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Attachments

 Technical Services TECH Note RILEM Tube Test Procedures

 Product Data literature for all products evaluated

Submitted Information**For:** James Holt**Subject:** Southland Brick & Block
Murfreesboro, TN**Date:** August 16, 2007**Project:** 0707-05 PTP**Samples Submitted:** 16 types of Split-Face and 16 types of Smooth-Face CMUs

Name	Color	Type	Size
"Marble White"	White	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Cameo"	Pink	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Antique White"	Buff	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Marigold"	Orange	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Ensworth"	Tan	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Burlington"	Dark Red	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Fawn"	Dark Green	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Sandstone"	Dark Brown	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Bristol"	Brown	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Brick Red"	Red	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Dover"	Dark Gray	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Camden"	Light Brown	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Silverstone"	Light Gray	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Granite Red"	Light Red	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Mahogany"	Brown	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"
"Onyx"	Dark Gray	Split-Face Smooth-Face	15 ½" x 3 ¾" x 2 ¼"

Submitted by: James Holt

Introduction

Architectural Materials Testing (AMT) Laboratories is a Boyer Industries company that provides laboratory testing and consulting services for the construction industry. Laboratory testing includes evaluating chemical cleaning products and protective treatments for a variety of new and existing architectural materials.

This report includes descriptions of the PROSOCO, Inc. products and test methods that were used. Following test results and conclusions, the report provides recommendations for the most effective products and procedures.

Purpose of Testing

Sixteen types of split-face and sixteen types of smooth-face integrally colored CMUs, all with large, small and fine aggregate, were submitted for testing to AMT Laboratories by PROSOCO, Inc. to determine the optimum cleaning/cure time combination for complete removal of mortar and related new construction soiling. The effectiveness of protective water repellents and graffiti control products suitable for CMUs was also evaluated.

New Construction Cleaning – Sure Klean® Custom Masonry Cleaner was evaluated to determine the optimal concentration of cleaner for removal of laboratory applied mortar which also leaves the external surface looking most like the natural through-body color of the CMU.

To simulate new construction soiling all samples were placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall were positioned on top of each sample and filled with a wet mixture of Type S mortar. The wet, mortar-filled cylinder was allowed to remain in contact with the samples for 10 minutes before removal.

Heavy deposits of mortar were removed with dry scraping after 24 hours. Prepared cleaning solutions were then evaluated for their effectiveness in removing residual Type S mortar staining after 3 days, 7 days, and 14 days of curing.

Color uniformity was evaluated by comparing aggregate exposure and surface pigment alteration/removal of each cleaned surface compared to the natural through-body color of the CMU.

Aggregate Exposure is the visual examination comparing aggregate exposure of the interior, through-body section of the CMU to surfaces cleaned with selected product(s) at given dilutions.

Surface Pigment Alteration/Removal is the visual examination comparing the pigmentation of the interior, through-body section of the CMU to surfaces cleaned with selected product(s) at given dilutions.

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

- | | |
|--|---------------------------------------|
| 0 – Worst match to through-body | 3 – Good match to through-body |
| 1 – Poor match to through-body | 4 – Best match to through-body |
| 2 – Fair match to through-body | |

NOTE: When cleaning integrally colored CMUs.

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

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

Protective Water Repellents – Sure Klean® Custom Masonry Sealer and Sure Klean® Weather Seal Siloxane WB Concentrate were evaluated for their ability to provide water repellency to the submitted samples.

Graffiti Control – Sure Klean® Weather Seal Blok-Guard® & Graffiti Control and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II were evaluated for their ability to control graffiti on the submitted samples. Sure Klean® Fast Acting Stripper and Defacer Eraser® Graffiti Wipe were evaluated for their ability to remove graffiti from the submitted samples.

Products Evaluated**New Construction Cleaning Products Evaluated**

Sample	Product	Dilution
All Submitted CMUs	Sure Klean® Custom Masonry Cleaner	1:2, 1:4, 1:6

Protective Water Repellent Products Evaluated

Sample	Product	Dilution
All Submitted CMUs	Sure Klean® Custom Masonry Sealer	Concentrate
	Sure Klean® Weather Seal Siloxane WB Concentrate	1:9

Graffiti Control Products Evaluated

Sample	Product	Dilution
All Submitted CMUs	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Concentrate
	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	Concentrate

Graffiti Removal Products Evaluated

Sample	Product	Dilution
All Submitted CMUs	Sure Klean® Fast Acting Stripper	Concentrate
	Defacer Eraser® Graffiti Wipe	Concentrate

New Construction Cleaning

These cleaning trials were conducted to determine the optimal concentration of cleaner to most efficiently remove Type S mortar from the submitted samples while providing the best color uniformity when compared to the through-body color of the submitted CMUs.

