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Submitted Information

For: Steve Dean
cc: Joe Talecki
Brian Koenings
John Bourne

Subject: Trenwyth Industries, Inc.
Morris, IL

Date:

Project: 0608-18 PTP

Samples Submitted: 2 types of Trendstone® and 2 types of Trendstone Plus® ground-face CMU's w/ an in-plant acrylic finish

Sample	Name	Color	Integral Water Repellent	Size
Ground-face CMU w/ Acrylic Finish	"Chocolate – Trendstone Plus®"	Dark Brown	W.R. Grace Dry-Block®	8" x 16" x 4"
Ground-face CMU w/ Acrylic Finish	"Dekalb Tan – Trendstone Plus®"	Tan	W.R. Grace Dry-Block®	8" x 16" x 4"
Ground-face CMU w/ Acrylic Finish	"Goldstone – Trendstone®"	Tan	W.R. Grace Dry-Block®	8" x 16" x 4"
Ground-face CMU w/ Acrylic Finish	"Graystone – Trendstone®"	Gray	W.R. Grace Dry-Block®	8" x 16" x 4"

Submitted by: Steve Dean

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

Two types of Trendstone® and two types of Trendstone Plus® integrally colored ground-face CMU's with an in-plant applied acrylic finish, all with large, small and fine aggregate were submitted for testing to AMT Laboratories by PROSOCO, Inc. to determine the optimal concentration of cleaner for removal of laboratory applied mortar while limiting surface alterations to the acrylic finish.

New Construction Cleaning – Sure Klean® Burnished Custom Masonry Cleaner was evaluated to determine the optimal concentration of cleaner for removal of laboratory applied mortar while limiting surface alterations to the acrylic finish of the submitted CMU's.

To simulate new construction soiling, all concrete masonry units (CMU's) are placed on a bench with finished surface facing upward. Hollow cylinders measuring 50 mm in diameter and 75 mm tall are positioned on top of each CMU and filled with a wet mixture of Type S mortar. The wet, mortar-filled cylinder is allowed to remain in contact with the CMU for 10 minutes before removal.

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

The surface alteration evaluation was visually determined based upon perceived discoloration or erosion/etching of the samples based on the following:

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

Substrate Deterioration is the visual examination of the sample comparing the surface of the untreated control 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 untreated control surface to 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.

Products Evaluated

New Construction Cleaning Products Evaluated

Sample	Product	Dilution
All Submitted CMU's	Sure Klean® Burnished Custom Masonry Cleaner	1:2, 1:3

New Construction Cleaning

These cleaning trials were conducted to determine the optimal cleaning/cure time combination to most efficiently remove Type S mortar from the submitted CMU's while limiting surface alterations to the acrylic finish.

Type S mortar was prepared in compliance with the manufacturer's instructions, applied to the CMU surface 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.

Description of Products Evaluated – New Construction Cleaning

Sure Klean® Burnished Custom Masonry Cleaner – Removes common construction and atmospheric staining from custom masonry and other architectural concrete surfaces. This general-purpose, non-etching, acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Burnished Custom Masonry Cleaner adds depth to colors and brightens white matrices and exposed aggregate.

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.
   Burnished Custom Masonry Cleaner ..... 3-5 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.

***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)

"Chocolate – Trendstone Plus®" Ground-face CMU				
Product	**Dilution**	**3 day**	**7 day**	**14 day**
Sure Klean® Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Sure Klean® Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
"Dekalb Tan – Trendstone Plus®" Ground-face CMU				
Product	**Dilution**	**3 day**	**7 day**	**14 day**
Sure Klean® Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Sure Klean® Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
"Goldstone – Trendstone®" Ground-face CMU				
Product	**Dilution**	**3 day**	**7 day**	**14 day**
Sure Klean® Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Sure Klean® Burnished Custom Masonry Cleaner	1:3	100%	100%	100%
"Graystone – Trendstone®" Ground-face CMU				
Product	**Dilution**	**3 day**	**7 day**	**14 day**
Sure Klean® Burnished Custom Masonry Cleaner	1:2	100%	100%	100%
Sure Klean® Burnished Custom Masonry Cleaner	1:3	100%	100%	100%

