Pallet Tag Program
Laboratory Report

Coronado Stone Products
Simpsonville, SC

Project No. 1903-04 PTP

Prepared For:

PROSOCO

Prepared By:

J. Lucas Comadoll
Project Testing Technician
AMT Laboratories

May 2019

LABORATORY REPORT

AMT Laboratories • 3741 Greenway Circle • Lawrence, Kansas 66046 • (888) 376-3600

FOR: Richard Post, Coronado Stone Products
cc: Jake Boyer, PROSOCO, Inc.
Al Morris, PROSOCO, Inc.

SUBJECT: Coronado Stone Products
Simpsonville, SC
Pallet Tag Evaluation

DATE: May 5, 2019
PROJECT: 1903-04 PTP

SAMPLES SUBMITTED:

Sample	Name	Color	Size
(2) Manufactured Stone	“French White French Limestone”	Buff	24” x 12” x 0.5”
(2) Manufactured Stone	“Country Beige French Limestone”	Buff	24” x 12” x 0.5”
(2) Manufactured Stone	“Black Forest French Limestone”	Gray	24” x 12” x 0.5”
(12) Manufactured Stone	“Antique Cream Old World Ledge”	Buff	Various Sizes
(12) Manufactured Stone	“Etowah Old World Ledge”	Brown	Various Sizes
(12) Manufactured Stone	“Huron Old World Ledge”	Black/Gray	Various Sizes

SUBMITTED BY: Connie Saxon
Coronado Stone Products
2806 Grandview Drive
Simpsonville, SC 29680

PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted manufactured stone.
- To determine the most appropriate PROSOCO, Inc. water repellent(s) for the submitted manufactured stone.

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® 2010 All Surface Cleaner (Maintenance Cleaning)	1:10

Water Repellency	**Dilution:**
Sure Klean® Weather Seal Siloxane PD	N/A*
Sure Klean® Weather Seal Siloxane WB Concentrate	1:9
PROSOCO® SLX100® Water & Oil Repellent	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® 2010 All Surface Cleaner were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the uncleaned surface of the submitted sample. Additionally, an evaluation using a soft bristled masonry brush and water alone was conducted to determine if this had any effect on the samples.

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.....3 minutes
   Vana Trol®.....3 minutes
   2010 All Surface Cleaner.....3 minutes
   Water alone.....3 minutes
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 45 degree fan spray tip was used for rinsing.

TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning

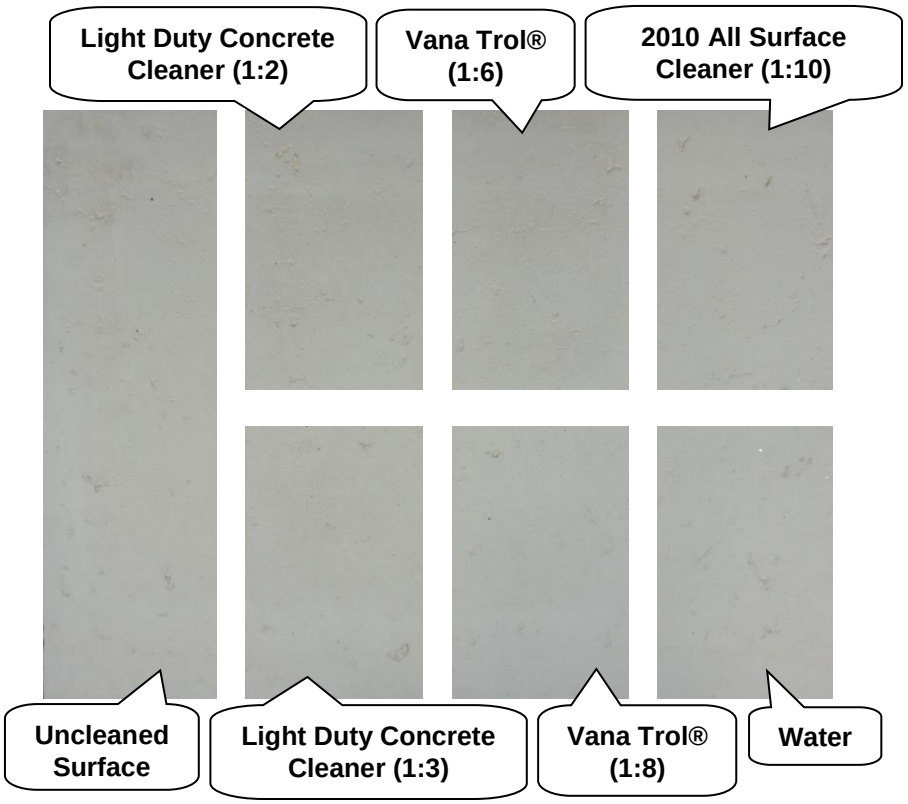
Scale used for reporting results of both categories:
0 – **No change** compared to uncleaned surface
1 – **Slight change** compared to uncleaned surface
2 – **Moderate change** compared to uncleaned surface
3 – **Significant change** compared to uncleaned surface

Name: "French White French Limestone"

Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Light Duty Concrete Cleaner	1:2	0	1*	0	0
Light Duty Concrete Cleaner	1:3	0	1*	0	0
Vana Trol®	1:6	0	1	0	0
Vana Trol®	1:8	0	1*	0	0
2010 All Surface Cleaner	1:10	0	0	0	0
Water	N/A	0	0	0	0

