90%	100%*	100%	100%	100%	90%
<b>Stand Off® Stain Barrier</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	90%*	80%	90%*	100%	80%	80%	80%
<b>4 hour</b>	100%	100%	100%	80%	90%*	100%	100%	100%	90%
<b>1 hour</b>	100%	100%	100%	80%	100%	100%	100%	100%	90%
<b>10 min.</b>	100%	100%	100%	90%	100%	100%	100%	100%	100%
<b>Stand Off® Gloss 'N Guard WB</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>4 hour</b>	100%	100%	60%	100%	100%	100%	100%	100%	100%
<b>1 hour</b>	100%	100%	75%	100%	100%	100%	100%	100%	100%
<b>10 min.</b>	100%	100%	80%	100%	100%	100%	100%	100%	100%
<b>Stand Off® SLX 100 Water &amp; Oil Repellent</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	100%	100%	90%*	80%	100%*	100%	100%	100%	80%
<b>4 hour</b>	100%	100%	100%*	80%	100%*	100%	100%	100%	90%
<b>1 hour</b>	100%	100%	100%	80%	100%*	100%	100%	100%	90%
<b>10 min.</b>	100%	100%	100%	80%	100%*	100%	100%	100%	100%
<b>Stand Off® Impregnator</b>									
	<b>Coca Cola</b>	<b>Ketchup</b>	<b>Mustard</b>	<b>Red Wine</b>	<b>Balsamic Vinegar</b>	<b>Soy Sauce</b>	<b>Olive Oil</b>	<b>Wesson Oil</b>	<b>Hot Coffee</b>
<b>24 hr</b>	90%	100%*	90%*	80%	100%*	100%	100%	100%	80%
<b>4 hour</b>	100%	100%*	100%*	80%	100%*	100%	100%	100%	90%
<b>1 hour</b>	100%	100%	100%	80%	100%*	100%	100%	100%	90%
<b>10 min.</b>	100%	100%	100%	80%	100%*	100%	100%	100%	100%

