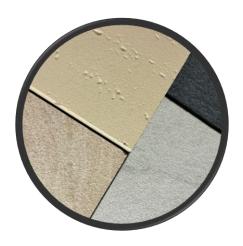


Pallet Tag Program Laboratory Report

Techo-Bloc Natural Stone and Manufactured Stone Saint-Hubert, Quebec



Project No. 2402-07 PTP

Prepared For:



Prepared By:

J. Lucas Comadoll

Project Testing Technician
AMT Laboratories

March 2024



Laboratory Report

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March 15, 2024

2402-07 PTP

DATE:

PROJECT:

FOR: Nicholas Finlayson, Techo-Bloc Inc. Yannick St-Iouis, Proline Canada cc: John Breska, PROSOCO, Inc.

Jake Boyer, PROSOCO, Inc.

SUBJECT: Techo-Bloc – Natural Stone and Manufactured Stone

Saint-Hubert, Quebec, Canada

Pallet Tag Evaluation

SAMPLES SUBMITTED: Three types of natural stone and two types of manufactured stone

Туре	Name	Finish	Color	Size
Natural Stone Slab	Sandstone	Natural Stone	Beige	1 15/16" x 13 3/4" x 47 1/4"
Natural Stone Slab	Sandstone	Natural Stone	Grey	1 15/16" x 13 3/4" x 47 1/4"
Natural Stone Coping	Limestone	Natural Stone	Black	1 15/16" x 13 3/4" x 47 1/4"
Manufactured Stone	Travertina Raw	Klean-Bloc	lvory	2 1/4" x 20" x 30"
Manufactured Stone	Travertina Raw	Klean-Bloc	Riviera	2 1/4" x 20" x 30"

SUBMITTED BY: Nicholas Finlayson

> Sourcing Manager Techo-Bloc Inc.

5255 Rue Albert-Millichamp

Saint-Hubert, Quebec, Canada, J3Y 8Z8



PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted samples.
- To evaluate the color and sheen enhancement characteristics of the requested PROSOCO, Inc. treatments on the submitted samples.
- To determine the most appropriate PROSOCO, Inc. water repellent for the submitted samples.



PRODUCTS EVALUATED:

New Construction Cleaning	Dilution:
Enviro Klean® 2010 All Surface Cleaner® (Maintenance Cleaning)	1:10
Enviro Klean® Safety Klean	1:2, 1:3
Sure Klean® Light Duty Concrete Cleaner	1:2, 1:3
Sure Klean® Vana Trol®	1:6, 1:8
Sure Klean® 6001	1:6, 1:8
Sure Klean® Heavy Duty Concrete Cleaner¹	1:4, 1:6

Color and Sheen Enhancement ²	Dilution:
PROSOCO® Saltguard® WB¹	N/A*
PROSOCO® SL100 Water Repellent1	N/A*
Sure Klean® Weather Seal Natural Stone Treatment WB	N/A*
Sure Klean® Weather Seal Sand Joint Stabilizer	N/A*
Sure Klean® Weather Seal Satin Guard WB	N/A*

Water Repellency ²	Dilution:
PROSOCO® Saltguard® WB¹	N/A*
PROSOCO® SL100 Water Repellent¹	N/A*
Sure Klean® Weather Seal Natural Stone Treatment WB	N/A*

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

- 1. In accordance with the current PROSOCO, Inc. Product Data Sheet instructions, Sure Klean® 600, Sure Klean® Heavy Duty Concrete Cleaner, PROSOCO® Saltguard® WB, and PROSOCO® SL100 Water Repellent were omitted from testing on the "Black" limestone because they are not recommended for use on limestone.
- 2. As instructed by the manufacturer, the "Ivory" and "Riviera" Travertina Raw manufactured stone samples were omitted from treatment testing because they are factory sealed (Klean-Bloc technology). Additionally, the Techo-Bloc Care Guide states, "Applying a protectant to this product collection is not necessary nor is it recommended."