***NOTE: Very slight change compared to uncleaned surface.**

"French White French Limestone" After Cleaning

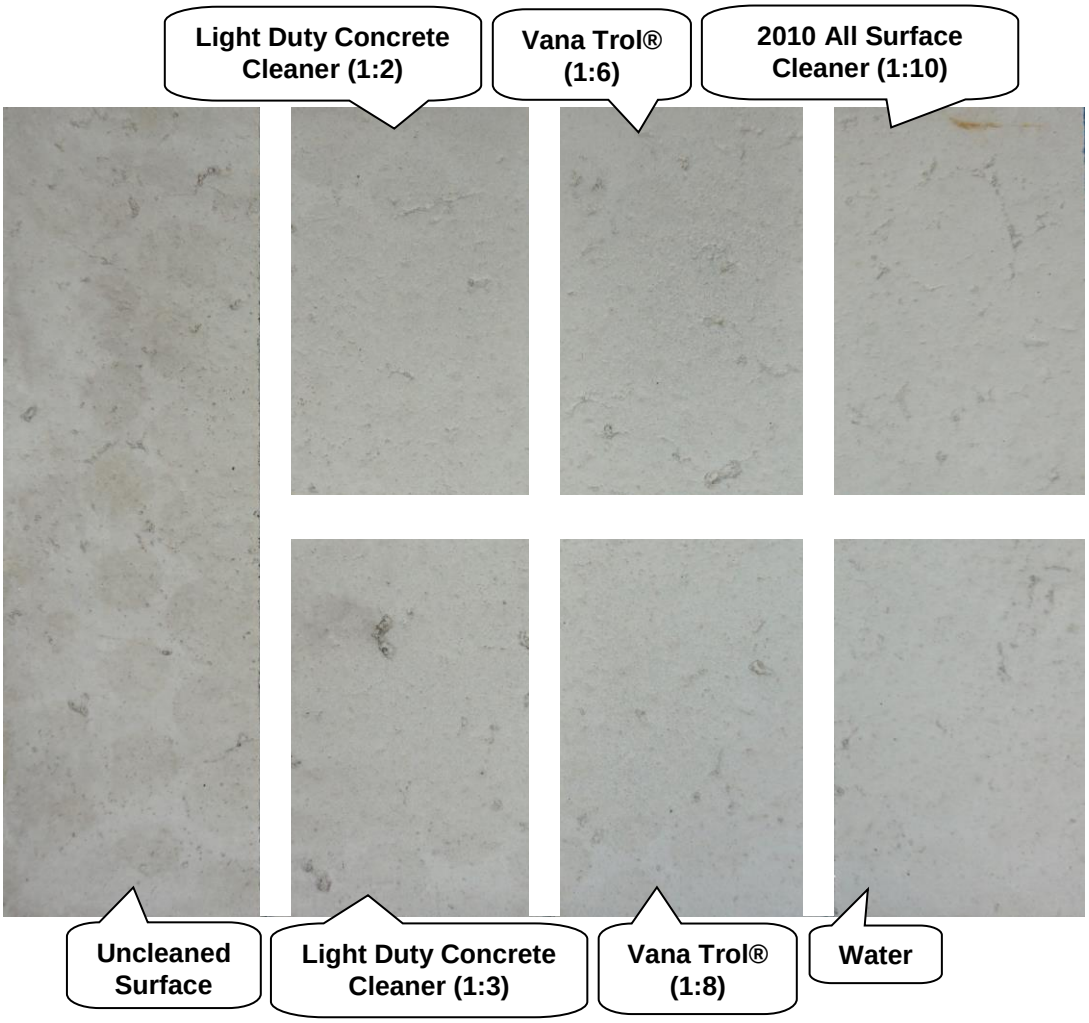


TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning (cont.)

Name: "Country Beige French Limestone"					
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	0	1*	0	0
Light Duty Concrete Cleaner	1:3	0	1*	0	0
Vana Trol®	1:6	0	1	0	0
Vana Trol®	1:8	0	2	0	0
2010 All Surface Cleaner	1:10	0	0	0	0
Water	N/A	0	0	0	0