% Removal of staining agent

\* Indicates etching due to acidic staining agent

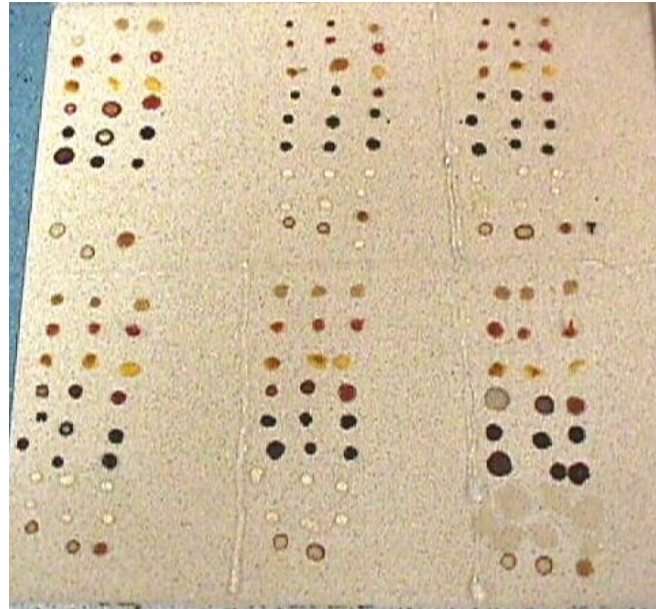


# PALLET TAG PROGRAM LABORATORY REPORT

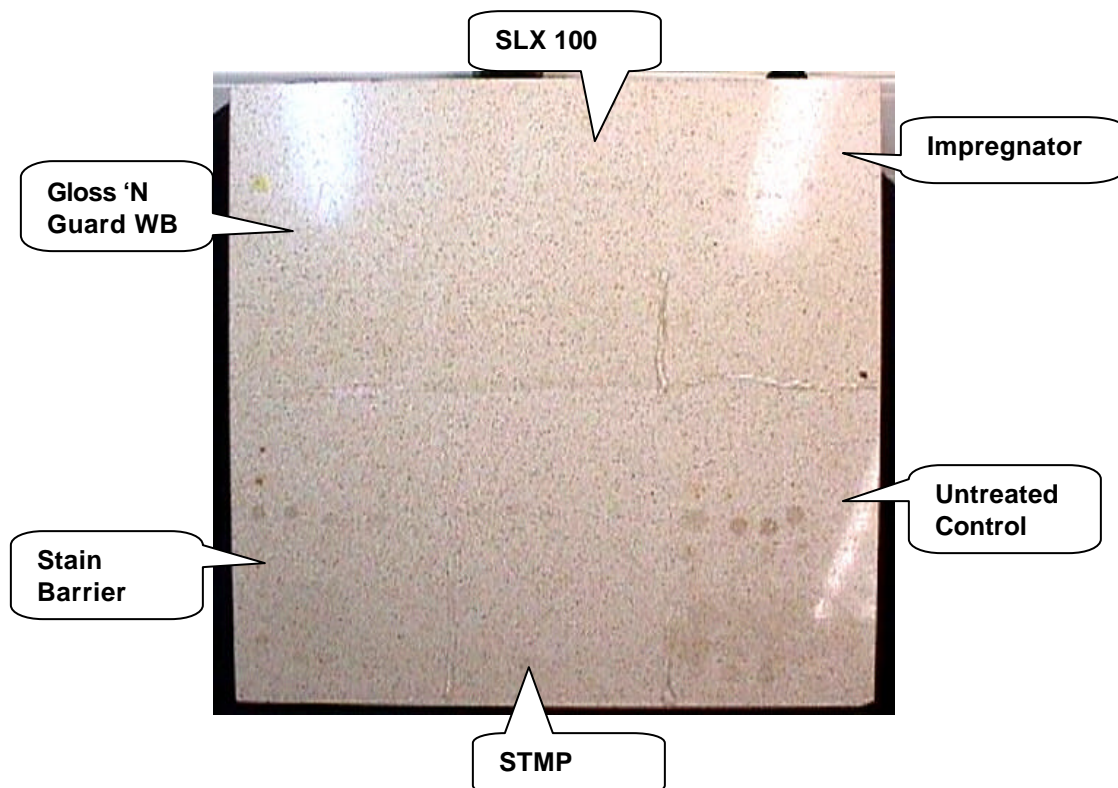


## PHOTOGRAPHS - Stain Resistance

“Desert Beige” with stain agents applied



“Desert Beige after stain removal”





# PALLET TAG PROGRAM LABORATORY REPORT



## CONCLUSIONS – Stain Resistance

Based upon laboratory evaluations, all of the treatments evaluated were effective in repelling the staining agents from the submitted QuartzStone<sup>®</sup>. None of the applied treatments altered the appearance of the QuartzStone<sup>®</sup> in any way.

## RECOMMENDATIONS – STAIN RESISTANCE

Recommendations for stain resistance treatment for each type of QuartzStone<sup>®</sup> tile submitted by Quartzitec Inc., Sussex, New Brunswick, Canada are provided in the charts below. Recommendations are based on the treatments that proved most effective for providing stain repellency on all types submitted.

Sample	Stain Repellent	Maintenance Cleaner
“Khaki”	Stand Off <sup>®</sup> Stone, Tile, & Masonry Protector OR Stand Off <sup>®</sup> Stain Barrier OR Stand Off <sup>®</sup> Gloss ‘N Guard WB OR Stand Off <sup>®</sup> SLX 100 OR Stand Off <sup>®</sup> Impregnator	Enviro Klean <sup>®</sup> 2010 All Surface Cleaner (1:10)
“Deep Blue”		
“White Monument”		
“Tropical Blue”		
“Desert Beige”		
“Taupe”		
“Olive”		
“Linen Grey”		

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 procedure for a particular project. See product literature for application and product information.

Courtney A. Williams

CAW/



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*Laboratory Report*

## **Pallet Tag Program Evaluation**

**Quartzitec, Inc.  
Sussex, New Brunswick  
Canada**

*Project No. 0211-05 PTP*

*Prepared For:*

**Quartzitec, Inc.  
15 Turner Court  
Sussex, New Brunswick  
Canada**

*Prepared By:*



***PROSOCO, Inc.  
January 2003***