TEST METHODS: New Construction Cleaning

Enviro Klean® 2010 All Surface Cleaner®, Enviro Klean® Safety Klean, Sure Klean® Light Duty Concrete Cleaner, Sure Klean® Vana Trol®, Sure Klean® 600, and Sure Klean® Heavy Duty Concrete Cleaner were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the uncleaned surface of the submitted natural stone or manufactured stone.

<u>Surface Finish Removal</u> 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.

<u>Substrate Deterioration</u> 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.

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

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

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:

 Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Data Sheet.

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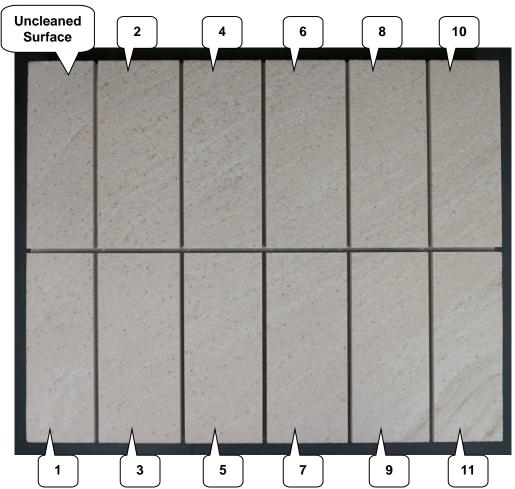
- 3. Reapply cleaning solution; do not let cleaner dry into sample.
- 4. Rinse thoroughly with plenty of fresh water.*
- 5. Allow the sample to dry for at least 18 hours and visually examine.
- 6. Compare the uncleaned surfaces to the cleaned surfaces for the best match.

^{*}Rinsing Equipment – Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 40 degree fan spray tip was used for rinsing.



Name: "Beige" Sandstone						
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining	Key
2010 All Surface Cleaner®	1:10	0	0	0	0	1
Safety Klean	1:2	0	0	0	0	2
Safety Klean	1:3	0	0	0	0	3
Light Duty Concrete Cleaner	1:2	0	0	0	0	4
Light Duty Concrete Cleaner	1:3	0	0	0	0	5
Vana Trol®	1:6	0	0	0	0	6
Vana Trol®	1:8	0	0	0	0	7
600	1:6	0	0	0	0	8
600	1:8	0	0	0	0	9
Heavy Duty Concrete Cleaner	1:4	0	0	0	0	10
Heavy Duty Concrete Cleaner	1:6	0	0	0	0	11

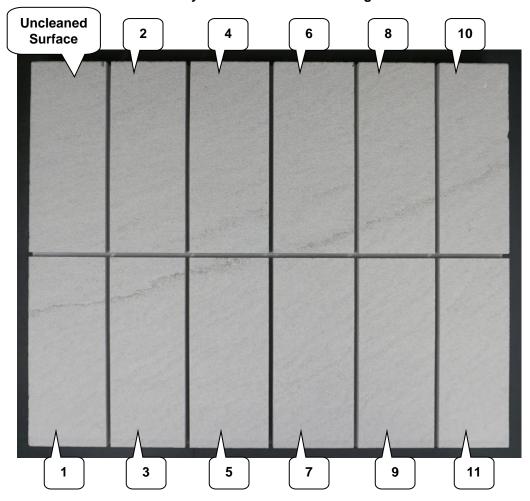
"Beige" Sandstone After Cleaning





Name: "Grey" Sandstone						
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining	Key
2010 All Surface Cleaner®	1:10	0	0	0	0	1
Safety Klean	1:2	0	0	0	0	2
Safety Klean	1:3	0	0	0	0	3
Light Duty Concrete Cleaner	1:2	0	0	0	0	4
Light Duty Concrete Cleaner	1:3	0	0	0	0	5
Vana Trol®	1:6	0	0	0	0	6
Vana Trol®	1:8	0	0	0	0	7
600	1:6	0	0	0	0	8
600	1:8	0	0	0	0	9
Heavy Duty Concrete Cleaner	1:4	0	0	0	0	10
Heavy Duty Concrete Cleaner	1:6	0	0	0	0	11