***NOTE: Very slight change compared to uncleaned surface.**

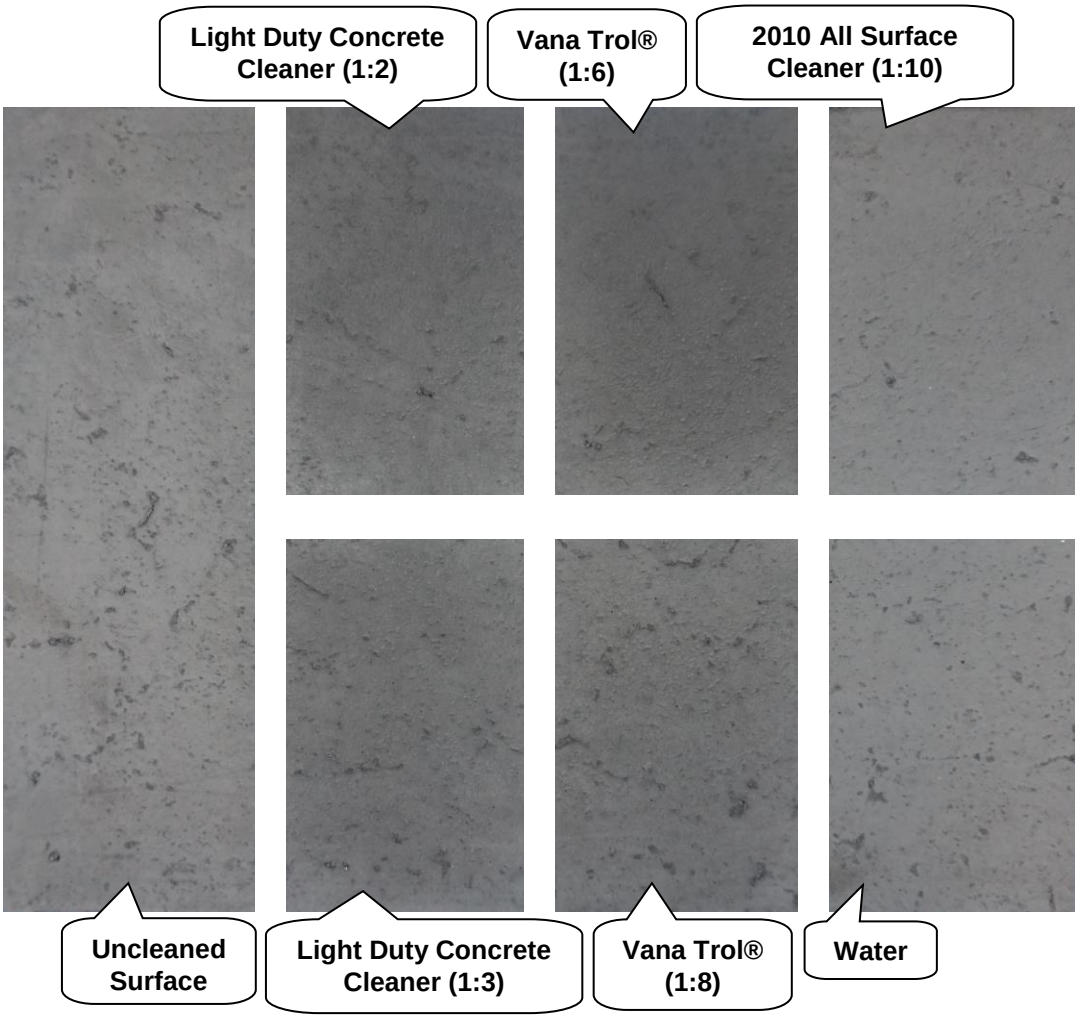
"Country Beige French Limestone" After Cleaning



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

Name: "Black Forest French Limestone"					
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	0	1	2	0
Light Duty Concrete Cleaner	1:3	0	1	2	0
Vana Trol®	1:6	0	2	3	0
Vana Trol®	1:8	0	1	2	0
2010 All Surface Cleaner	1:10	0	0	0	0
Water	N/A	0	0	0	0

"Black Forest French Limestone" After Cleaning

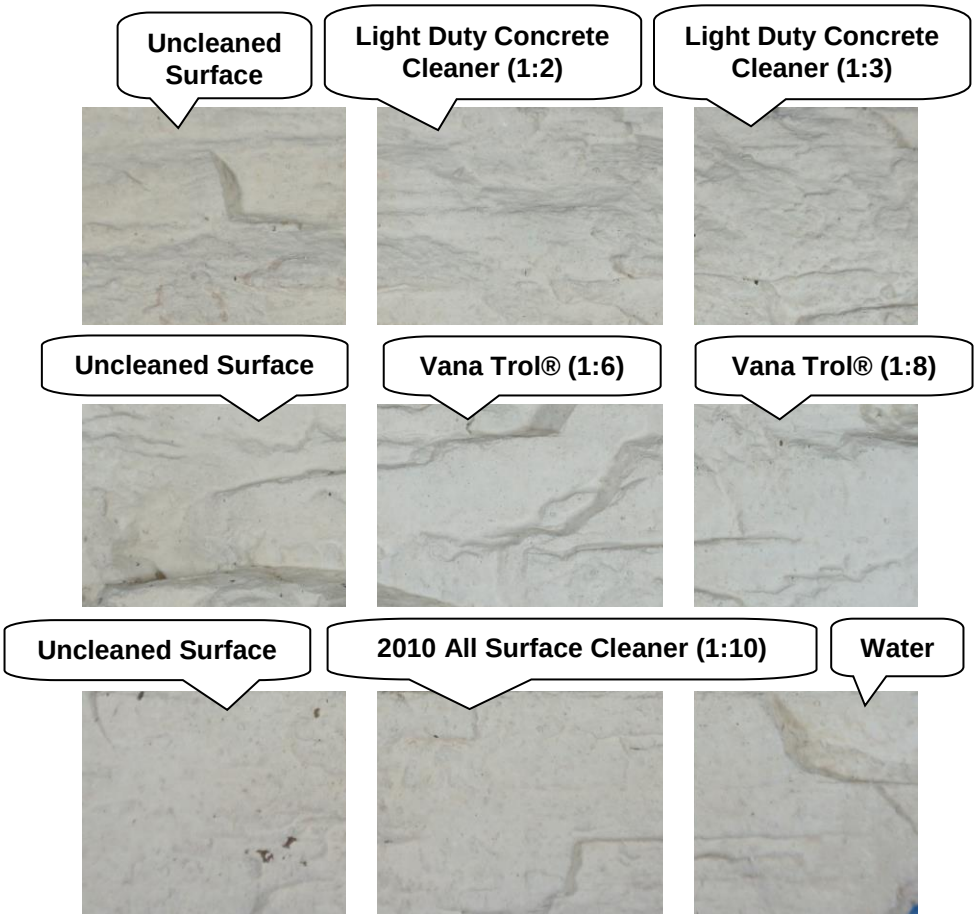


TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning (cont.)

