Pallet Tag Program
Laboratory Report

Polycor
Quebec, Canada

Project No. 2010-09 PTP

Prepared For:

PROSOCO

Prepared By:

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AMT Laboratories

November 2020

LABORATORY REPORT

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SUBJECT: Polycor
Quebec, Canada
Pallet Tag Evaluation

DATE: November 24, 2020
PROJECT: 2010-09 PTP

SAMPLES SUBMITTED:

Type	Name	Color	Finish	Size
Granite	"BETHEL WHITE®"	Black and White	Flamed	12" x 12" x 1"
Granite	"JAY WHITE™"	Black and White	Flamed	12" x 12" x 1"
Granite	"SAINT SEBASTIEN™"	Black, White, and Brown	Flamed	12" x 12" x 1"

SUBMITTED BY: Frederic Bureau
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PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted samples.
- To determine the most appropriate PROSOCO, Inc. maintenance cleaner(s) for the submitted samples.
- To evaluate the color and sheen enhancement characteristics of Paver Kare® Paver Enhancer on the submitted samples.
- To determine the most appropriate PROSOCO, Inc. water repellent for the submitted samples.
- To determine the effectiveness of appropriate PROSOCO, Inc. products in preventing the penetration of, and simplifying the removal of, graffiti staining on the submitted samples.
- To determine the effectiveness of appropriate PROSOCO, Inc. products in preventing food and oil staining on the submitted samples.

PRODUCTS EVALUATED:

New Construction Cleaning	Dilution:
Sure Klean® Light Duty Concrete Cleaner	1:2; 1:3
Sure Klean® Vana Trol®	1:6; 1:8
Enviro Klean® Safety Klean	1:2, 1:3

Maintenance Cleaning	Dilution:
Enviro Klean® 2010 All Surface Cleaner	1:10
Enviro Klean® Klean 'N Release Cleaner	1:10

Color and Sheen Enhancement	Dilution:
Paver Kare® Paver Enhancer	N/A*

Water Repellency	Dilution:
PROSOCO® SL100 Water Repellent	N/A*
PROSOCO® SLX100® Water & Oil Repellent	N/A*
Paver Kare® Paver Enhancer	N/A*
PROSOCO® Saltguard®	N/A*
PROSOCO® Saltguard® VOC	N/A*

Graffiti Resistance	Dilution:
Defacer Eraser® Sacrificial Coating SC-1	N/A*

Graffiti Removal	Dilution:
Enviro Klean® SafStrip®	N/A*
Defacer Eraser® Graffiti Remover	N/A*

Stain Resistance	Dilution:
PROSOCO® SLX100® Water & Oil Repellent	N/A*
Stand Off® Stone, Tile & Masonry Protector (STMP)	N/A*

***NOTE: Per the product data sheet instructions, only use the product in concentrate. Do not dilute.**

TEST METHODS: New Construction Cleaning

Sure Klean® Light Duty Concrete Cleaner, Sure Klean® Vana Trol®, and Enviro Klean® Safety Klean were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the uncleaned surface of the natural stone.

Surface Finish Removal is the visual examination of the sample comparing the surface finish of the uncleaned surface to the surface finish cleaned with selected product(s) at given dilutions.

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

Color Change is the visual examination comparing the color of the uncleaned surface to the color of surfaces cleaned with selected products at given dilutions.

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 both categories:

0 – **No change** compared to uncleaned surface
1 – **Slight change** compared to uncleaned surface
2 – **Moderate change** compared to uncleaned surface
3 – **Significant change** compared to uncleaned surface

Cleaning Procedure:

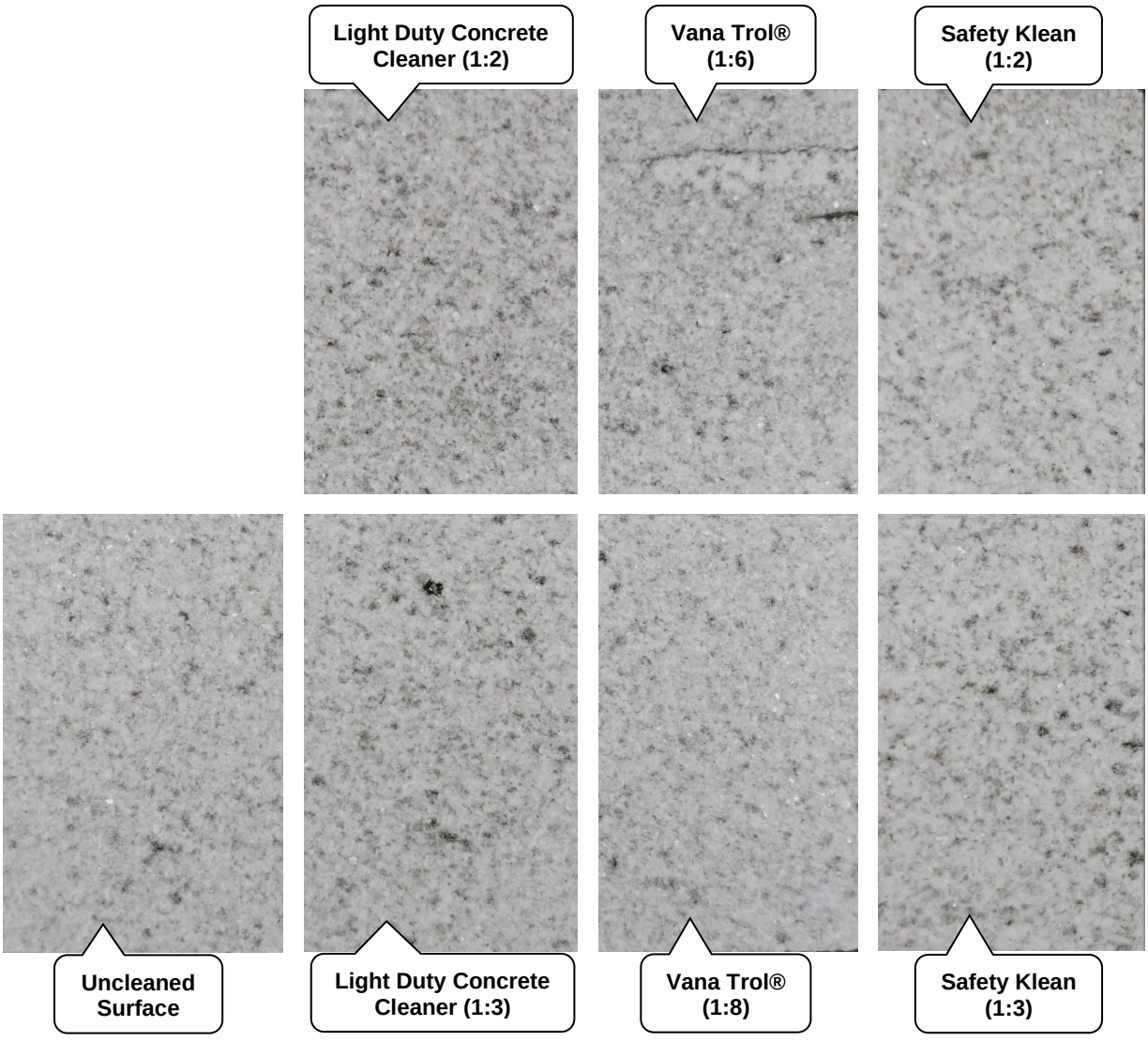
1. Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Data Sheet.
2. Allow for an appropriate dwell time:
   Light Duty Concrete Cleaner.....5 minutes
   Vana Trol®.....5 minutes
   Safety Klean.....5 minutes
3. Reapply cleaning solution; do not let cleaner dry into natural stone.
4. Rinse thoroughly with plenty of fresh water.*
5. Allow the sample to dry for at least 18 hours and visually examine.
6. Compare the uncleaned surfaces to the cleaned surfaces for the best match.

***Rinsing Equipment –** Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45 degree fan spray tip was used for rinsing.

TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning

Finish: Flamed	**Name:** "BETHEL WHITE®"				
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	0	0	0	0
Light Duty Concrete Cleaner	1:3	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
Safety Klean	1:2	0	0	0	0
Safety Klean	1:3	0	0	0	0