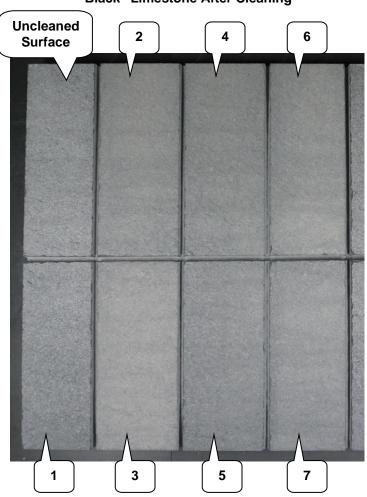
"Grey" Sandstone After Cleaning





Name: "Black" Limestone						
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining	Key
2010 All Surface Cleaner®	1:10	0	0	0	0	1
Safety Klean	1:2	3	1	0	0	2
Safety Klean	1:3	3	1	0	0	3
Light Duty Concrete Cleaner	1:2	2	1	0	0	4
Light Duty Concrete Cleaner	1:3	2	1	0	0	5
Vana Trol®	1:6	3	1	0	0	6
Vana Trol®	1:8	3	1	0	0	7

"Black" Limestone After Cleaning

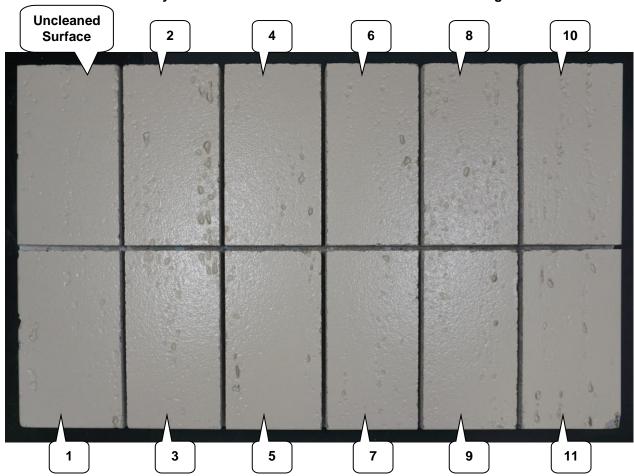


In accordance with the current PROSOCO, Inc. Product Data Sheet instructions, Sure Klean® 600 and Sure Klean® Heavy Duty Concrete Cleaner were omitted from testing on the "Black" limestone because they are not recommended for use on limestone.



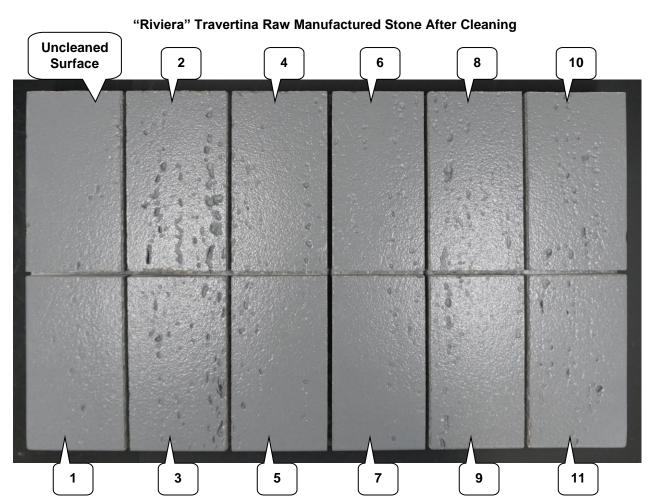
Name: "Ivory" Travertina Raw Manufactured Stone						
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining	Key
2010 All Surface Cleaner®	1:10	0	0	0	0	1
Safety Klean	1:2	0	0	0	0	2
Safety Klean	1:3	0	0	0	0	3
Light Duty Concrete Cleaner	1:2	0	0	0	0	4
Light Duty Concrete Cleaner	1:3	0	0	0	0	5
Vana Trol®	1:6	0	0	0	0	6
Vana Trol®	1:8	0	0	0	0	7
600	1:6	0	0	0	0	8
600	1:8	0	0	0	0	9
Heavy Duty Concrete Cleaner	1:4	0	0	0	0	10
Heavy Duty Concrete Cleaner	1:6	0	0	0	0	11