Description of Products Evaluated – New Construction Cleaning

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

Sample Preparation – New Construction Cleaning

Type S mortar was prepared in compliance with the manufacturer's instructions, applied to the samples and allowed to cure for 3, 7, and 14 days. Mortar removal was accomplished using chemical assistance and a high-pressure water rinse with pressure rinsing equipment. The removal of Type S masonry mortar was visually evaluated after 3, 7, and 14 days of curing. A visual examination was also made to determine the optimal dilution of the tested cleaners that provides the best color uniformity when compared to the through-body color of the CMUs.

Test Method – New Construction Cleaning

Chemical cleaners were evaluated using the following procedure:

1. Pre-wet the surface with water.
2. Apply at the appropriate dilutions.
3. Allow appropriate dwell time, as specified.
Sure Klean® Custom Masonry Cleaner.....3 minutes
4. Reapply the product and moderately agitate with a brush.
5. Pressure rinse thoroughly.*
6. Allow the sample to dry for at least 18 hours and visually examine.
7. Break the sample in half and compare the through-body surfaces to the cleaned surfaces for the best match.

***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 – New Construction Cleaning**Cleaning Effectiveness (% Type S Mortar Removal)**

“Marble White” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	95%
“Cameo” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Antique White” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	95%
Custom Masonry Cleaner	1:4	100%	85%	90%
Custom Masonry Cleaner	1:6	100%	95%	85%
“Marigold” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	98%	100%
“Ensworth” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Burlington” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Fawn” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Sandstone” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%

Test Results – New Construction Cleaning**Cleaning Effectiveness (% Type S Mortar Removal)**

“Bristol” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	98%	100%
Custom Masonry Cleaner	1:6	100%	98%	100%
“Brick Red” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Dover” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	96%	100%	100%
“Camden” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Silverstone” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Granite Red” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	98%
Custom Masonry Cleaner	1:6	100%	100%	98%
“Mahogany” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Onyx” Split-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%

Test Results – New Construction Cleaning**Cleaning Effectiveness (% Type S Mortar Removal)**

“Marble White” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	95%
“Cameo” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Antique White” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	95%	100%	100%
Custom Masonry Cleaner	1:6	95%	100%	100%
“Marigold” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Ensworth” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Burlington” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	95%
Custom Masonry Cleaner	1:6	100%	100%	80%
“Fawn” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	95%	100%
Custom Masonry Cleaner	1:6	100%	95%	100%
“Sandstone” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%

Test Results – New Construction Cleaning**Cleaning Effectiveness (% Type S Mortar Removal)**

“Bristol” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	98%	100%
Custom Masonry Cleaner	1:6	100%	97%	100%
“Brick Red” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	96%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Dover” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	95%
Custom Masonry Cleaner	1:4	100%	100%	95%
Custom Masonry Cleaner	1:6	100%	100%	95%
“Camden” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Silverstone” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Granite Red” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	95%
Custom Masonry Cleaner	1:6	100%	100%	90%
“Mahogany” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%
“Onyx” Smooth-Face CMU				
Product	Dilution	3 day	7 day	14 day
Custom Masonry Cleaner	1:2	100%	100%	100%
Custom Masonry Cleaner	1:4	100%	100%	100%
Custom Masonry Cleaner	1:6	100%	100%	100%

Test Results – Color Uniformity

Substrate: Split-Face CMU		Pigment Color: “Marble White”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Split-Face CMU		Pigment Color: “Cameo”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: “Antique White”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: “Marigold”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: “Ensworth”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: “Burlington”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: “Fawn”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4

Scale used for reporting results of both categories

- 0 – **Worst** match to through-body 3 – **Good** match to through-body
 1 – **Poor** match to through-body 4 – **Best** match to through-body
 2 – **Fair** match to through-body

Test Results – Color Uniformity

Substrate: Split-Face CMU		Pigment Color: "Sandstone"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: "Bristol"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: "Brick Red"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Split-Face CMU		Pigment Color: "Dover"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: "Camden"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: "Silverstone"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: "Granite Red"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4