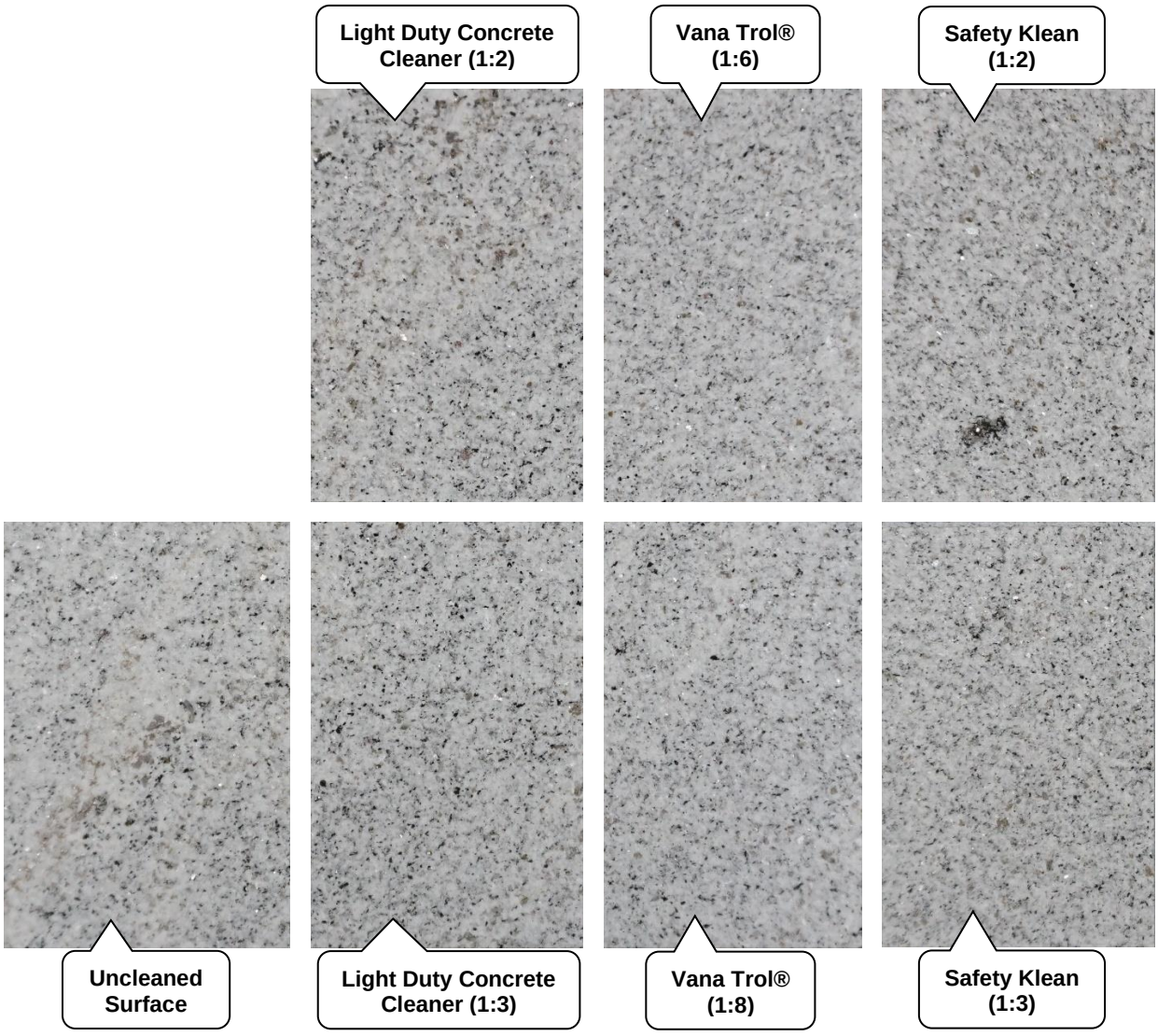
"BETHEL WHITE®" Flamed Granite After Cleaning



TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning (cont.)

Finish: Flamed	**Name:** "JAY WHITE™"				
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	0	0	0	0
Light Duty Concrete Cleaner	1:3	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
Safety Klean	1:2	0	0	0	0
Safety Klean	1:3	0	0	0	0

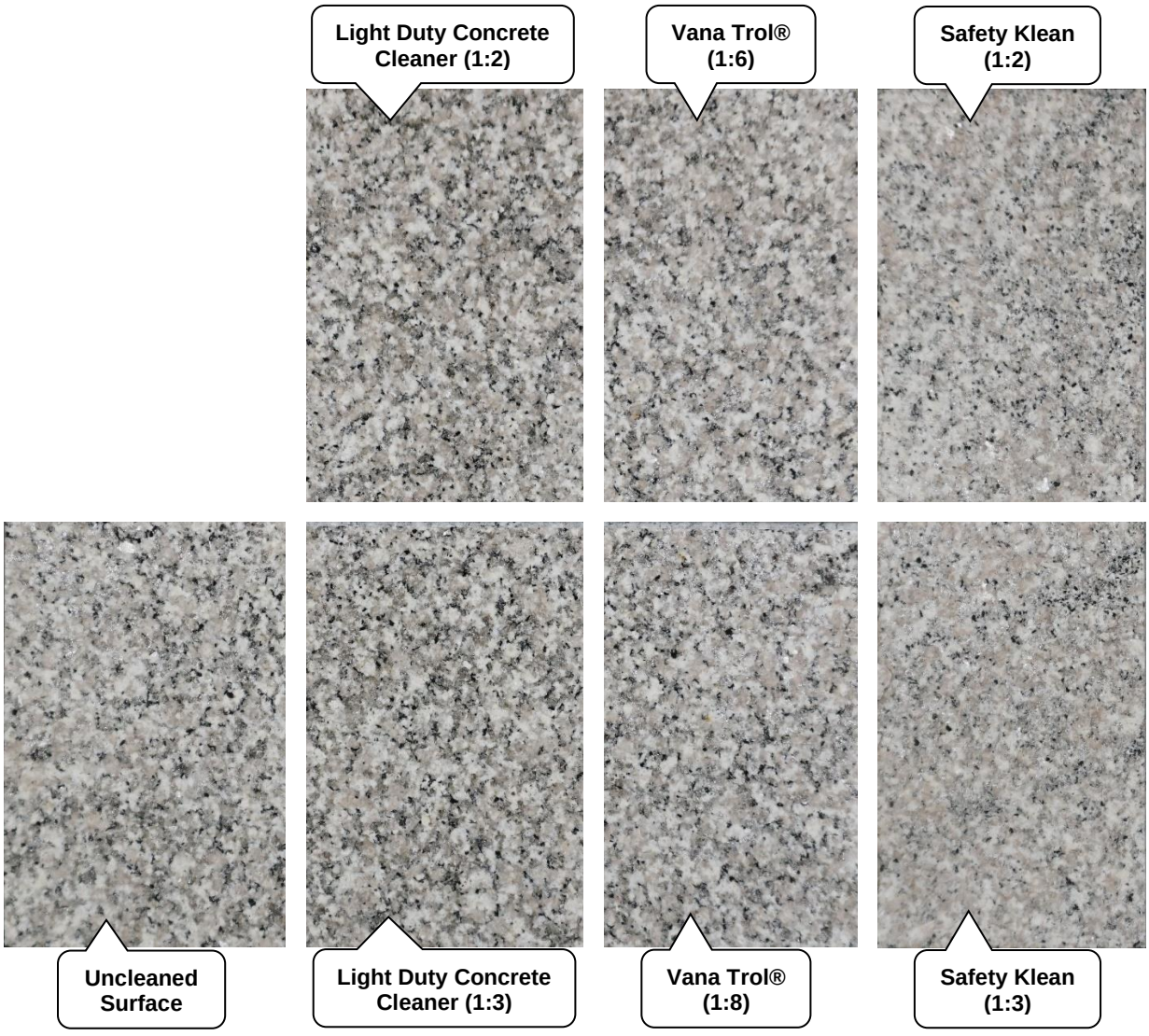
"JAY WHITE™" Flamed Granite After Cleaning



TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning (cont.)

Finish: Flamed	**Name:** "SAINT SEBASTIEN™"				
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	0	0	0	0
Light Duty Concrete Cleaner	1:3	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
Safety Klean	1:2	0	0	0	0
Safety Klean	1:3	0	0	0	0

"SAINT SEBASTIEN™" Flamed Granite After Cleaning



CONCLUSIONS: New Construction Cleaning

In the cleaning tests conducted, none of the new construction cleaners caused any change in appearance to the submitted samples.

When choosing the most appropriate product for the desired result, use Sure Klean® Light Duty Concrete Cleaner when removing common construction stains, efflorescence, and metallic staining. Use Sure Klean® Vana Trol® for new masonry surfaces that are subject to vanadium, manganese, and other metallic stains. Additionally, Sure Klean® Vana Trol® is designed for use with colored mortar. Use Enviro Klean® Safety Klean as an effective, safe alternative to acidic cleaning compounds.

It is recommended that the selected cleaners always be used in the lowest possible concentration.

RECOMMENDATIONS: New Construction Cleaning

Recommendations for cleaning for each type of granite submitted by Polycor, Quebec, Canada are provided in the chart below. Recommendations are based on the cleaner and dilution that provided the best match to the uncleaned surface.

Sample	New Construction Cleaning
"BETHEL WHITE®" Flamed Granite	Sure Klean® Light Duty Concrete Cleaner (1:2) or (1:3) OR Sure Klean® Vana Trol® (1:6) or (1:8) OR Enviro Klean® Safety Klean (1:2) or (1:3)
"JAY WHITE™" Flamed Granite	
"SAINT SEBASTIEN™" Flamed Granite	

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.

TEST METHODS: Maintenance Cleaning

Enviro Klean® 2010 All Surface Cleaner and Enviro Klean® Klean 'N Release Cleaner were evaluated to determine the optimal cleaner which leaves the external surface looking most like the uncleaned surface of the natural stone.

Surface Finish Removal is the visual examination of the sample comparing the surface finish of the uncleaned surface to the surface finish cleaned with selected product(s) at given dilutions.

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

Color Change is the visual examination comparing the color of the uncleaned surface to the color of surfaces cleaned with selected products at given dilutions.