Name: "Antique Cream Old World Ledge"					
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	0	0	1*	0
Light Duty Concrete Cleaner	1:3	0	0	1*	0
Vana Trol®	1:6	0	0	1	0
Vana Trol®	1:8	0	0	1	0
2010 All Surface Cleaner	1:10	0	0	0	0
Water	N/A	0	0	0	0

***NOTE: Very slight change compared to uncleaned surface.**

"Antique Cream Old World Ledge" After Cleaning



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

Name: "Etowah Old World Ledge"					
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	2	0	2	0
Light Duty Concrete Cleaner	1:3	2	0	2	0
Vana Trol®	1:6	3	0	3	0
Vana Trol®	1:8	3	0	3	0
2010 All Surface Cleaner	1:10	1*	0	1*	0
Water	N/A	1	0	1	0

***NOTE: Very slight change compared to uncleaned surface.**

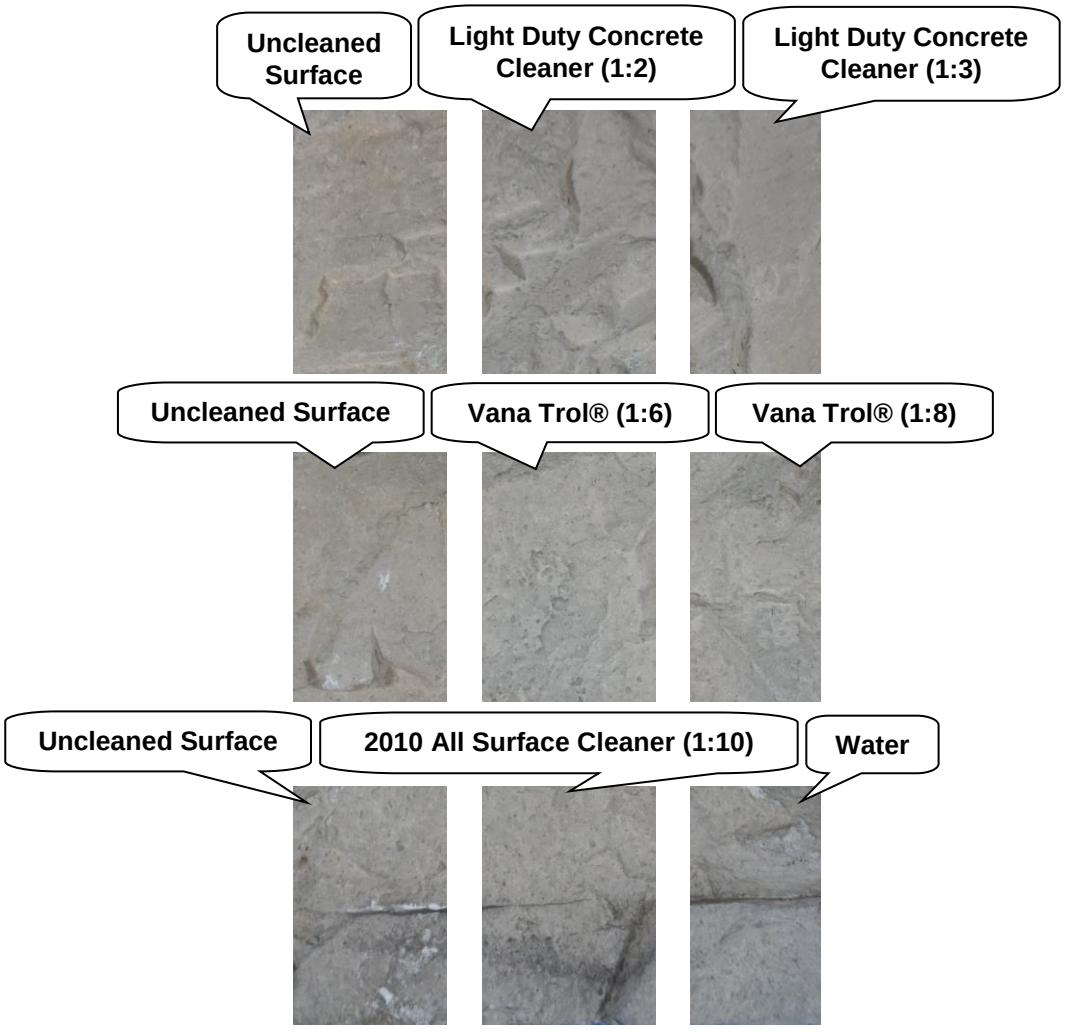
"Etowah Old World Ledge" After Cleaning

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

Name: "Huron Old World Ledge"					
Product	**Dilution**	**Surface Finish Removal**	**Substrate Deterioration**	**Color Change**	**Staining**
Light Duty Concrete Cleaner	1:2	0	0	1*	0
Light Duty Concrete Cleaner	1:3	0	0	1*	0
Vana Trol®	1:6	0	0	1	0
Vana Trol®	1:8	0	0	1	0
2010 All Surface Cleaner	1:10	0	0	0	0
Water	N/A	0	0	0	0

***NOTE: Very slight change compared to uncleaned surface.**

"Huron Old World Ledge" After Cleaning



CONCLUSIONS – New Construction Cleaning

In most of the cleaning tests conducted, Sure Klean® Light Duty Concrete Cleaner removed some of the surface pigment, causing a very slight to slight change to the appearance of the submitted samples. Sure Klean® Vana Trol® removed some of the surface pigment, causing a very slight to moderate change to the appearance of the submitted samples. Enviro Klean® 2010 All Surface Cleaner did not cause any change to the appearance of the submitted samples.

Sure Klean® Light Duty Concrete Cleaner and Sure Klean® Vana Trol® exposed a metallic aggregate on the “French White French Limestone”, “Country Beige French Limestone”, and “Black Forest French Limestone” samples.