Scale used for reporting results of both categories

- 0 – **Worst** match to through-body 3 – **Good** match to through-body
 1 – **Poor** match to through-body 4 – **Best** match to through-body
 2 – **Fair** match to through-body

Test Results – Color Uniformity

Substrate: Split-Face CMU		Pigment Color: "Mahogany"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Split-Face CMU		Pigment Color: "Onyx"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-Face CMU		Pigment Color: "Marble White"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-Face CMU		Pigment Color: "Cameo"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Smooth-Face CMU		Pigment Color: "Antique White"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Smooth-Face CMU		Pigment Color: "Marigold"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Smooth-Face CMU		Pigment Color: "Ensworth"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3

Scale used for reporting results of both categories

- 0 – **Worst** match to through-body 3 – **Good** match to through-body
 1 – **Poor** match to through-body 4 – **Best** match to through-body
 2 – **Fair** match to through-body

Test Results – Color Uniformity

Substrate: Smooth-Face CMU		Pigment Color: "Burlington"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-Face CMU		Pigment Color: "Fawn"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-Face CMU		Pigment Color: "Sandstone"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-Face CMU		Pigment Color: "Bristol"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-Face CMU		Pigment Color: "Brick Red"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Smooth-Face CMU		Pigment Color: "Dover"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Smooth-Face CMU		Pigment Color: "Camden"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3

Scale used for reporting results of both categories

- 0 – **Worst** match to through-body 3 – **Good** match to through-body
 1 – **Poor** match to through-body 4 – **Best** match to through-body
 2 – **Fair** match to through-body

Test Results – Color Uniformity

Substrate: Smooth-Face CMU		Pigment Color: “Silverstone”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	4	4
Custom Masonry Cleaner	1:4	4	4
Custom Masonry Cleaner	1:6	4	4
Substrate: Smooth-Face CMU		Pigment Color: “Granite Red”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	3	3
Custom Masonry Cleaner	1:4	3	3
Custom Masonry Cleaner	1:6	3	3
Substrate: Smooth-Face CMU		Pigment Color: “Mahogany”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	3	3
Substrate: Smooth-Face CMU		Pigment Color: “Onyx”	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:2	2	2
Custom Masonry Cleaner	1:4	2	2
Custom Masonry Cleaner	1:6	3	3

Scale used for reporting results of both categories

- | | |
|--|---------------------------------------|
| 0 – Worst match to through-body | 3 – Good match to through-body |
| 1 – Poor match to through-body | 4 – Best match to through-body |
| 2 – Fair match to through-body | |

Photographs – New Construction Cleaning

“Marble White” Smooth-Face CMU; 3 Day Cleaning



**Custom
Masonry
Cleaner (1:2)**

**Custom
Masonry Cleaner
(1:4)**

**Custom
Masonry
Cleaner (1:6)**

**Untreated
Control**

“Marble White” Smooth-Face CMU; 7 Day Cleaning



**Custom Masonry
Cleaner (1:2)**

**Custom Masonry
Cleaner (1:4)**

**Custom
Masonry
Cleaner (1:6)**

**Untreated
Control**

“Marble White” Smooth-Face CMU; 14 Day Cleaning



**Custom
Masonry
Cleaner (1:2)**

**Custom Masonry
Cleaner (1:4)**

**Custom
Masonry
Cleaner (1:6)**

**Untreated
Control**

Photographs – Color Uniformity**“Marble White” Smooth-Face CMU; Color Uniformity**

Custom Masonry
Cleaner (1:2)

Custom Masonry
Cleaner (1:4)

Custom Masonry
Cleaner (1:6)

Through-body

Conclusions – New Construction Cleaning

Based on the test data, all of the submitted CMUs were efficiently cleaned with Sure Klean® Custom Masonry Cleaner.

Use higher concentrations and surface agitation to maximize aggregate exposure. Use low concentration and surface agitation to minimize aggregate exposure.

Recommendations – New Construction Cleaning

Recommendations for cleaning for each type of CMU submitted by Southland Brick & Block, Murfreesboro, TN are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while providing the best match to the through-body color of the CMUs.

Sample	New Construction Cleaning (Type S mortar, 14 day cleaning)
“Antique White” Split-Face CMU “Burlington” Smooth-Face CMU	Sure Klean® Custom Masonry Cleaner (1:2) or (1:4)
“Marble White” Split-Face CMU “Antique White” Smooth-Face CMU “Cameo” Smooth-Face CMU “Brick Red” Split-Face CMU “Mahogany” Smooth-Face CMU	Sure Klean® Custom Masonry Cleaner (1:4) or (1:6)
“Onyx” Smooth-Face CMU	Sure Klean® Custom Masonry Cleaner (1:6)
All Other Submitted CMUs	Sure Klean® Custom Masonry Cleaner (1:2) OR (1:4) OR (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.