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 both categories:

0 – **No change** compared to uncleaned surface
1 – **Slight change** compared to uncleaned surface
2 – **Moderate change** compared to uncleaned surface
3 – **Significant change** compared to uncleaned surface

Cleaning Procedure:

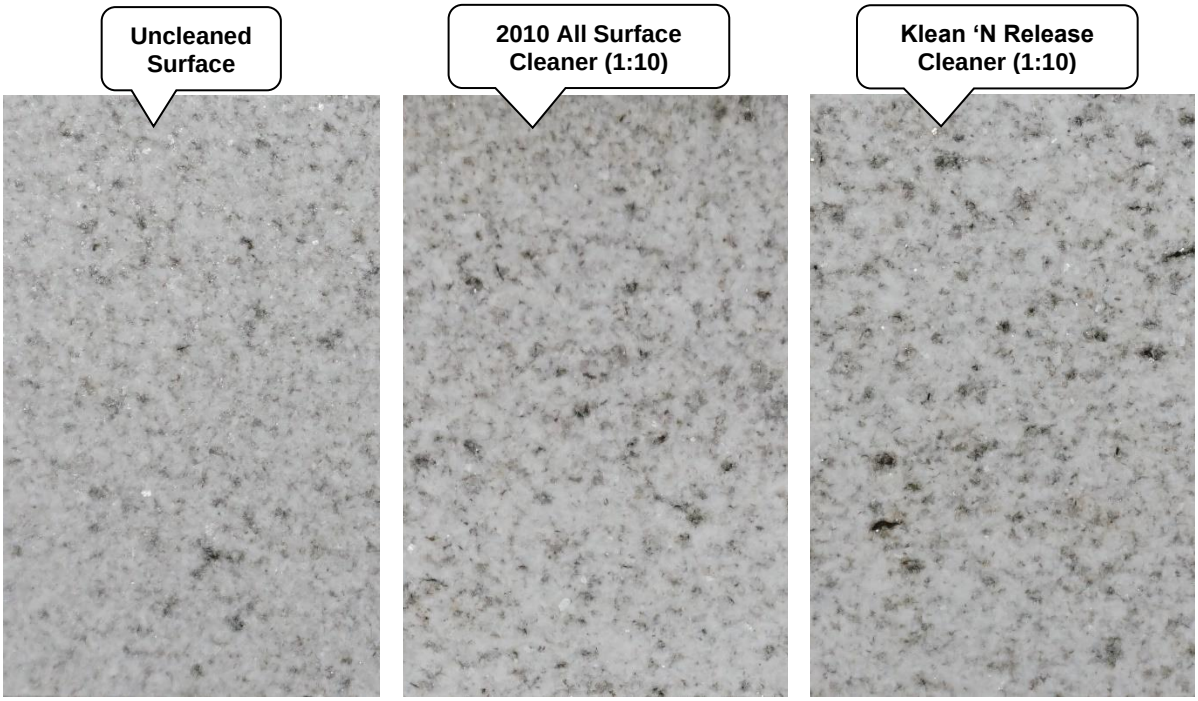
1. Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Data Sheet.
2. Allow for an appropriate dwell time:
   2010 All Surface Cleaner .....10 minutes
   Klean 'N Release Cleaner.....10 minutes
3. Reapply cleaning solution; do not let cleaner dry into natural stone.
4. Rinse thoroughly with plenty of fresh water.*
5. Allow the sample to dry for at least 18 hours and visually examine.
6. Compare the uncleaned surfaces to the cleaned surfaces for the best match.

***Rinsing Equipment –** Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45 degree fan spray tip was used for rinsing.

TEST RESULTS AND PHOTOGRAPHS: Maintenance Cleaning

Finish: Flamed	**Name:** "BETHEL WHITE®"				
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
2010 All Surface Cleaner	1:10	0	0	0	0
Klean 'N Release Cleaner	1:10	0	0	0	0

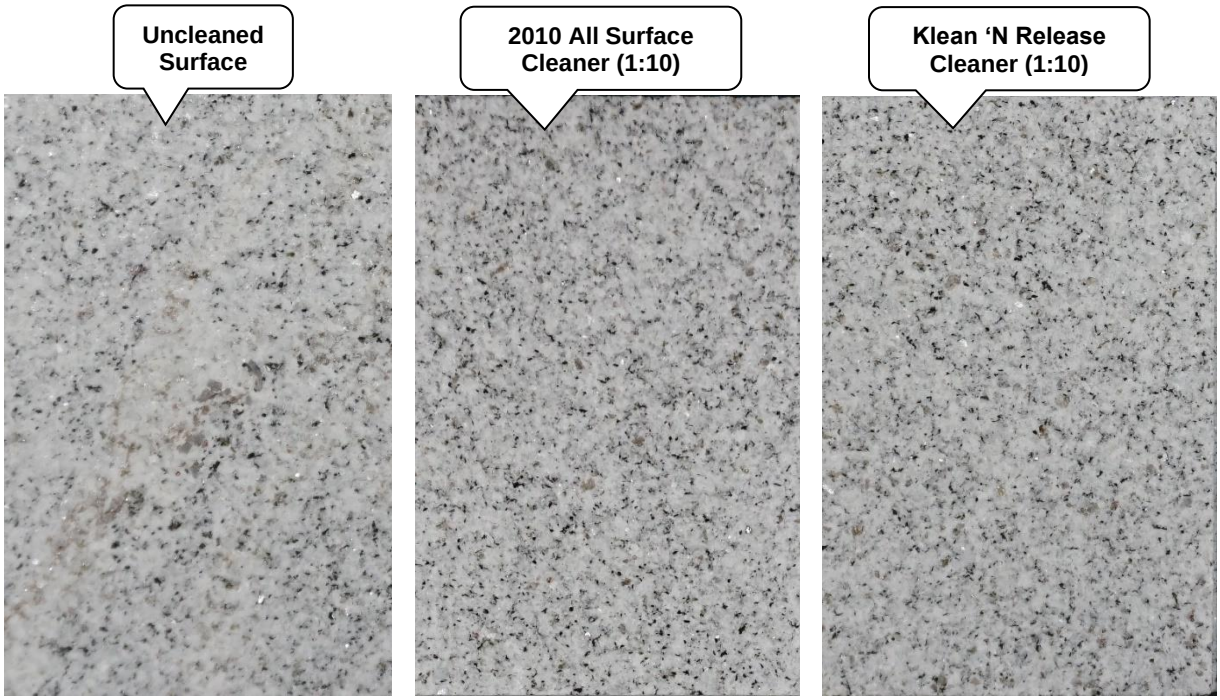
"BETHEL WHITE®" Flamed Granite After Cleaning



TEST RESULTS AND PHOTOGRAPHS: Maintenance Cleaning (cont.)

Finish: Flamed	**Name:** "JAY WHITE™"				
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
2010 All Surface Cleaner	1:10	0	0	0	0
Klean 'N Release Cleaner	1:10	0	0	0	0

"JAY WHITE™" Flamed Granite After Cleaning



TEST RESULTS AND PHOTOGRAPHS: Maintenance Cleaning (cont.)

Finish: Flamed	**Name:** "SAINT SEBASTIEN™"				
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
2010 All Surface Cleaner	1:10	0	0	0	0
Klean 'N Release Cleaner	1:10	0	0	0	0

"SAINT SEBASTIEN™" Flamed Granite After Cleaning

CONCLUSIONS: Maintenance Cleaning

Neither Enviro Klean® 2010 All Surface Cleaner nor Enviro Klean® Klean 'N Release Cleaner caused any change in appearance to any of the submitted samples.

It is recommended that the selected cleaners always be used in the lowest possible concentration.

RECOMMENDATIONS: Maintenance Cleaning

Recommendations for cleaning for each type of granite submitted by Polycor, Quebec, Canada are provided in the chart below. Recommendations are based on the cleaner and dilution that provided the best match to the uncleaned surface.

Sample	Maintenance Cleaning
"BETHEL WHITE®" Flamed Granite	Enviro Klean® 2010 All Surface Cleaner (1:10) OR Enviro Klean® Klean 'N Release Cleaner (1:10)
"JAY WHITE™" Flamed Granite	
"SAINT SEBASTIEN™" Flamed Granite	

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.

SAMPLE PREPARATION: Treatment Application

Prior to treatment application, the submitted granite samples were rinsed using masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45 degree fan spray tip. After the samples were allowed to dry for at least 24 hours, the treatments were applied in accordance with the current PROSOCO, Inc. Product Data Sheet instructions.

TEST METHODS: Color and Sheen Enhancement

After 72 hours, a visual evaluation was made comparing the untreated control surface to the treated surface to determine the effectiveness of the evaluated products in providing color and/or sheen enhancement to the submitted natural stone samples.

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

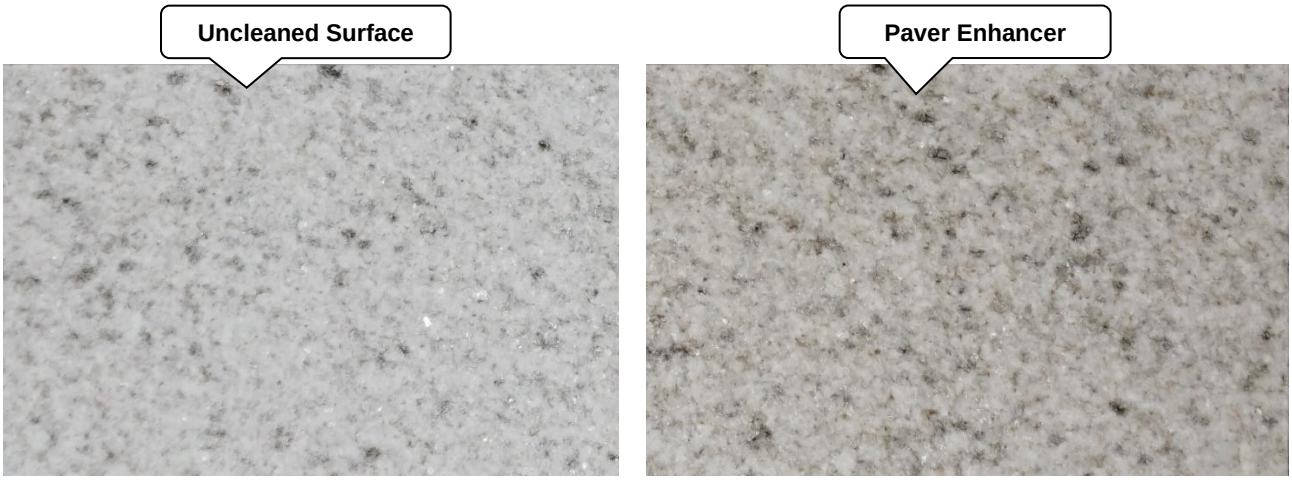
0 – **No enhancement** compared to untreated surface
1 – **Slight enhancement** compared to untreated surface
2 – **Moderate enhancement** compared to untreated surface
3 – **Significant enhancement** compared to untreated surface

NOTE: Due to the surface irregularities and varying nature of the natural stone, the substrate's color and sheen enhancement may vary from one area of the sample to another, as well as from sample to sample.

TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement

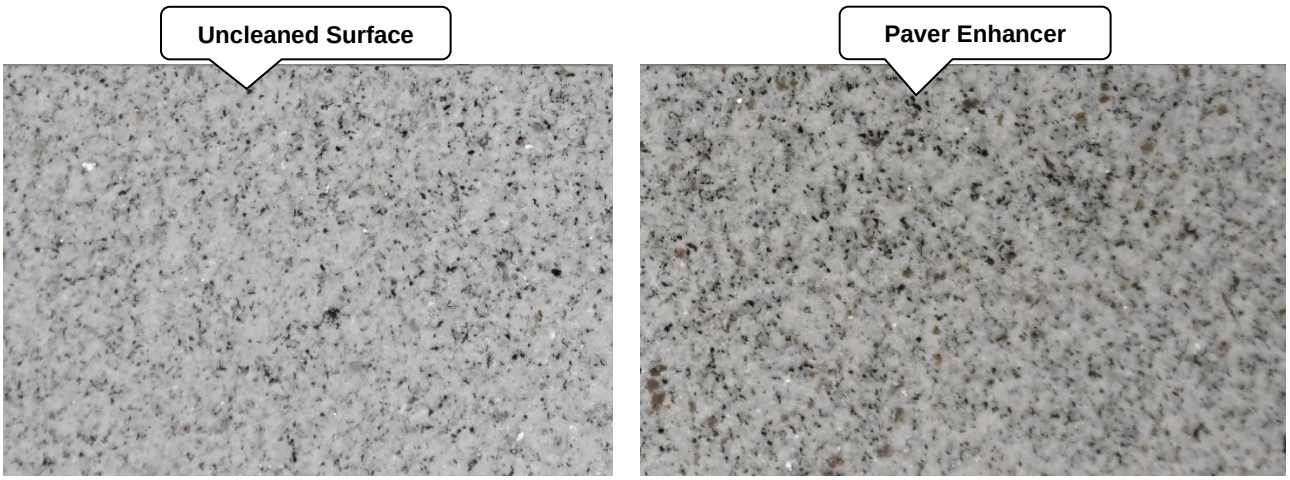
"BETHEL WHITE®" Flamed Granite	Color Enhancement	Sheen Enhancement
Paver Kare® Paver Enhancer	2	0

"BETHEL WHITE®" Flamed Granite After Application



"JAY WHITE™" Flamed Granite	Color Enhancement	Sheen Enhancement
Paver Kare® Paver Enhancer	2	0

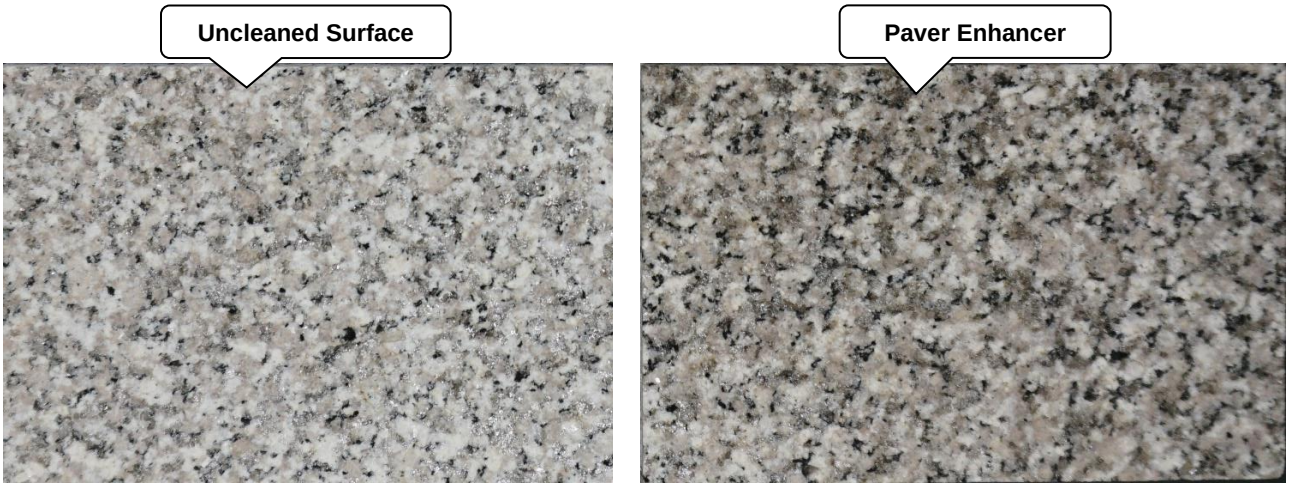
"JAY WHITE™" Flamed Granite After Application



TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement (cont.)

"SAINT SEBASTIEN™" Flamed Granite	Color Enhancement	Sheen Enhancement
Paver Kare® Paver Enhancer	2	0

"SAINT SEBASTIEN™" Flamed Granite After Application



CONCLUSIONS – Color and Sheen Enhancement

Application of Paver Kare® Paver Enhancer resulted in moderate color enhancement to each sample. No sheen enhancement was observed.

RECOMMENDATIONS: Color and Sheen Enhancement

Recommendations for color and sheen enhancement for each type of granite submitted by Polycor, Quebec, Canada are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Color and Sheen Enhancement
"BETHEL WHITE®" Flamed Granite	Paver Kare® Paver Enhancer
"JAY WHITE™" Flamed Granite	
"SAINT SEBASTIEN™" Flamed Granite	

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

TEST METHODS: Protective Water Repellents

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

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

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

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

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

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

EXAMPLE: If RILEM tubes applied to an untreated sample result in loss of 5.0 ml of water or more, then:

A rating of **AA** *Above Average* water repellent performance would be reported for treatments which result in a loss of no more than:

5.0 mL × 20% = **1.0 mL**

A rating of **A** *Average* water repellent performance would be reported for treatments which result in a loss of no more than:

5.0 mL × 50% = **2.5 mL**

A rating of **BA** *Below Average* water repellent performance would be reported for treatments which result in a loss of more than:

5.0 mL × 50% = **2.5 mL**

TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

AA = Above Average **A** = Average **BA**= Below Average

"BETHEL WHITE®" Flamed Granite	**Results in mL loss**	**Ranking**
Untreated Control	-0.0	--
PROSOCO® SL100 Water Repellent	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**
Paver Kare® Paver Enhancer	-0.0	**AA**
PROSOCO® Saltguard®	-0.0	**AA**
PROSOCO® Saltguard® VOC	-0.0	**AA**

"JAY WHITE™" Flamed Granite	**Results in mL loss**	**Ranking**
Untreated Control	-0.0	--
PROSOCO® SL100 Water Repellent	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**
Paver Kare® Paver Enhancer	-0.0	**AA**
PROSOCO® Saltguard®	-0.0	**AA**
PROSOCO® Saltguard® VOC	-0.0	**AA**

"SAINT SEBASTIEN™" Flamed Granite	**Results in mL loss**	**Ranking**
Untreated Control	-0.0	--
PROSOCO® SL100 Water Repellent	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**
Paver Kare® Paver Enhancer	-0.0	**AA**
PROSOCO® Saltguard®	-0.0	**AA**
PROSOCO® Saltguard® VOC	-0.0	**AA**

CONCLUSIONS: Protective Water Repellents

Based on the laboratory evaluations, all of the treatments provided good water repellent protection to the submitted samples.

PROSOCO® SL100 Water Repellent and PROSOCO® SLX100® Water & Oil Repellent caused no change to the appearance of the submitted samples. PROSOCO® Saltguard® and PROSOCO® Saltguard® VOC color enhancement ranged from very slight to slight depending on the sample and treatment.

Please refer to the "Color and Sheen Enhancement" section of the report for Paver Kare® Paver Enhancer appearance information.

RECOMMENDATIONS: Water Repellency

Recommendations for water repellency for each type of granite submitted by Polycor, Quebec, Canada are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Water Repellency
"BETHEL WHITE®" Flamed Granite	PROSOCO® SL100 Water Repellent OR PROSOCO® SLX100® Water & Oil Repellent OR Paver Kare® Paver Enhancer OR PROSOCO® Saltguard® OR PROSOCO® Saltguard® VOC
"JAY WHITE™" Flamed Granite	
"SAINT SEBASTIEN™" Flamed Granite	

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

TEST METHODS: Graffiti Resistance

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

Spray paint and markers were applied as graffiti agents to the untreated and treated surfaces five days after application of Defacer Eraser® Sacrificial Coating SC-1. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Enviro Klean® SafStrip® and Defacer Eraser® Graffiti Remover.