"Ivory" Travertina Raw Manufactured Stone After Cleaning





Name: "Riviera" Travertina Raw Manufactured Stone						
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining	Key
2010 All Surface Cleaner®	1:10	0	0	0	0	1
Safety Klean	1:2	0	0	0	0	2
Safety Klean	1:3	0	0	0	0	3
Light Duty Concrete Cleaner	1:2	0	0	0	0	4
Light Duty Concrete Cleaner	1:3	0	0	0	0	5
Vana Trol®	1:6	0	0	0	0	6
Vana Trol®	1:8	0	0	0	0	7
600	1:6	0	0	0	0	8
600	1:8	0	0	0	0	9
Heavy Duty Concrete Cleaner	1:4	0	0	0	0	10
Heavy Duty Concrete Cleaner	1:6	0	0	0	0	11





CONCLUSIONS: New Construction Cleaning

In the cleaning tests conducted on the submitted sandstone and manufactured stone, none of the cleaners caused any change to the appearance.

In the cleaning tests conducted on the submitted limestone, Enviro Klean® 2010 All Surface Cleaner® diluted with ten parts water did not cause any change to the appearance.

Both dilutions of Sure Klean® Light Duty Concrete Cleaner resulted in a moderate amount of surface finish removal and a slight amount of substrate deterioration to the "Black" limestone. Both dilutions of Enviro Klean® Safety Klean and Sure Klean® Vana Trol® resulted in a significant amount of surface finish removal and a slight amount of substrate deterioration.

Based on the PROSOCO, Inc. Product Data Sheet instructions and because Sure Klean® Light Duty Concrete Cleaner showed the smallest amount of surface finish removal on the "Black" limestone, Sure Klean® Light Duty Concrete Cleaner was also tested at a dilution of six parts water. This additional testing also resulted in a moderate amount of surface finish removal and a slight amount of substrate deterioration.

Therefore, neither Enviro Klean® Safety Klean nor Sure Klean® Vana Trol® is recommended for use on the "Black" limestone and Sure Klean® Light Duty Concrete Cleaner should be tested on a small area onsite for suitable results before overall use.

When choosing the most appropriate product for the desired result:

- For cleaning and degreasing light-to-heavily soiled stone, tile, masonry, and concrete Test Enviro Klean® 2010 All Surface Cleaner®
- For an effective, safe alternative to acidic cleaning compounds Test Enviro Klean® Safety Klean
- For common construction and atmospheric staining Test Sure Klean® Light Duty Concrete Cleaner
- For new masonry surfaces that are subject to vanadium, manganese, and other metallic stains Test Sure Klean® Vana Trol®
- For a general purpose, concentrated acidic cleaner Test Sure Klean® 600
- For removal of concrete splashes, excess mortar, retarders, heavy efflorescence, embedded stains, rust and surface soiling – Test Sure Klean® Heavy Duty Concrete Cleaner

It is recommended that the selected cleaners always be used in the lowest possible concentration. 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 cleaning product and procedures for a particular project. See product literature for additional application and product information.



RECOMMENDATIONS: New Construction Cleaning

Recommendations for cleaning the natural stone and manufactured stone submitted by Techo-Bloc, Saint-Hubert, Quebec 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	Maintenance Cleaning
"Beige" Sandstone		
"Grey" Sandstone	Enviro Klean® Safety Klean (1:2) or (1:3) OR Sure Klean® Light Duty Concrete Cleaner (1:2) or (1:3) OR Sure Klean® Vana Trol® (1:6) or (1:8)	
"Ivory" Travertina Raw Manufactured Stone	OR Sure Klean® 600 (1:6) or (1:8) OR OR Sure Klean® 600 (1:6) or (1:8) OR Sure Klean® Heavy Duty Concrete Cleaner (1:4) or (1:6)	Enviro Klean® 2010 All Surface Cleaner® (1:10)
"Riviera" Travertina Raw Manufactured Stone		
"Black" Limestone	Sure Klean® Light Duty Concrete Cleaner (1:2) to (1:6)	