Protective Water Repellents

The testing described below evaluates the suitability of water repellent treatments.

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

1. Weatherproofing properties
 2. Color change
 3. Ease of application
-

Description of Products Evaluated – Protective Water Repellents

Sure Klean® Custom Masonry Sealer – A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, architectural concrete block, pre-cast concrete, wood and porous masonry. Custom Masonry Sealer penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering.

Sure Klean® Weather Seal Siloxane WB Concentrate – A self-emulsifying water repellent concentrate designed for dilution with fresh water at the job site. This solvent-free blend of silanes and oligomeric alkoxy siloxanes mixes easily with water to produce a penetrating water repellent ideal for application to dense or porous masonry surfaces.

Sample Preparation – Protective Water Repellents

The submitted samples were scored and allowed to dry for 24 hours prior to treatment. Both of the products were applied by brush in accordance with the current PROSOCO, Inc. Product Data Sheet application instructions. Both treatments were allowed to cure for at least 72 hours prior to testing.

Test Methods – Protective Water Repellents

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

The water absorption tube test simulating wind driven rain conditions was performed. This test simulates 60 mile per hour wind driven rain conditions for a period of 20 minutes. See Technical Services TECH Note RILEM Tube Test Procedures.

Test Results – Protective Water Repellents**Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes**

		Results
"Marble White" Split-Face CMU		
Untreated Control		53 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Cameo" Split-Face CMU		
Untreated Control		53 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Antique White" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Marigold" Split-Face CMU		
Untreated Control		47 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Ensworth" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Burlington" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Fawn" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Sandstone" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		58 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Bristol" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Brick Red" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Dover" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph

Test Results – Protective Water Repellents**Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes**

		<i>Results</i>
"Camden" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Silverstone" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Granite Red" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Mahogany" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Onyx" Split-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Marble White" Smooth-Face CMU		
Untreated Control		60 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Cameo" Smooth-Face CMU		
Untreated Control		60 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Antique White" Smooth-Face CMU		
Untreated Control		60 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Marigold" Smooth-Face CMU		
Untreated Control		60 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Ensworth" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Burlington" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph

Test Results – Protective Water Repellents**Water Absorption Tube Test: RILEM II.4, 60 mph, 20 Minutes**

		Results
"Fawn" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Sandstone" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Bristol" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Brick Red" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Dover" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Camden" Smooth-Face CMU		
Untreated Control		45 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Silverstone" Smooth-Face CMU		
Untreated Control		<40 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Granite Red" Smooth-Face CMU		
Untreated Control		59 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Mahogany" Smooth-Face CMU		
Untreated Control		59 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph
"Onyx" Smooth-Face CMU		
Untreated Control		59 mph
Sure Klean® Custom Masonry Sealer		60 mph
Sure Klean® Weather Seal Siloxane WB Concentrate		60 mph

Photographs – Protective Water Repellents

“Marble White” Split-Face CMU; RILEM II.4, 60 mph, 20 Minutes



**Sure Klean®
Custom Masonry
Sealer**

**Sure Klean®
Weather Seal
Siloxane WB
Concentrate (1:9)**

Untreated Control

Conclusions – Protective Water Repellents

Based upon laboratory evaluations, all of the products tested provided excellent water repellency to each of the submitted samples. Neither Sure Klean® Custom Masonry Sealer nor Sure Klean® Weather Seal Siloxane WB Concentrate (1:9) altered the appearance of any of the samples.

Recommendations – Protective Water Repellents

Recommendations for water repellency for each CMU submitted by Southland Brick & Block, Murfreesboro, TN are provided in the chart below. Recommendations are based on the treatment that proved most effective and can provide water repellency on all types submitted.

Sample	Protective Water Repellents
All Submitted CMUs	<p align="center">*Sure Klean® Custom Masonry Sealer OR Sure Klean® Weather Seal Siloxane WB Concentrate (1:9)</p>

***NOTE:** Sure Klean® Custom Masonry is manufactured and marketed in compliance with USEPA AIM VOC regulations (40 CFR 59.403). This product may not be suitable for sale in states and districts with more restrictive AIM VOC regulations.