Chemical cleaners were evaluated using the following procedure:

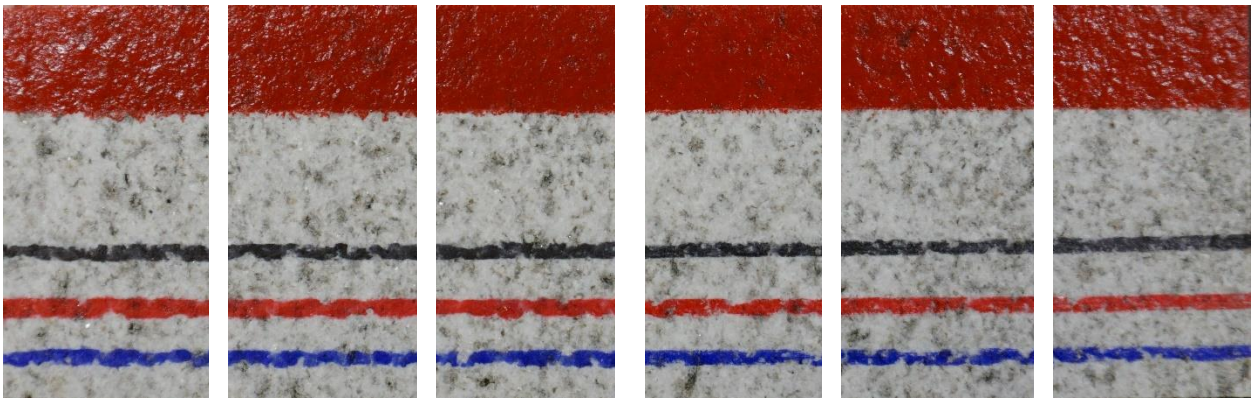
1. Apply the product to a dry surface, soiled with graffiti.
2. Allow appropriate dwell time:
   SafStrip® ..... 30 minutes
   Graffiti Remover ..... 5 minutes
3. Rinse thoroughly until water runs clear. *
4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

***Pressure Rinsing Equipment –** Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45-degree fan spray tip was used for rinsing.

TEST RESULTS AND PHOTOGRAPHS: Graffiti Resistance

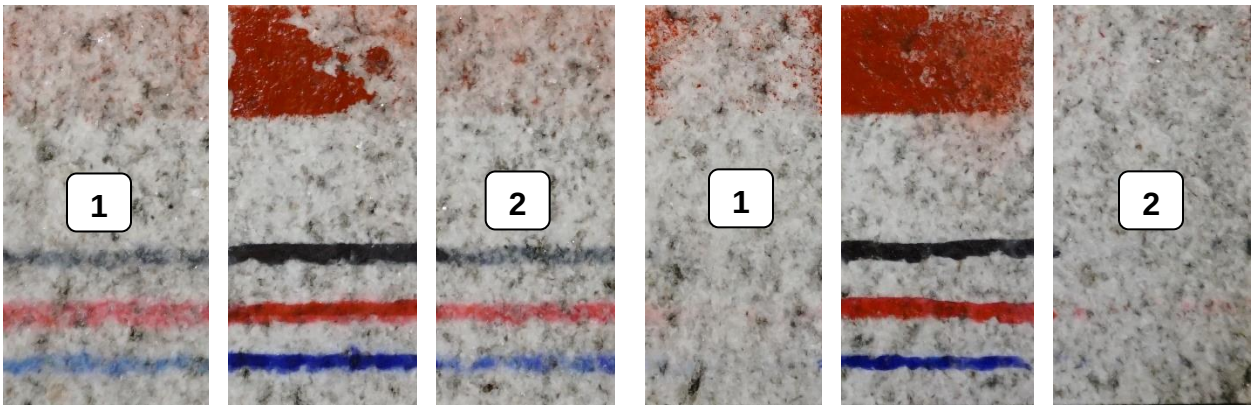
"BETHEL WHITE®" Flamed Granite					
Untreated Control	**Red Paint**	**Black Marker**	**Red Marker**	**Blue Marker**	**% Avg. Removal**
SafStrip®	70%	50%	50%	50%	**55%**
Graffiti Remover	70%	50%	50%	50%	**55%**
Sacrificial Coating SC-1	**Red Paint**	**Black Marker**	**Red Marker**	**Blue Marker**	**% Avg. Removal**
SafStrip®	80%	95%	90%	95%	**90%**
Graffiti Remover	95%	95%	90%	95%	**94%**

"BETHEL WHITE®" Flamed Granite With Graffiti



Untreated Control **Sacrificial Coating SC-1**

"BETHEL WHITE®" Flamed Granite After Graffiti Testing



Untreated Control **Sacrificial Coating SC-1**

KEY

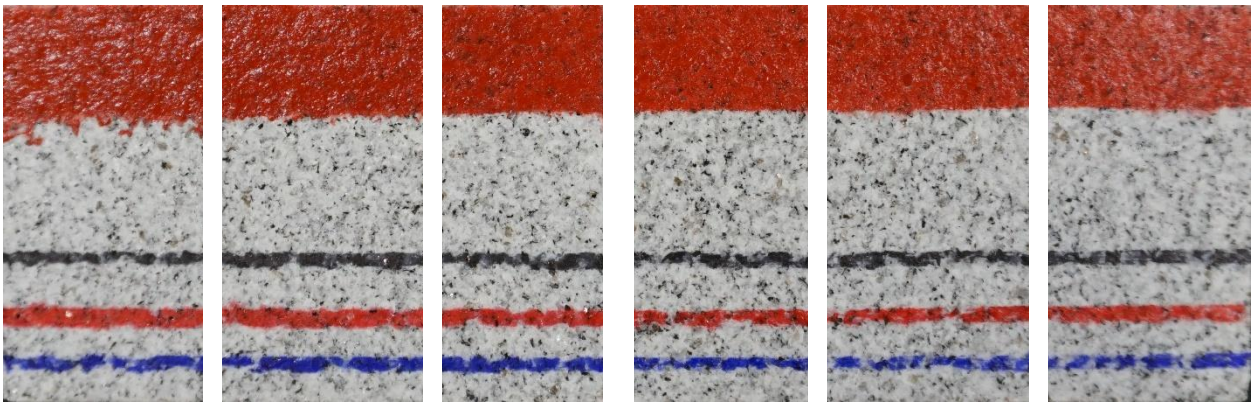
1 = SafStrip®

2 = Graffiti Remover

TEST RESULTS AND PHOTOGRAPHS: Graffiti Resistance (cont.)

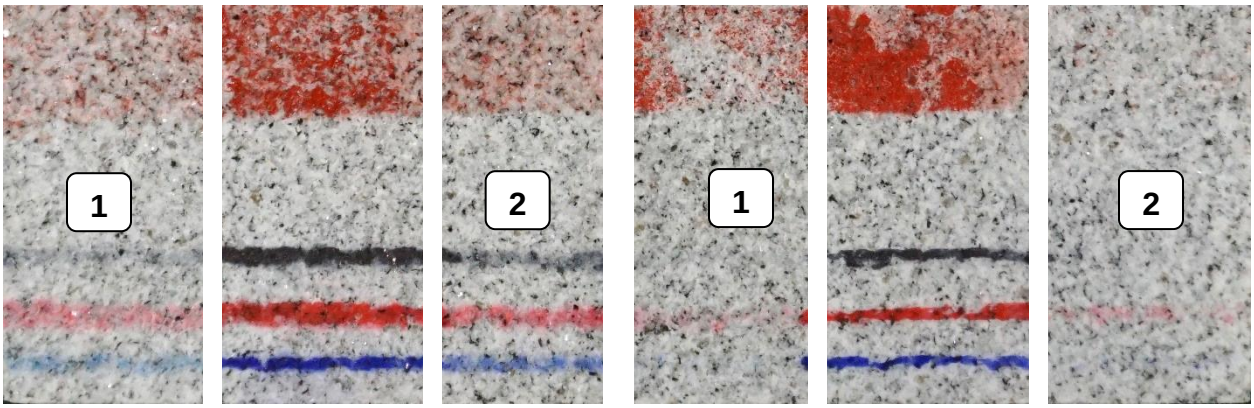
"JAY WHITE™" Flamed Granite					
Untreated Control	**Red Paint**	**Black Marker**	**Red Marker**	**Blue Marker**	**% Avg. Removal**
SafStrip®	70%	60%	60%	60%	**63%**
Graffiti Remover	70%	50%	50%	50%	**55%**
Sacrificial Coating SC-1	**Red Paint**	**Black Marker**	**Red Marker**	**Blue Marker**	**% Avg. Removal**
SafStrip®	70%	95%	80%	95%	**85%**
Graffiti Remover	95%	95%	80%	95%	**91%**

"JAY WHITE™" Flamed Granite With Graffiti



Untreated Control **Sacrificial Coating SC-1**

"JAY WHITE™" Flamed Granite After Graffiti Testing



Untreated Control **Sacrificial Coating SC-1**

KEY

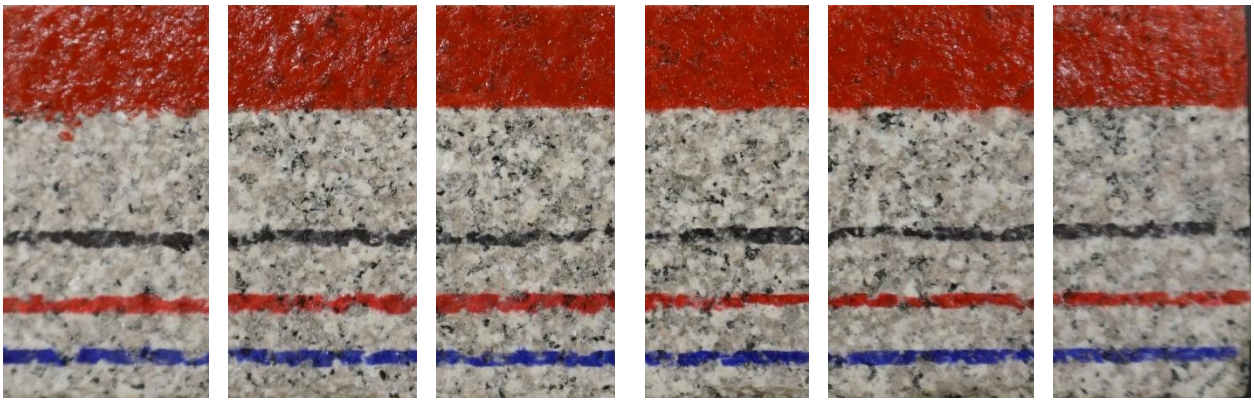
1 = SafStrip®

2 = Graffiti Remover

TEST RESULTS AND PHOTOGRAPHS: Graffiti Resistance (cont.)