Worth noting, brushing with water alone removed some of the surface finish of the “Etowah Old World Ledge” sample.

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. Enviro Klean® 2010 All Surface Cleaner contains no harsh acids, caustics, or solvents making it ideal delicate substrates or for general purpose cleaning.

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 manufactured stone submitted by Coronado Stone Products, Simpsonville, SC 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
"French White French Limestone"	Sure Klean® Light Duty Concrete Cleaner (1:2) or (1:3) OR Sure Klean® Vana Trol® (1:8) OR Enviro Klean® 2010 All Surface Cleaner (1:10)
"Country Beige French Limestone"	Sure Klean® Light Duty Concrete Cleaner (1:2) or (1:3) OR Enviro Klean® 2010 All Surface Cleaner (1:10)
"Black Forest French Limestone"	Sure Klean® Light Duty Concrete Cleaner (1:2) or (1:3) OR Sure Klean® Vana Trol® (1:8) OR Enviro Klean® 2010 All Surface Cleaner (1:10)
"Antique Cream Old World Ledge"	Sure Klean® Light Duty Concrete Cleaner (1:2) or (1:3) OR Enviro Klean® 2010 All Surface Cleaner (1:10)
"Etowah Old World Ledge"	Enviro Klean® 2010 All Surface Cleaner (1:10)
"Huron Old World Ledge"	Sure Klean® Light Duty Concrete Cleaner (1:2) or (1:3) OR Enviro Klean® 2010 All Surface Cleaner (1:10)

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 manufactured stone was 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 a brushing application in accordance with the current PROSOCO, Inc. Product Data Sheet instructions.

TEST METHODS: Protective Water Repellents

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

The water absorption tube test simulating wind driven rain conditions was performed on the submitted manufactured stone. Tests were run with 5.0-milliliter head pressures. Filled to 5.0 milliliters, a water absorption tube produces a 98 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:

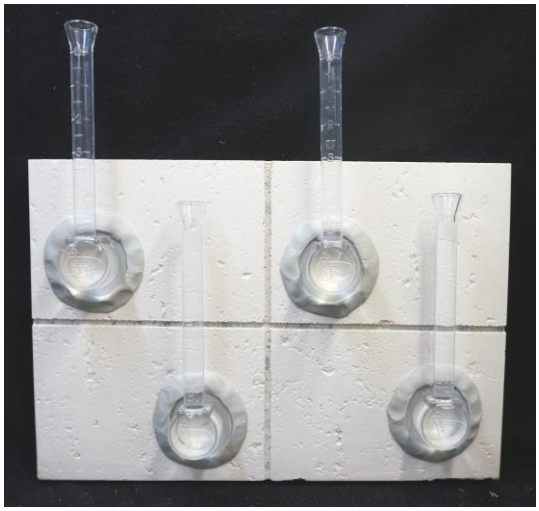
5.0 mL × 20% = **1.0 mL**

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**



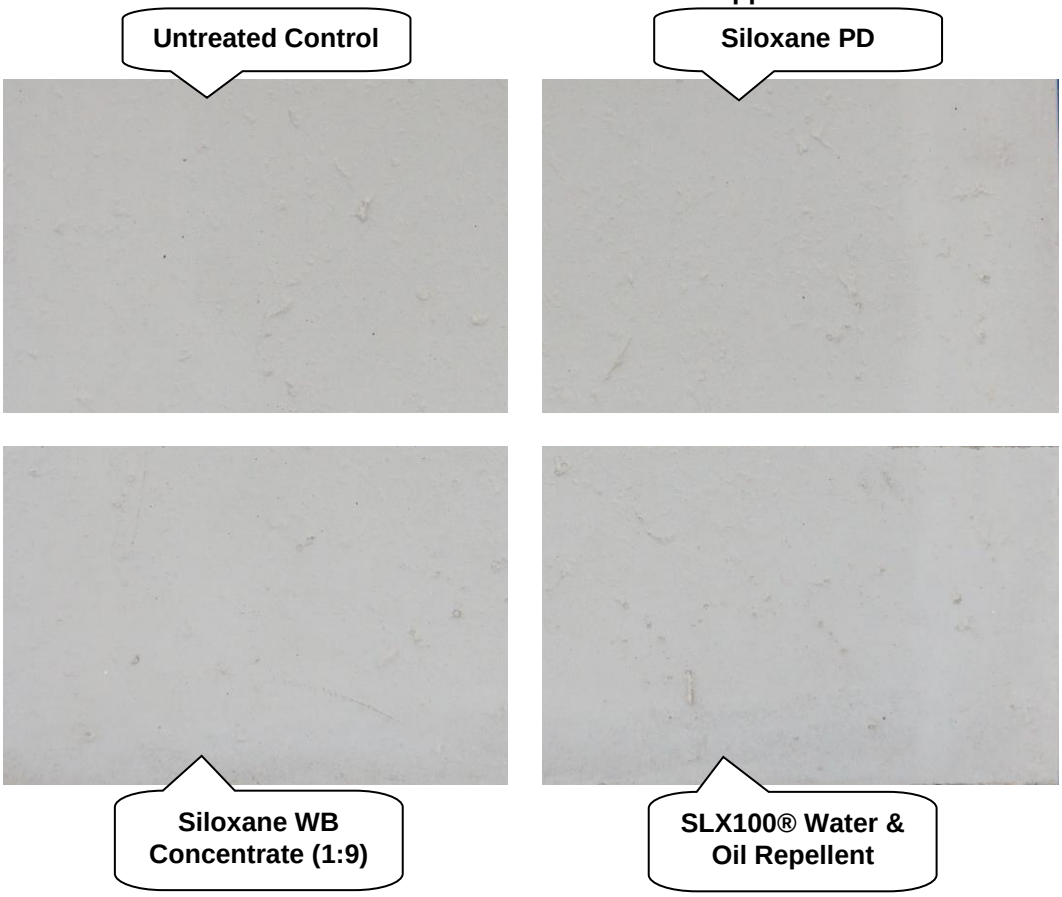
TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