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

Graffiti Control

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

Description of Products Evaluated – Graffiti Control

Graffiti Control Treatments

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control – A clear, solvent-based silicone elastomer formulated to weatherproof concrete block and other porous masonry materials. Blok-Guard® & Graffiti Control protects masonry surfaces from repeated graffiti attacks without altering the natural appearance. Blok-Guard® & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering. Graffiti removal is fast and easy using Defacer Eraser® Graffiti Wipe. Blok-Guard® & Graffiti Control is easy to apply with low-pressure spray, brush or roller.

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II – A clear-drying, water-based silicone emulsion for weatherproofing concrete block and other porous masonry materials. Blok-Guard® & Graffiti Control II also protects masonry surfaces from graffiti attacks without altering the natural appearance. Blok-Guard® & Graffiti Control II protects exterior walls exposed to normal weathering. Graffiti removal from treated surfaces is fast and easy using Defacer Eraser® Graffiti Wipe. Blok-Guard® & Graffiti Control II is easy to apply with low-pressure spray, brush or roller.

Products Evaluated for Graffiti Removal

Defacer Eraser® Graffiti Wipe – An easy-to-use graffiti remover that does not contain methanol, methylene chloride or other halogenated solvents prohibited on many projects. Graffiti Wipe removes a variety of graffiti stains from most smooth masonry, split-face concrete block, wood and metal surfaces.

Sure Klean® Fast Acting Stripper – A thixotropic stripping compound formulated specifically for removal of high strength paints and coatings such as epoxies, polyurethanes, and floor enamels. Additionally, Fast Acting Stripper dissolves most spray paints, marking pens, lacquers and other graffiti.

Graffiti Agents

Interior/Exterior Spray Paint (Red)
Permanent Marker (Green)
Permanent Marker (Red)
Permanent Marker (Black)

Sample Preparation – Graffiti Control

Sections of the CMUs were treated with Sure Klean® Weather Seal Blok-Guard® & Graffiti Control and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II in accordance with the current PROSOCO, Inc. Product Data Sheet application instructions and allowed to cure for at least one day. At the end of the cure period, a visual adverse effects evaluation was made and then the graffiti agents were applied to the substrates.

Spray paint and markers were applied as graffiti agents to all treated surfaces no sooner than one day following application of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control and Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Defacer Eraser® Graffiti Wipe and Sure Klean® Fast Acting Stripper.

Test Method – Graffiti Control

Chemical cleaners were evaluated using the following procedure:

1. Apply the product to a dry surface, soiled with graffiti.
2. Allow appropriate dwell time:
 Defacer Eraser® Graffiti Wipe5 minutes
 Sure Klean® Fast Acting Stripper20 minutes
3. Pressure 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 – Graffiti Control

“Marble White” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	5%	10%	5%	18%
Graffiti Wipe	25%	5%	10%	5%	11%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	20%	10%	10%	30%	18%
Graffiti Wipe	20%	10%	10%	30%	18%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	40%	10%	10%	20%	20%
Graffiti Wipe	15%	10%	10%	20%	14%
“Cameo” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	30%	5%	5%	5%	11%
Graffiti Wipe	5%	5%	5%	5%	5%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	20%	5%	5%	5%	9%
Graffiti Wipe	5%	5%	5%	5%	5%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	30%	5%	5%	5%	11%
Graffiti Wipe	10%	5%	5%	5%	6%
“Antique White” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	5%	5%	5%	6%
Graffiti Wipe	2%	5%	5%	5%	4%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	10%	10%	10%	11%
Graffiti Wipe	15%	10%	10%	10%	11%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	5%	5%	5%	6%
Graffiti Wipe	5%	5%	5%	5%	5%
“Marigold” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	5%	5%	5%	6%
Graffiti Wipe	5%	5%	5%	5%	5%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	20%	10%	10%	10%	13%
Graffiti Wipe	20%	10%	10%	10%	13%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	20%	20%	20%	21%
Graffiti Wipe	15%	10%	10%	10%	11%