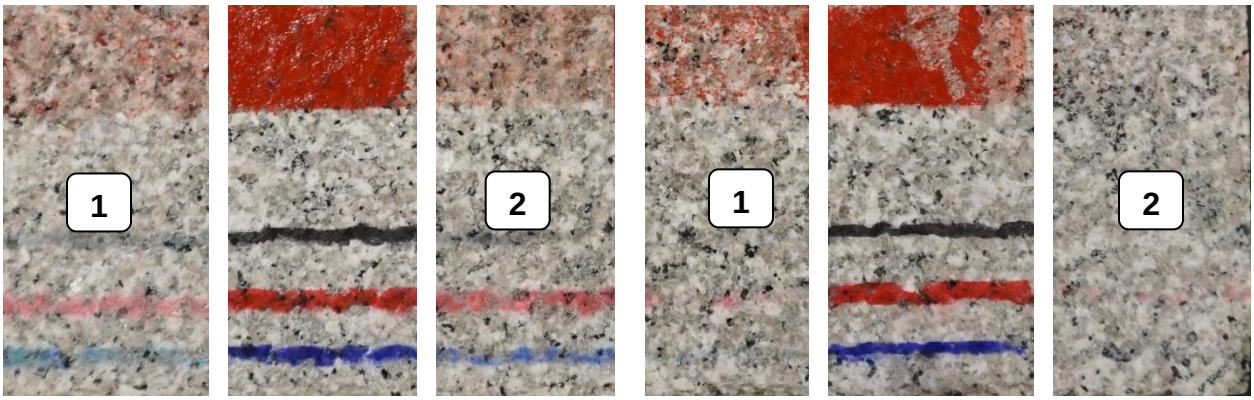
"SAINT SEBASTIEN™" Flamed Granite					
Untreated Control	**Red Paint**	**Black Marker**	**Red Marker**	**Blue Marker**	**% Avg. Removal**
SafStrip®	70%	60%	60%	60%	**63%**
Graffiti Remover	70%	60%	50%	50%	**58%**
Sacrificial Coating SC-1	**Red Paint**	**Black Marker**	**Red Marker**	**Blue Marker**	**% Avg. Removal**
SafStrip®	70%	95%	90%	90%	**86%**
Graffiti Remover	95%	98%	90%	95%	**95%**

"SAINT SEBASTIEN™" Flamed Granite With Graffiti



Untreated Control **Sacrificial Coating SC-1**

"SAINT SEBASTIEN™" Flamed Granite After Graffiti Testing



Untreated Control **Sacrificial Coating SC-1**

KEY

1 = SafStrip®

2 = Graffiti Remover

CONCLUSIONS: Graffiti Resistance

Based on the laboratory evaluations, graffiti removal was improved when the submitted samples were treated with Defacer Eraser® Sacrificial Coating SC-1.

Enviro Klean® SafStrip® and Defacer Eraser® Graffiti Remover were both effective at removing the graffiti from the submitted samples, although Defacer Eraser® Graffiti Remover was the most effective.

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

RECOMMENDATIONS: Graffiti Resistance

Recommendations for graffiti control for each type of granite submitted by Polycor, Quebec, Canada are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective on average for providing graffiti repellency and the product that was most effective on average at removing the graffiti on all types submitted.

Sample	Graffiti Resistance
"BETHEL WHITE®" Flamed Granite	**Graffiti Repellents** Defacer Eraser® Sacrificial Coating SC-1 **Graffiti Removers** [2]Enviro Klean® SafStrip® OR [1]Defacer Eraser® Graffiti Remover
"JAY WHITE™" Flamed Granite	
"SAINT SEBASTIEN™" Flamed Granite	

NOTE: "1" indicates the most effective product and "2" indicates the second most effective product.

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

SAMPLE PREPARATION: Treatments

Each stain repellent was applied in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. The treatments were allowed to cure for at least 72 hours prior to the stain testing described below.

TEST METHODS: Surface Beading Evaluation

Food and Oil Products Evaluated for Stain Testing:	**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

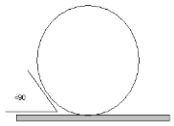
The food and oil products were applied to the test areas by using a dropper creating a bead 0.5 – 1.0 cm in diameter. The beading properties of the oils and liquids were visually evaluated within two minutes after application. The results are reported as a rating based on the angle of contact between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

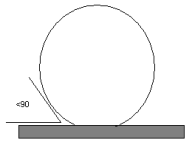
TEST METHODS: Surface Beading Evaluation (cont.)

Rating System (1-5)

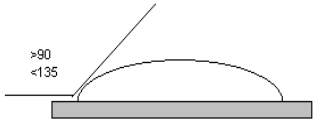
1. No wetting of contact area (no darkening); angle less than 90°



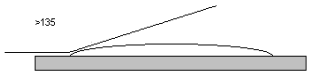
2. Wetting contained to the contact area (slight darkening); angle is less than 90°



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.

TEST RESULTS: Surface Beading Evaluation

"BETHEL WHITE®" Flamed Granite			
	Untreated	**SLX100®**	**STMP**
Coca Cola	4	3	3
Ketchup	N/A	N/A	N/A
Mustard	N/A	N/A	N/A
Red Wine	4	3	4
Bals. Vin.	4	3	4
Soy Sauce	4	3	4
Olive Oil	5	3	3
Wesson Oil	5	3	3
Hot Coffee	4	3	3

"JAY WHITE™" Flamed Granite			
	Untreated	**SLX100®**	**STMP**
Coca Cola	4	3	3
Ketchup	N/A	N/A	N/A
Mustard	N/A	N/A	N/A
Red Wine	4	3	3
Bals. Vin.	4	3	3
Soy Sauce	4	3	3
Olive Oil	5	3	3
Wesson Oil	5	3	3
Hot Coffee	4	3	3

N/A – non-free flowing staining agent

TEST RESULTS: Surface Beading Evaluation (cont.)

"SAINT SEBASTIEN™" Flamed Granite			
	Untreated	**SLX100®**	**STMP**
Coca Cola	4	3	3
Ketchup	N/A	N/A	N/A
Mustard	N/A	N/A	N/A
Red Wine	4	3	4
Bals. Vin.	4	3	4
Soy Sauce	4	3	4
Olive Oil	5	3	3
Wesson Oil	5	3	3
Hot Coffee	4	3	3

N/A – non-free flowing staining agent

TEST METHODS: Stain Resistance Evaluation

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 with ten parts water and scrubbed under a stream of running water. The 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 AND PHOTOGRAPHS: Stain Resistance Evaluation

"BETHEL WHITE®" Flamed Granite

% Removal

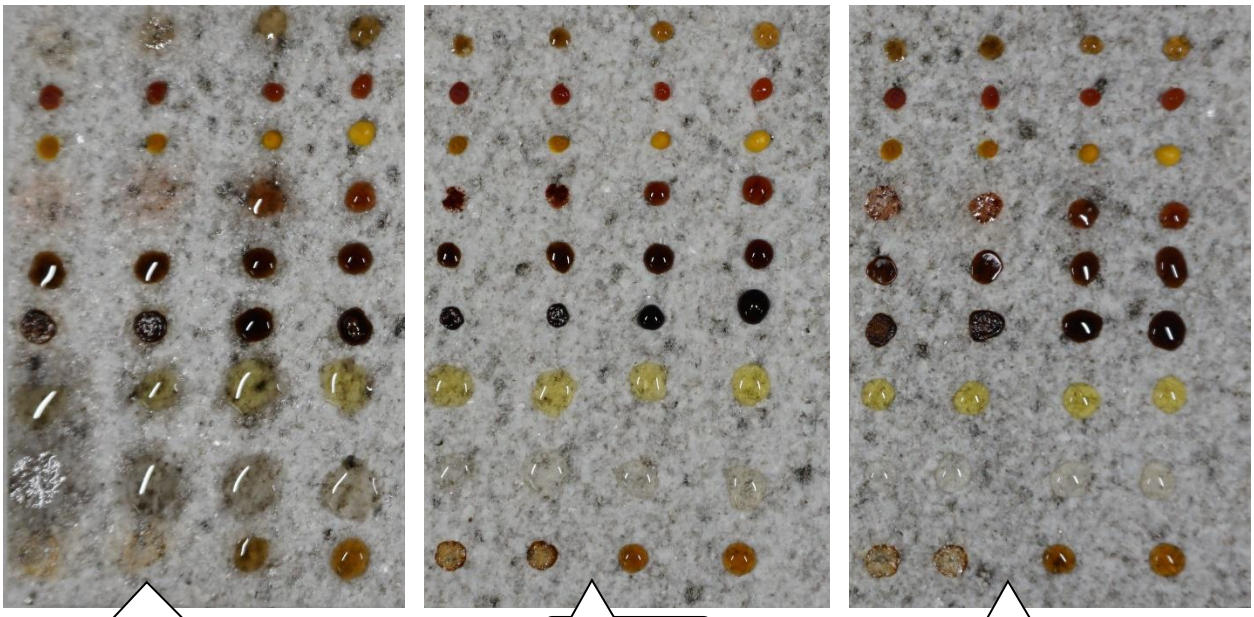
Untreated Control									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	60%	100%	100%	40%	60%	40%	20%	20%	20%
4 hour	60%	100%	100%	40%	60%	40%	40%	40%	20%
1 hour	60%	100%	100%	40%	60%	40%	60%	60%	40%
10 min.	90%	100%	100%	100%	100%	90%	100%	60%	80%
PROSOCO® SLX100® Water & Oil Repellent									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	100%	100%	100%	80%	100%	100%	100%	100%	80%
4 hour	100%	100%	100%	80%	100%	100%	100%	100%	80%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
Stand Off® Stone, Tile & Masonry Protector (STMP)									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	100%	100%	100%	60%	90%	90%	100%	100%	60%
4 hour	100%	100%	100%	60%	100%	95%	100%	100%	60%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of stain following maintenance cleaning.