Test Results – Limiting Surface Alterations

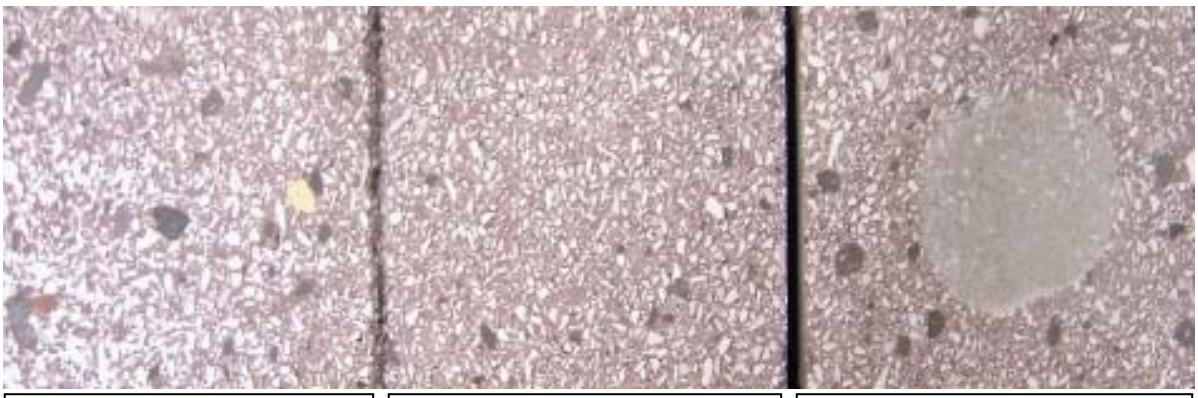
Substrate: Ground-face CMU	**Pigment Color:** "Chocolate – Trendstone Plus®"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Burnished Custom Masonry Cleaner	1:2	0	0	0	0
	1:3	0	0	0	0
Substrate: Ground-face CMU	**Pigment Color:** "Dekalb Tan – Trendstone Plus®"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Burnished Custom Masonry Cleaner	1:2	0	0	0	0
	1:3	0	0	0	0
Substrate: Ground-face CMU	**Pigment Color:** "Goldstone – Trendstone®"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Burnished Custom Masonry Cleaner	1:2	0	0	0	0
	1:3	0	0	0	0
Substrate: Ground-face CMU	**Pigment Color:** "Graystone – Trendstone®"				
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Sure Klean® Burnished Custom Masonry Cleaner	1:2	0	0	0	0
	1:3	0	0	0	0

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

0 – No Change
1 – Slight
2 – Moderate
3 – Heavy
4 – Excessive

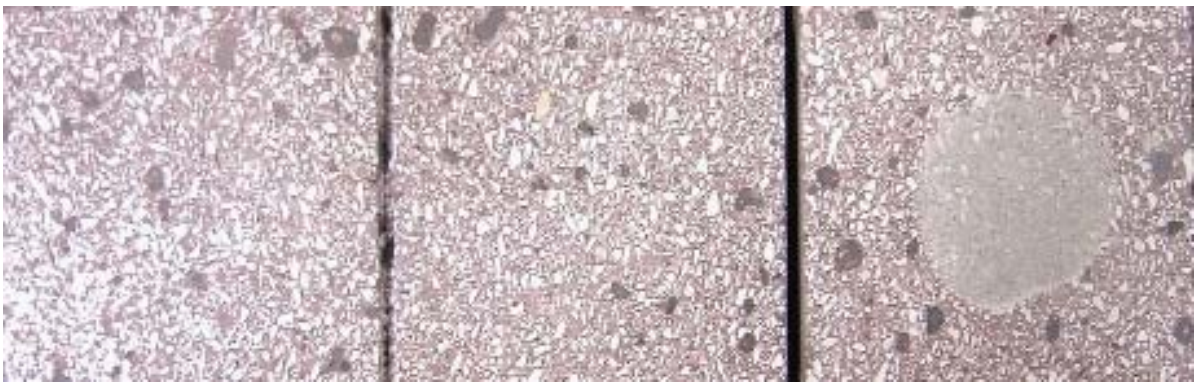
Photographs – New Construction Cleaning

"Chocolate – Trendstone Plus®" Ground-face CMU; 3 Day Cleaning



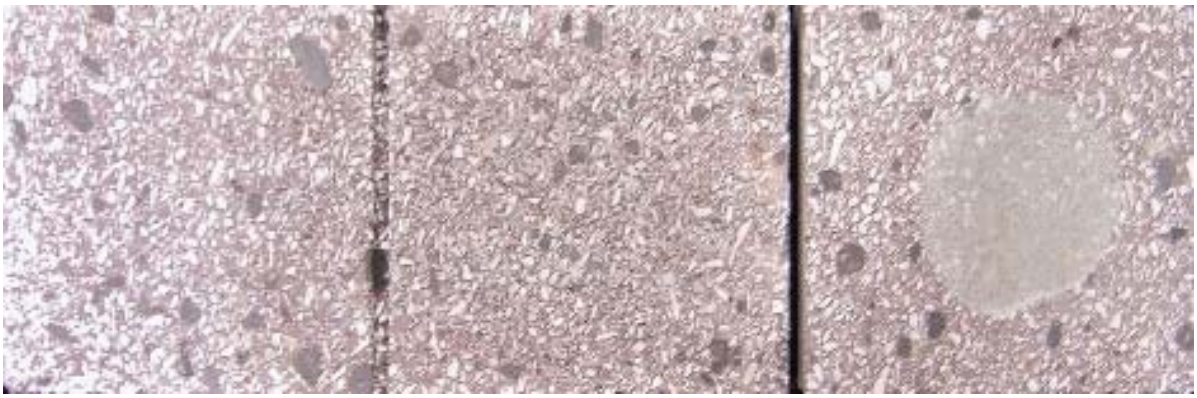
Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