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

"French White French Limestone"	Results in mL loss	Ranking
Untreated Control	-0.2	--
Sure Klean® Weather Seal Siloxane PD	-0.0	**AA**
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**

"French White French Limestone" After Application



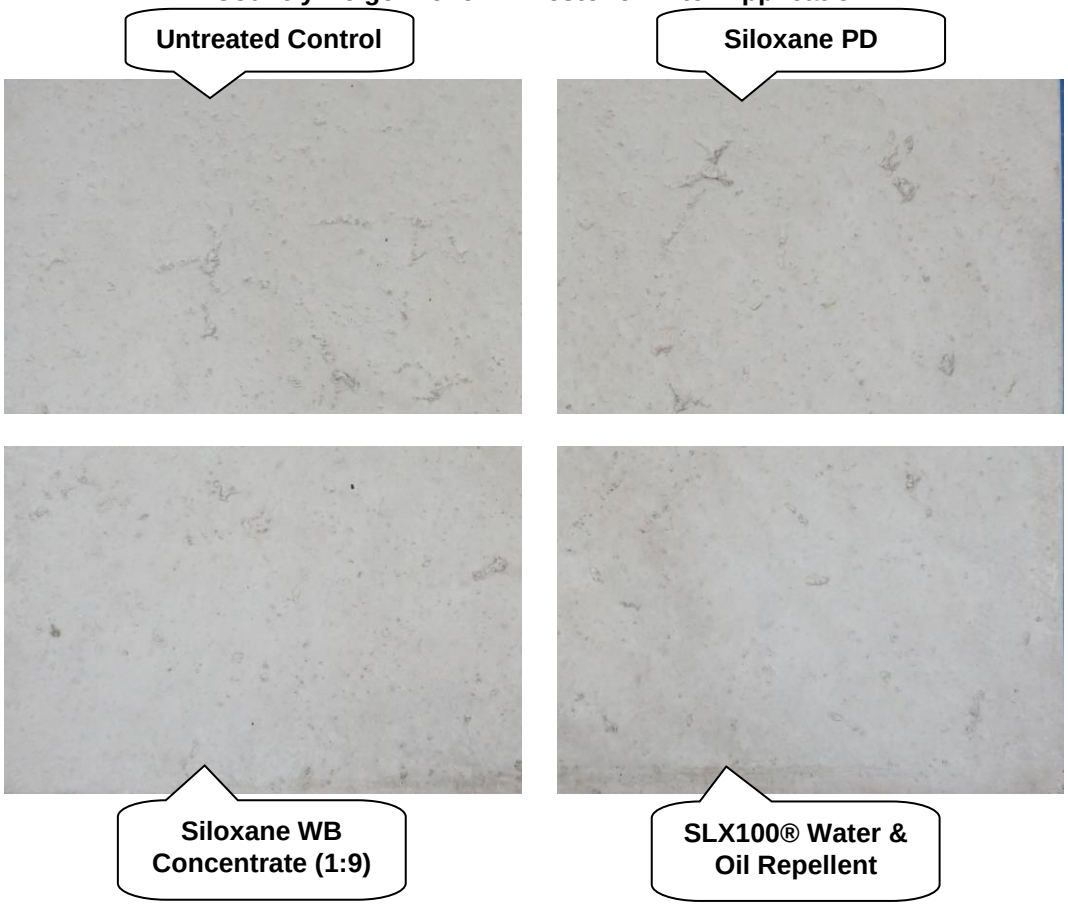
TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

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

"Country Beige French Limestone"	Results in mL loss	Ranking
Untreated Control	-0.5	--
Sure Klean® Weather Seal Siloxane PD	-0.0	**AA**
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.1	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**