Test Results – Graffiti Control

“Ensworth” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	5%	5%	5%	6%
Graffiti Wipe	5%	5%	5%	5%	5%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	10%	10%	10%	11%
Graffiti Wipe	20%	10%	10%	10%	13%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	30%	10%	10%	10%	15%
Graffiti Wipe	10%	10%	10%	10%	10%
“Burlington” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	20%	10%	5%	5%	10%
Graffiti Wipe	2%	10%	5%	5%	6%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	80%	80%	80%	66%
Graffiti Wipe	30%	80%	80%	80%	68%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	20%	20%	20%	30%
Graffiti Wipe	10%	20%	20%	20%	18%
“Fawn” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	35%	10%	10%	10%	16%
Graffiti Wipe	2%	5%	5%	5%	4%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	40%	60%	60%	60%	55%
Graffiti Wipe	35%	50%	50%	50%	46%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	35%	30%	30%	30%	31%
Graffiti Wipe	10%	30%	30%	35%	26%
“Sandstone” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	20%	20%	20%	16%
Graffiti Wipe	5%	10%	10%	10%	9%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	50%	50%	50%	44%
Graffiti Wipe	50%	50%	50%	50%	50%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	45%	45%	45%	40%	44%
Graffiti Wipe	15%	40%	35%	25%	29%

Test Results – Graffiti Control

“Bristol” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	70%	50%	80%	70%
Graffiti Wipe	5%	20%	20%	75%	30%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	85%	95%	95%	81%
Graffiti Wipe	65%	90%	90%	95%	85%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	60%	20%	50%	48%
Graffiti Wipe	5%	50%	20%	50%	31%
“Brick Red” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	10%	50%	80%	38%
Graffiti Wipe	60%	50%	60%	80%	63%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	90%	90%	90%	80%
Graffiti Wipe	60%	90%	90%	90%	83%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	90%	90%	90%	83%
Graffiti Wipe	20%	90%	90%	90%	73%
“Dover” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	80%	50%	50%	65%
Graffiti Wipe	5%	10%	50%	50%	29%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	80%	80%	80%	78%
Graffiti Wipe	5%	10%	50%	50%	29%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	80%	80%	80%	78%
Graffiti Wipe	30%	50%	50%	50%	45%
“Camden” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	10%	10%	10%	20%
Graffiti Wipe	20%	10%	10%	10%	13%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	20%	20%	20%	35%
Graffiti Wipe	70%	70%	20%	20%	38%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	75%	60%	80%	80%	74%
Graffiti Wipe	20%	40%	80%	80%	55%

Test Results – Graffiti Control

“Silverstone” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	45%	20%	20%	41%
Graffiti Wipe	10%	5%	10%	10%	9%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	60%	40%	40%	55%
Graffiti Wipe	60%	20%	20%	20%	30%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	40%	30%	30%	48%
Graffiti Wipe	50%	10%	10%	10%	20%
“Granite Red” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	10%	10%	10%	25%
Graffiti Wipe	10%	10%	10%	10%	10%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	65%	70%	70%	70%	69%
Graffiti Wipe	75%	50%	50%	50%	56%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	65%	30%	30%	30%	39%
Graffiti Wipe	30%	30%	30%	30%	30%
“Mahogany” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	25%	25%	25%	39%
Graffiti Wipe	10%	25%	25%	25%	21%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	25%	25%	25%	34%
Graffiti Wipe	40%	25%	25%	25%	29%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	25%	25%	25%	39%
Graffiti Wipe	50%	25%	25%	25%	31%
“Onyx” Split-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	70%	50%	50%	55%
Graffiti Wipe	20%	70%	50%	50%	48%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	70%	50%	50%	55%
Graffiti Wipe	35%	70%	50%	50%	51%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	70%	50%	50%	58%
Graffiti Wipe	45%	70%	50%	50%	54%

Test Results – Graffiti Control

“Marble White” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	5%	5%	5%	6%
Graffiti Wipe	5%	5%	5%	5%	5%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	5%	5%	5%	6%
Graffiti Wipe	15%	5%	5%	5%	8%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	5%	5%	5%	6%
Graffiti Wipe	10%	5%	5%	5%	6%
“Cameo” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	5%	10%	10%	10%	9%
Graffiti Wipe	2%	10%	10%	10%	8%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	20%	20%	20%	18%
Graffiti Wipe	15%	20%	20%	20%	19%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	5%	10%	10%	10%
Graffiti Wipe	2%	5%	10%	10%	7%
“Antique White” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	5%	5%	5%	6%
Graffiti Wipe	2%	5%	5%	5%	4%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	5%	5%	5%	8%
Graffiti Wipe	20%	5%	5%	5%	9%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	30%	5%	5%	5%	11%
Graffiti Wipe	20%	5%	5%	5%	9%
“Marigold” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	0%	0%	5%	5%
Graffiti Wipe	5%	0%	0%	5%	3%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	10%	10%	10%	11%
Graffiti Wipe	15%	10%	10%	10%	11%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	10%	10%	10%	14%
Graffiti Wipe	10%	10%	10%	10%	10%