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

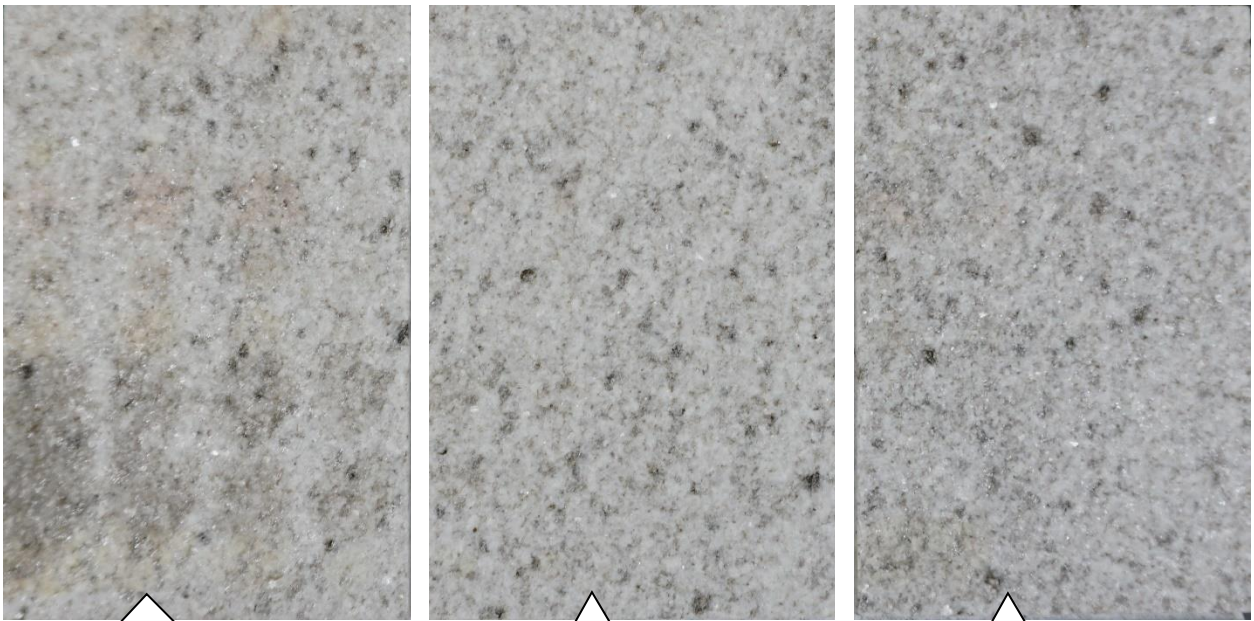
TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation (cont.)

"BETHEL WHITE®" Flamed Granite With Stains



Untreated Control | SLX100® | STMP

"BETHEL WHITE®" Flamed Granite After Stain Testing



Untreated Control | SLX100® | STMP

TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation (cont.)

"JAY WHITE™" Flamed Granite

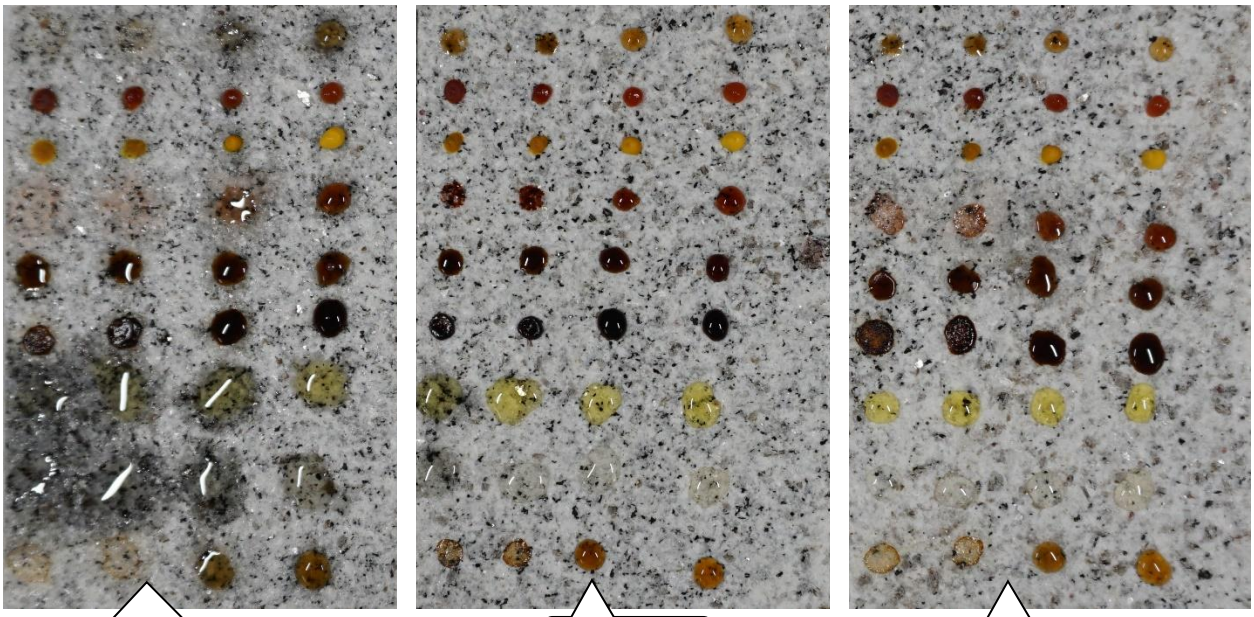
% Removal

Untreated Control									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	60%	100%	100%	40%	60%	40%	20%	20%	20%
4 hour	60%	100%	100%	40%	60%	40%	60%	40%	20%
1 hour	60%	100%	100%	40%	60%	40%	60%	40%	40%
10 min.	90%	100%	100%	90%	80%	90%	100%	60%	80%
PROSOCO® SLX100® Water & Oil Repellent									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	100%	100%	100%	80%	100%	100%	60%	60%	90%
4 hour	100%	100%	100%	80%	100%	100%	100%	100%	90%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
Stand Off® Stone, Tile & Masonry Protector (STMP)									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	100%	100%	100%	60%	90%	90%	100%	100%	60%
4 hour	100%	100%	100%	60%	100%	90%	100%	100%	60%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of stain following maintenance cleaning.
* Indicates etching of surface treatment due to the acidic nature of the staining agent.

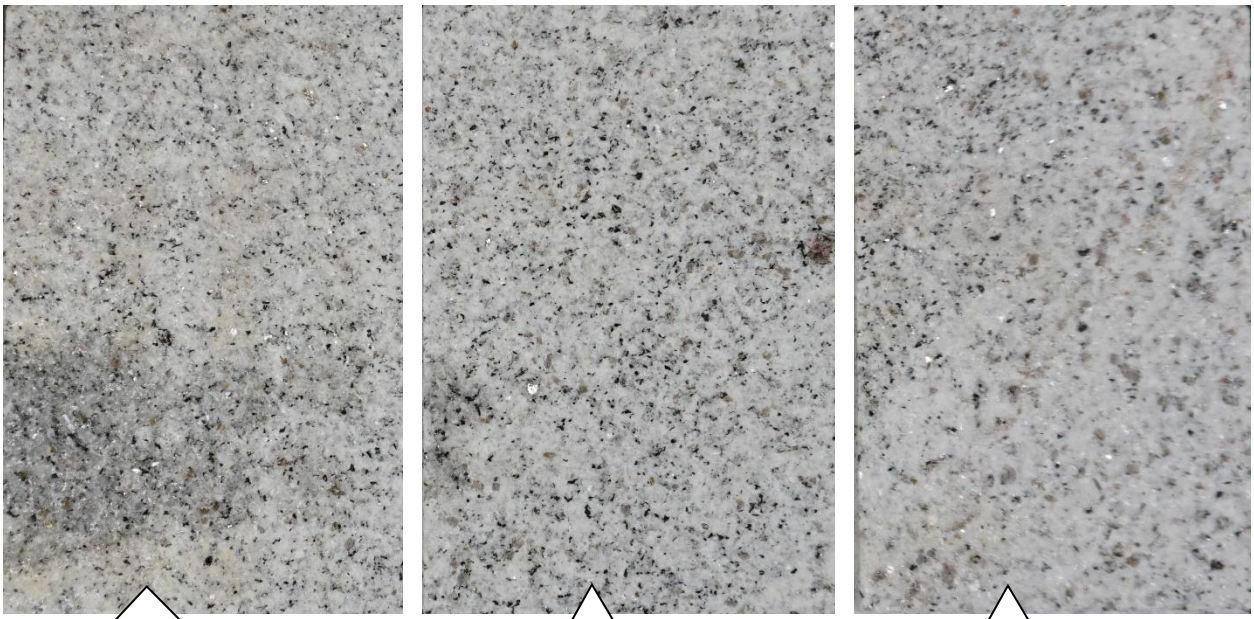
TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation (cont.)