"Chocolate – Trendstone Plus®" Ground-face CMU; 7 Day Cleaning



Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

"Chocolate – Trendstone Plus®" Ground-face CMU; 14 Day Cleaning



Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

Photographs – New Construction Cleaning

"Goldstone – Trendstone®" Ground-face CMU; 3 Day Cleaning

Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

"Goldstone – Trendstone®" Ground-face CMU; 7 Day Cleaning

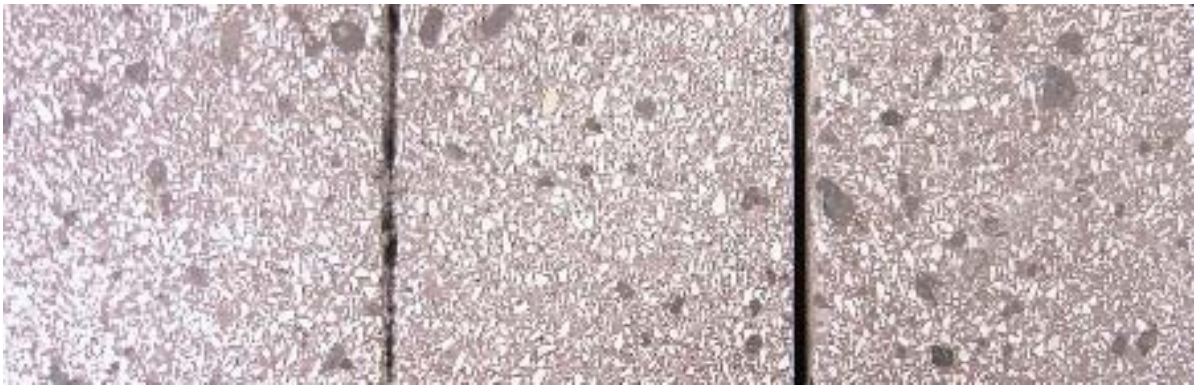
Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

"Goldstone – Trendstone®" Ground-face CMU; 14 Day Cleaning

Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

Photographs – Limiting Surface Alterations

"Chocolate – Trendstone Plus®" Ground-face CMU



Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

"Goldstone – Trendstone®" Ground-face CMU

Sure Klean® Burnished Custom Masonry Cleaner (1:2)	Sure Klean® Burnished Custom Masonry Cleaner (1:3)	Untreated Control

Conclusions – New Construction Cleaning

Based on the test data, all of the submitted samples were efficiently cleaned with both dilutions of Sure Klean® Burnished Custom Masonry Cleaner. Neither dilution of Sure Klean® Burnished Custom Masonry Cleaner altered the acrylic finish of the submitted samples in any way.

Recommendations – New Construction Cleaning

Recommendations for cleaning each type of CMU submitted by Trenwyth Industries, Inc., Morris, IL are provided in the chart below. Recommendations are based on the optimum dilution for complete removal of mortar while limiting surface alterations to the acrylic finish of the CMU's.

Sample	New Construction Cleaning (Type S mortar, 14 day cleaning)
All Submitted CMU's	Sure Klean® Burnished Custom Masonry Cleaner (1:2) OR (1:3)

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.

Christopher A. Moore
Project Testing Laboratory Technician
CAM

PALLET TAG PROGRAM
Laboratory Report

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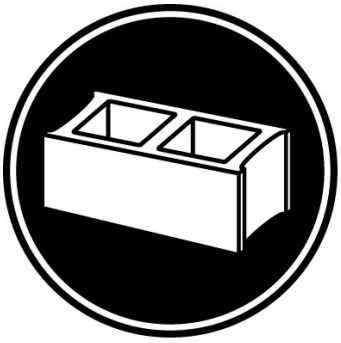
Morris, IL 60450



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Prepared For:
PROSOCO
SINCE 1939

Prepared By:
AMT Laboratories
September 2006