"Country Beige French Limestone" After Application



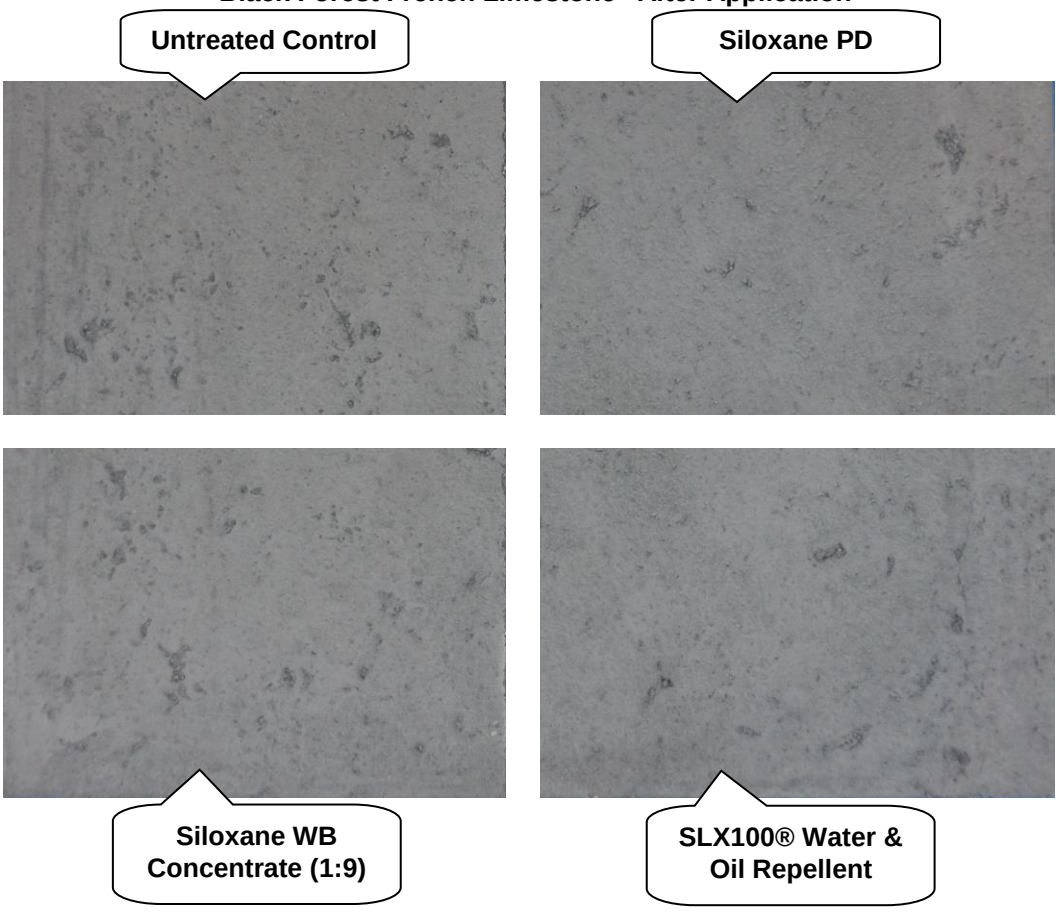
TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

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

"Black Forest French Limestone"	Results in mL loss	Ranking
Untreated Control	-0.2	--
Sure Klean® Weather Seal Siloxane PD	-0.0	**AA**
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**

"Black Forest French Limestone" After Application



TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

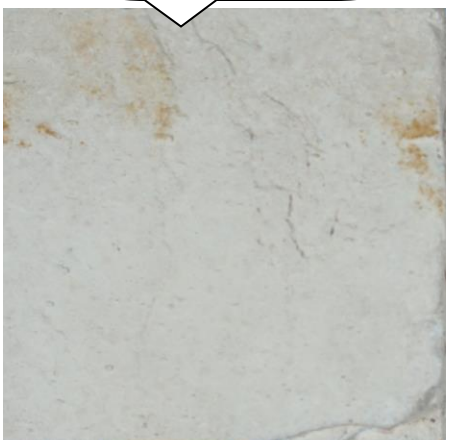
Water Absorption Tube Test: Vertical RILEM II.4, 5.0 milliliters, 20 minutes

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

"Antique Cream Old World Ledge"	Results in mL loss	Ranking
Untreated Control	-0.0	--
Sure Klean® Weather Seal Siloxane PD	-0.0	**AA**
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**

"Antique Cream Old World Ledge" After Application

Untreated Control



Siloxane PD

Siloxane WB Concentrate (1:9)

SLX100® Water & Oil Repellent

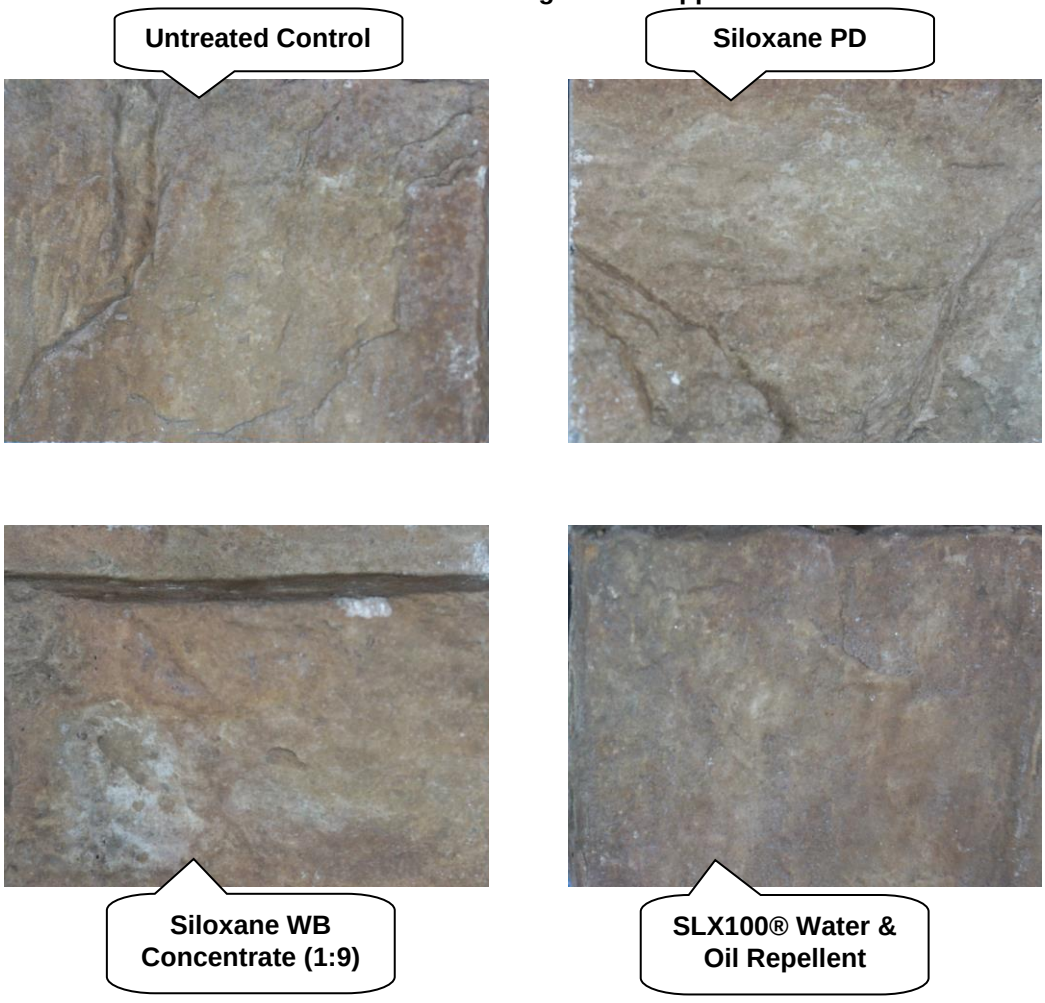
TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