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

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 samples were cleaned with Enviro Klean® 2010 All Surface Cleaner® diluted with ten parts water. After the samples had dried for at least 24 hours, PROSOCO® Saltguard® WB, PROSOCO® SL100 Water Repellent, Sure Klean® Weather Seal Natural Stone Treatment WB, Sure Klean® Weather Seal Sand Joint Stabilizer, and Sure Klean® Weather Seal Satin Guard WB were applied in a brushing application in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. The treatments were allowed to cure for at least 72 hours prior to testing.

In accordance with the current PROSOCO, Inc. Product Data Sheet instructions, PROSOCO® Saltguard® WB and PROSOCO® SL100 Water Repellent were omitted from testing on the "Black" limestone because they are not recommended for use on limestone.

As instructed by the manufacturer, the "Ivory" and "Riviera" Travertina Raw manufactured stone samples were omitted from treatment testing because they are factory sealed (Klean-Bloc technology). Additionally, the Techo-Bloc Care Guide states, "Applying a protectant to this product collection is not necessary nor is it recommended."

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 samples.

The following scale was used for reporting results of both categories:	
0 - No enhancement compared to untreated control	
1 – Slight enhancement compared to untreated control	
2 - Moderate enhancement compared to untreated control	
3 - Significant enhancement compared to untreated control	



TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement

"Beige" Sandstone	Color Enhancement	Sheen Enhancement
PROSOCO® Saltguard® WB	0	0
PROSOCO® SL100 Water Repellent	0	0
Sure Klean® Weather Seal Natural Stone Treatment WB	0	0
Sure Klean® Weather Seal Sand Joint Stabilizer	1	1
Sure Klean® Weather Seal Satin Guard WB	1	2

"Beige" Sandstone with Treatments





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

"Grey" Sandstone	Color Enhancement	Sheen Enhancement
PROSOCO® Saltguard® WB	0	0
PROSOCO® SL100 Water Repellent	0	0
Sure Klean® Weather Seal Natural Stone Treatment WB	0	0
Sure Klean® Weather Seal Sand Joint Stabilizer	1	1
Sure Klean® Weather Seal Satin Guard WB	1	2

"Grey" Sandstone with Treatments

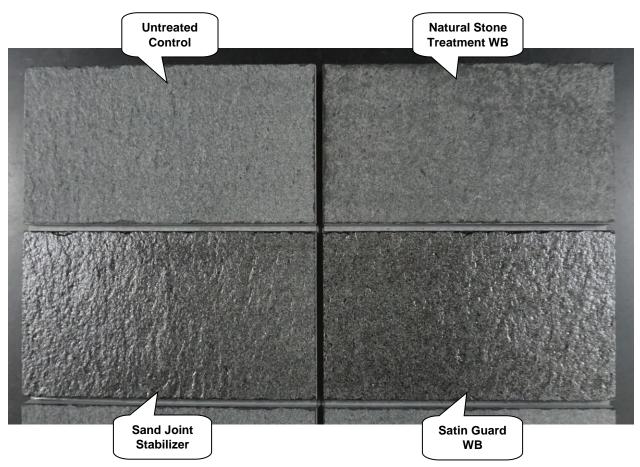




TEST RESULTS AND PHOTOGRAPHS: Color and Sheen Enhancement (cont.)

"Black" Limestone	Color Enhancement	Sheen Enhancement
Sure Klean® Weather Seal Natural Stone Treatment WB	1	0
Sure Klean® Weather Seal Sand Joint Stabilizer	2	2
Sure Klean® Weather Seal Satin Guard WB	2	2

"Black" Limestone with Treatments





CONCLUSIONS: Color and Sheen Enhancement

The treatments evaluated provided a range of color enhancement results, from no change in appearance to a moderate change depending on the treatment.