Test Results – Graffiti Control

“Ensworth” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	10%	5%	5%	5%	6%
Graffiti Wipe	5%	5%	5%	5%	5%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	15%	10%	10%	10%	11%
Graffiti Wipe	20%	10%	10%	10%	13%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	30%	10%	10%	10%	15%
Graffiti Wipe	10%	10%	10%	10%	10%
“Burlington” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	20%	10%	5%	5%	10%
Graffiti Wipe	2%	10%	5%	5%	6%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	80%	80%	80%	66%
Graffiti Wipe	30%	80%	80%	80%	68%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	20%	20%	20%	30%
Graffiti Wipe	10%	20%	20%	20%	18%
“Fawn” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	35%	10%	10%	10%	16%
Graffiti Wipe	2%	5%	5%	5%	4%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	40%	60%	60%	60%	55%
Graffiti Wipe	35%	50%	50%	50%	46%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	35%	30%	30%	30%	31%
Graffiti Wipe	10%	30%	30%	35%	26%
“Sandstone” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	20%	20%	20%	16%
Graffiti Wipe	5%	10%	10%	10%	9%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	25%	50%	50%	50%	44%
Graffiti Wipe	50%	50%	50%	50%	50%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	45%	45%	45%	40%	44%
Graffiti Wipe	15%	40%	35%	25%	29%

Test Results – Graffiti Control

“Bristol” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	60%	60%	80%	73%
Graffiti Wipe	5%	60%	60%	80%	51%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	80%	80%	80%	73%
Graffiti Wipe	70%	80%	80%	80%	78%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	50%	50%	50%	55%
Graffiti Wipe	5%	50%	50%	80%	46%
“Brick Red” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	20%	20%	20%	20%	20%
Graffiti Wipe	10%	20%	20%	20%	18%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	50%	20%	20%	20%	28%
Graffiti Wipe	80%	20%	20%	20%	35%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	60%	60%	60%	65%
Graffiti Wipe	50%	60%	60%	60%	58%
“Dover” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	65%	30%	30%	30%	39%
Graffiti Wipe	5%	30%	30%	30%	24%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	40%	70%	95%	95%	75%
Graffiti Wipe	80%	70%	90%	90%	83%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	75%	50%	50%	40%	54%
Graffiti Wipe	10%	40%	40%	40%	38%
“Camden” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	10%	10%	10%	25%
Graffiti Wipe	10%	10%	10%	10%	10%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	65%	70%	75%	75%	71%
Graffiti Wipe	75%	50%	50%	50%	56%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	65%	30%	30%	30%	39%
Graffiti Wipe	30%	30%	30%	30%	30%

Test Results – Graffiti Control

“Silverstone” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	40%	40%	40%	53%
Graffiti Wipe	10%	10%	10%	10%	10%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	50%	50%	50%	58%
Graffiti Wipe	80%	70%	70%	70%	73%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	30%	30%	30%	45%
Graffiti Wipe	50%	30%	30%	30%	35%
“Granite Red” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	60%	20%	20%	20%	30%
Graffiti Wipe	50%	20%	20%	20%	28%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	40%	20%	20%	40%	30%
Graffiti Wipe	50%	20%	20%	40%	33%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	70%	20%	20%	50%	40%
Graffiti Wipe	80%	20%	20%	40%	40%
“Mahogany” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	75%	50%	40%	60%	56%
Graffiti Wipe	50%	50%	40%	60%	50%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	75%	40%	40%	60%	54%
Graffiti Wipe	60%	60%	60%	60%	60%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	80%	40%	40%	60%	55%
Graffiti Wipe	70%	60%	50%	60%	60%
“Onyx” Smooth-Face CMU					
Untreated Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	90%	40%	35%	35%	50%
Graffiti Wipe	25%	60%	60%	60%	51%
Blok-Guard® & Graffiti Control	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	75%	70%	70%	70%	71%
Graffiti Wipe	25%	70%	70%	70%	59%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Green Marker	Red Marker	% Avg. Removal
Fast Acting Stripper	85%	70%	70%	70%	74%
Graffiti Wipe	85%	70%	70%	70%	74%