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

"Etowah Old World Ledge"	Results in mL loss	Ranking
Untreated Control	-0.2	--
Sure Klean® Weather Seal Siloxane PD	-0.0	**AA**
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**

"Etowah Old World Ledge" After Application



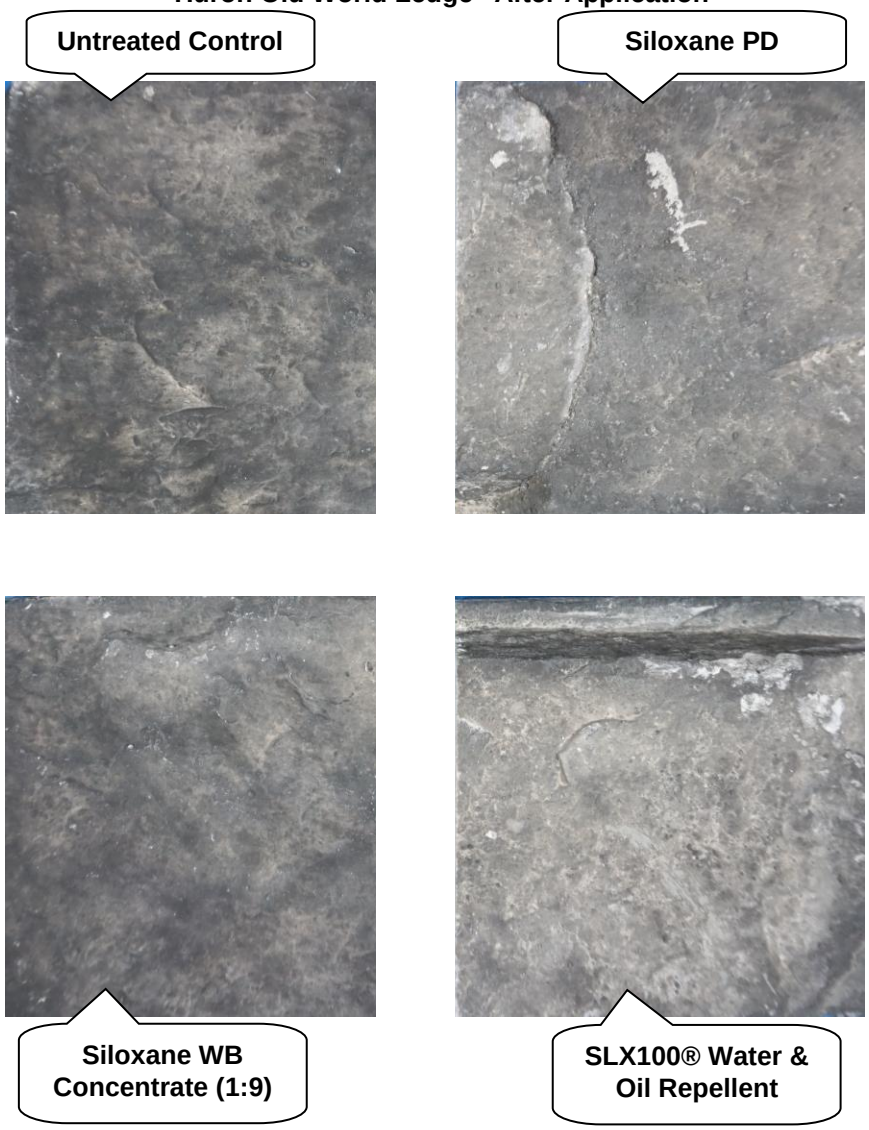
TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

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

"Huron Old World Ledge"	Results in mL loss	Ranking
Untreated Control	-0.5	--
Sure Klean® Weather Seal Siloxane PD	-0.0	**AA**
Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)	-0.0	**AA**
PROSOCO® SLX100® Water & Oil Repellent	-0.0	**AA**

"Huron Old World Ledge" After Application



CONCLUSIONS: Protective Water Repellents

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

None of the treatments caused any change to the appearance of the samples.

RECOMMENDATIONS: Water Repellency

Recommendations for water repellency for each type of manufactured stone submitted by Coronado Stone Products, Simpsonville, SC are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	New Construction Cleaning
"French White French Limestone"	Sure Klean® Weather Seal Siloxane PD OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9) OR PROSOCO® SLX100® Water & Oil Repellent
"Country Beige French Limestone"	
"Black Forest French Limestone"	
"Antique Cream Old World Ledge"	
"Etowah Old World Ledge"	
"Huron Old World Ledge"	

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

J. Lucas Comadoll
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.