Sure Klean® Weather Seal Sand Joint Stabilizer provided a slight to moderate amount of sheen enhancement on the submitted samples. Sure Klean® Weather Seal Satin Guard WB provided a moderate amount of sheen enhancement on the submitted samples. None of the other treatments provided any sheen enhancement to any of the submitted samples.

Please refer to pages 12-16 of the report for individual recommendations based on the desired result.

Enhancement levels may vary by substrate color, lighting, orientation application method, and other variables. Always test in the field to confirm intended results.

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: Color and Sheen Enhancement

Recommendations for color and sheen enhancement for each type of natural stone and manufactured stone submitted by Techo-Bloc, Saint-Hubert, Quebec are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Color and Sheen Enhancement
"Beige" Sandstone	
"Grey" Sandstone	Please refer to pages 12-16 of the report for individual recommendations based on the desired result.
"Black" Limestone	
"Ivory" Travertina Raw Manufactured Stone	Not applicable due to the Klean-Bloc technology
"Riviera" Travertina Raw Manufactured Stone	Not applicable due to the Klean-Bloc technology.

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.

Please refer to the Product Data Sheet or visit <u>www.prosoco.com/voccompliance</u> to confirm VOC compliance with individual district or state regulations.



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 <u>AA</u> Above Average water repellent performance would be reported for treatments which result in a loss of no more than:

 $5.0 \text{ mL} \times 20\% = 1.0 \text{ mL}$

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

 $5.0 \text{ mL} \times 50\% = 2.5 \text{ mL}$

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

 $5.0 \text{ mL} \times 50\% = 2.5 \text{ mL}$





TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

 $\underline{\mathbf{AA}}$ = Above Average $\underline{\mathbf{A}}$ = Average $\underline{\mathbf{BA}}$ = Below Average

"Beige" Sandstone	Results in mL loss	Ranking
Untreated Control	-0.0	
PROSOCO® Saltguard® WB	-0.0	<u>AA</u>
PROSOCO® SL100 Water Repellent	-0.0	<u>AA</u>
Sure Klean® Weather Seal Natural Stone Treatment WB	-0.0	<u>AA</u>

"Grey" Sandstone	Results in mL loss	Ranking
Untreated Control	-0.0	
PROSOCO® Saltguard® WB	-0.0	<u>AA</u>
PROSOCO® SL100 Water Repellent	-0.0	<u>AA</u>
Sure Klean® Weather Seal Natural Stone Treatment WB	-0.0	<u>AA</u>

"Black" Limestone	Results in mL loss	Ranking
Untreated Control	-0.0	
Sure Klean® Weather Seal Natural Stone Treatment WB	-0.0	<u>AA</u>

"Ivory" Travertina Raw Manufactured Stone	Results in mL loss	Ranking
Untreated Control	-0.0	-

"Riviera" Travertina Raw Manufactured Stone	Results in mL loss	Ranking
Untreated Control	-0.0	



CONCLUSIONS: Protective Water Repellents

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

Although none of the untreated areas in the 20 minute RILEM test absorbed any water, the treatments applied to the natural stone samples will likely provide long-term water repellent protection and help to prevent water-related staining.

RECOMMENDATIONS: Protective Water Repellents

Recommendations for water repellency for the natural stone and manufactured stone submitted by Techo-Bloc, Saint-Hubert, Quebec are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Water Repellency
"Beige" Sandstone	PROSOCO® Saltguard® WB OR
"Grey" Sandstone	PROSOCO® SL100 Water Repellent OR Sure Klean® Weather Seal Natural Stone Treatment WB
"Black" Limestone	Sure Klean® Weather Seal Natural Stone Treatment WB
"Ivory" Travertina Raw Manufactured Stone	Not applicable due to the Kleen Bloc technology
"Riviera" Travertina Raw Manufactured Stone	Not applicable due to the Klean-Bloc technology.

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

Please refer to the Product Data Sheet or visit www.prosoco.com/voccompliance to confirm VOC compliance with individual district or state regulations.

J. Lucas Comadoll

QC/Project Testing Technician

J. Dunas Comadoll

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF <u>THIRTY (30) DAYS</u> 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 <u>THIRTY (30) DAYS</u> 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.