Photographs – Graffiti Control

“Marigold Split Face CMU; Before Graffiti Removal

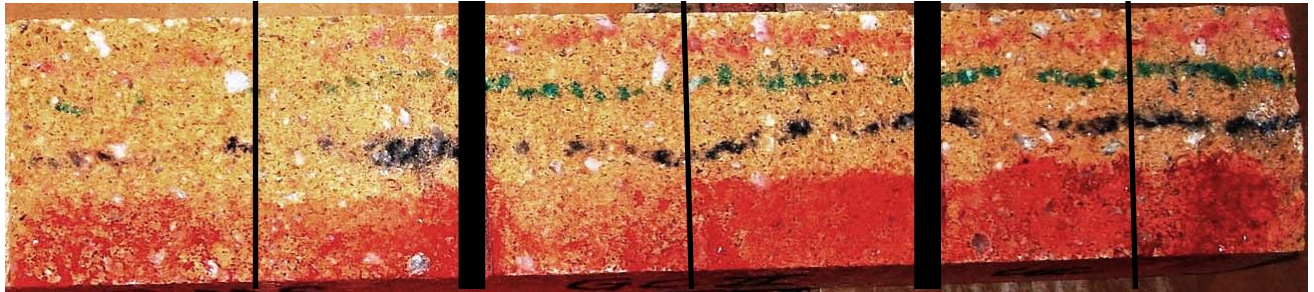


Sure Klean® Weather Seal Blok-Guard® & Graffiti Control

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II

Untreated Control

“Marigold” Split Face CMU; After Graffiti Removal



Sure Klean® Fast Acting Stripper	Defacer Eraser® Graffiti Wipe
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	

Sure Klean® Fast Acting Stripper	Defacer Eraser® Graffiti Wipe
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	

Sure Klean® Fast Acting Stripper	Defacer Eraser® Graffiti Wipe
Untreated Control	

Conclusions – Graffiti Control

Based upon laboratory evaluations, graffiti removal was improved when the submitted samples were treated with Sure Klean® Weather Seal Blok-Guard® & Graffiti Control and/or Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II prior to graffiti application. None of the treatments applied to any of the samples submitted caused any change to the appearance of the CMUs.

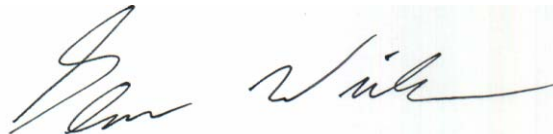
Recommendations – Graffiti Control

Recommendations for graffiti control treatment for each CMU submitted by Southland Brick & Block, Murfreesboro, TN are provided in the chart below. Recommendations are based on the treatment that proved most effective for providing graffiti repellency and the product that was most effective at removing the graffiti on all types submitted.

Sample	Graffiti Repellents	Graffiti Removers
"Cameo" Smooth-Face CMU "Antique White" Split-Face CMU "Bristol" Split-Face CMU "Bristol" Smooth-Face CMU "Silverstone" Smooth-Face CMU	*Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Defacer Eraser® Graffiti Wipe OR Sure Klean® Fast Acting Stripper
"Cameo" Split-Face CMU "Brick Red" Smooth-Face CMU "Mahogany" Split-Face CMU	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	Defacer Eraser® Graffiti Wipe OR Sure Klean® Fast Acting Stripper
All Other Submitted CMUs	*Sure Klean® Weather Seal Blok-Guard® & Graffiti Control OR Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	Defacer Eraser® Graffiti Wipe OR Sure Klean® Fast Acting Stripper

***NOTE:** Sure Klean® Weather Seal Blok-Guard® & Graffiti Control is manufactured and marketed in compliance with USEPA AIM VOC regulations (40 CFR 59.403). This product may not be suitable for sale in states and districts with more restrictive AIM VOC regulations.

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.

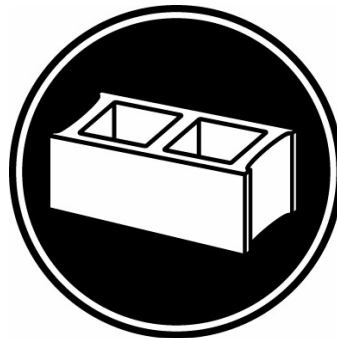


Glenn Winkler
Project Testing Laboratory Technician



PALLET TAG PROGRAM
Laboratory Report

Southland Brick & Block
700 Ordway Ave.
Murfreesboro, TN 37133
CMU



Project No. 0707-05 PTP

Prepared For:
PROSOCO
SINCE 1939

Prepared By:
AMT Laboratories
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