"JAY WHITE™" Flamed Granite With Stains



Untreated Control | SLX100® | STMP

"JAY WHITE™" Flamed Granite After Stain Testing



Untreated Control | SLX100® | STMP

TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation (cont.)

"SAINT SEBASTIEN™" Flamed Granite

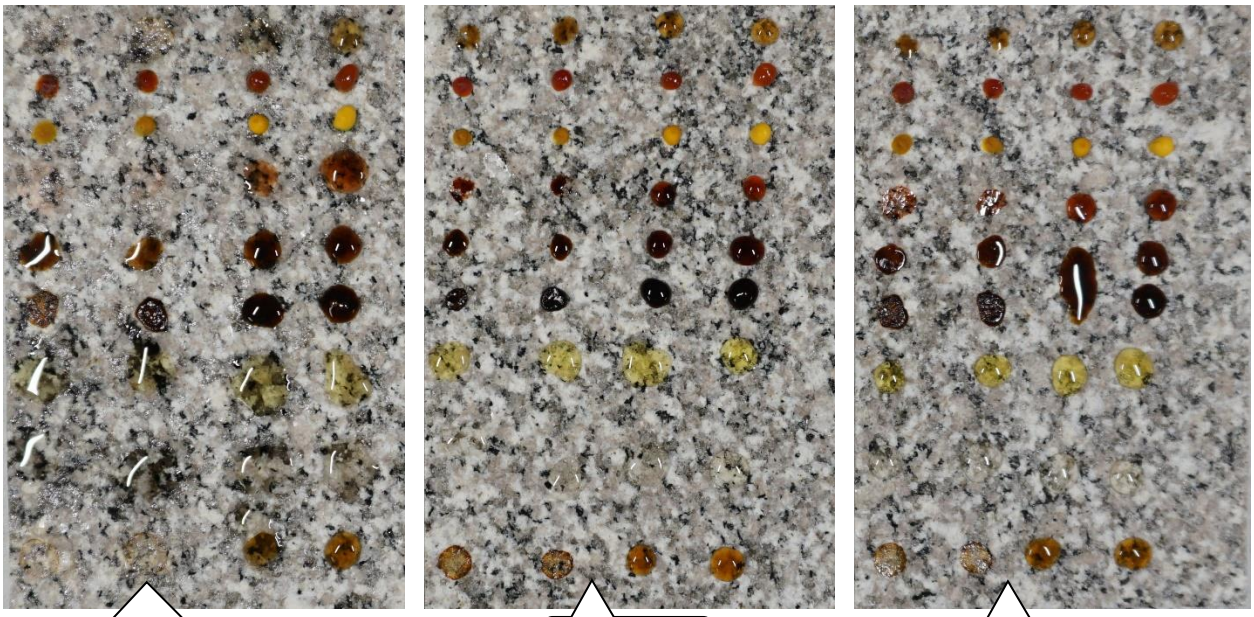
% Removal

Untreated Control									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	95%	100%	100%	100%	100%	60%	60%	40%	20%
4 hour	90%	100%	100%	100%	100%	60%	60%	40%	20%
1 hour	100%	100%	100%	100%	100%	90%	100%	100%	40%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	90%
PROSOCO® SLX100® Water & Oil Repellent									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	100%	100%	100%	100%	100%	100%	100%	100%	98%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	95%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%
Stand Off® Stone, Tile & Masonry Protector (STMP)									
	Cola	**Ketch.**	**Must.**	**Red Wine**	**Bals. Vin.**	**Soy Sauce**	**Olive Oil**	**Wesson Oil**	**Coffee**
24 hour	100%	100%	100%	100%	100%	100%	100%	100%	95%
4 hour	100%	100%	100%	100%	100%	100%	100%	100%	95%
1 hour	100%	100%	100%	100%	100%	100%	100%	100%	100%
10 min.	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Removal of stain following maintenance cleaning.
* Indicates etching of surface treatment due to the acidic nature of the staining agent.

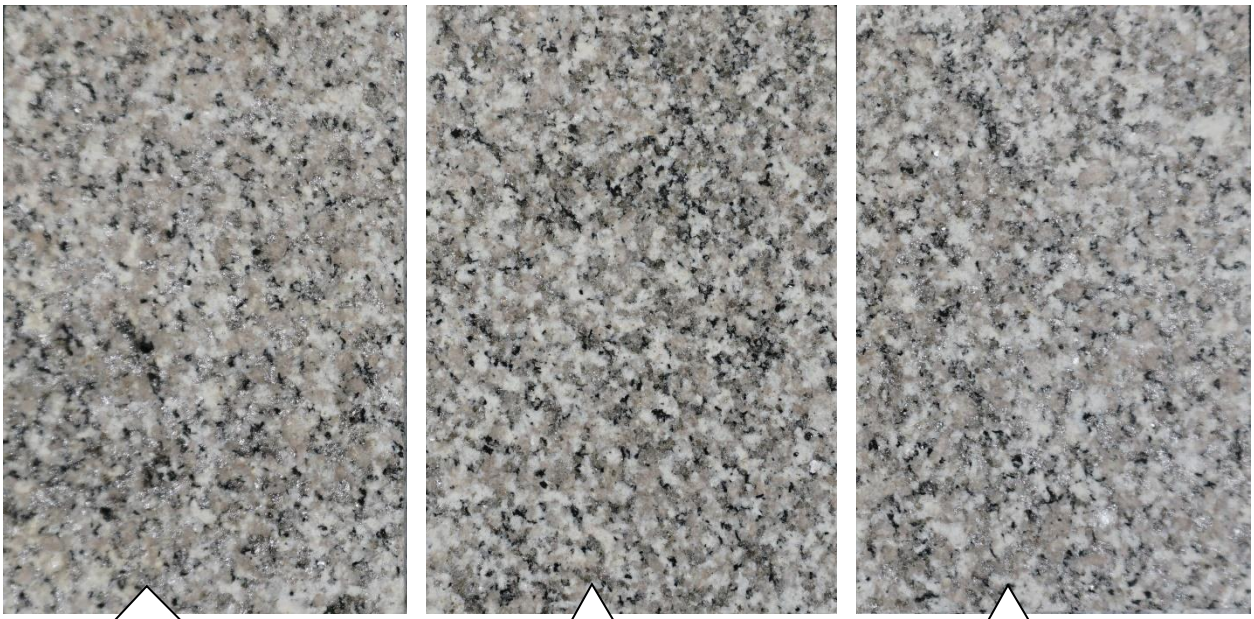
TEST RESULTS AND PHOTOGRAPHS: Stain Resistance Evaluation (cont.)

"SAINT SEBASTIEN™" Flamed Granite With Stains



Untreated Control | SLX100® | STMP

"SAINT SEBASTIEN™" Flamed Granite After Stain Testing



Untreated Control | SLX100® | STMP

CONCLUSIONS: Surface Beading and Stain Resistance

In the surface beading evaluation, PROSOCO® SLX100® Water & Oil Repellent and Stand Off® Stone, Tile & Masonry Protector (STMP) had the smallest angles of contact with each stain applied on the submitted samples. This small angle correlates to “above average” repellency.

In the stain resistance tests conducted, PROSOCO® SLX100® Water & Oil Repellent and Stand Off® Stone, Tile & Masonry Protector (STMP) proved effective at repelling the applied stains on the submitted samples.

NOTE: Due to the surface irregularities of the natural stone, the substrate’s stain resistance may vary from one area of the stone to another.

RECOMMENDATIONS: Stain Resistance

Recommendations for stain resistance for each type of granite submitted by Polycor, Quebec, Canada are provided in the chart below. Recommendations are based on the treatments that proved most effective for providing stain repellency on the submitted natural stone.

Sample	Stain Resistance
"BETHEL WHITE®" Flamed Granite	**Stain Repellents** [1]PROSOCO® SLX100® Water & Oil Repellent OR [2]Stand Off® Stone, Tile & Masonry Protector (STMP)
"JAY WHITE™" Flamed Granite	
"SAINT SEBASTIEN™" Flamed Granite	

NOTE: "1" indicates the most effective product and "2" indicates the second most effective product.

The ability of a stain repellent treatment to prevent staining is affected by a variety of factors. Therefore, on-site testing should be carried out for all installations with the recommended systems to ensure job site workmanship yields equivalent results.

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

J. Lucas Comadoll
QC/Project Testing Technician

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF THIRTY (30) DAYS AFTER THE ISSUE DATE OF THIS REPORT. IF SAMPLES ARE TO BE RETAINED FOR ADDITIONAL TESTING OR RETURNED TO THE SENDER, PROVIDE WRITTEN INSTRUCTIONS TO THE LABORATORY WITHIN THIRTY (30) DAYS OF THE ISSUE DATE OF THIS REPORT.

Recommendations made within this report are based on laboratory test applications and observations. Final determination of the suitability of a product and/or procedure should be made only after thorough job testing on actual surfaces.