



LABORATORY REPORT

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FOR: Mike Homan, Wayne Builders Supply
cc: Mark Donze, PROSOCO, Inc.
Cathy Hughes

SUBJECT: Wayne Builders Supply
Greenville, OH
Pallet Tag Evaluation

DATE: July 26, 2018
PROJECT: 1806-03 PTP

SAMPLES SUBMITTED:

<u>Sample</u>	<u>Size</u>
(5) samples of "Ironwood" gray split-face CMU	8" x 8" x 2", many samples were broken during shipping
(2) samples of "Rockrose" red split-face CMU	

SUBMITTED BY: Mike Homan
Wayne Builders Supply
5410 St. Rt. 49
Greenville, OH 45331

PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner for the submitted CMUs.
- To determine if Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II provides adequate water repellency to the submitted CMUs.
- To determine the effectiveness of Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II in preventing the penetration of, and simplifying the removal of, graffiti staining on the submitted CMUs.



PRODUCTS EVALUATED:

New Construction Cleaning	Dilution:
Sure Klean® Custom Masonry Cleaner	1:4; 1:6
Sure Klean® Light Duty Concrete Cleaner	1:2; 1:3

Water Repellency / Graffiti Resistance	Dilution:
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	Concentrate

Graffiti Removal	Dilution:
Defacer Eraser® Graffiti Remover	Concentrate
Enviro Klean® SafStrip® 8	Concentrate



TEST METHODS: New Construction Cleaning

Sure Klean® Custom Masonry Cleaner and Sure Klean® Light Duty Concrete Cleaner were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the natural through-body color of the CMU.

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.

Cleaning Procedure:

1. Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Guide instructions.
2. Allow for an appropriate dwell time:
 Custom Masonry Cleaner5 minutes
 Light Duty Concrete Cleaner.....5 minutes
3. Reapply cleaning solution; do not let cleaner dry into masonry.
4. Rinse thoroughly with plenty of fresh water.*
5. Allow the sample to dry for at least 18 hours and visually examine.
6. Break the sample in half and compare the through-body 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: New Construction Cleaning / Color Uniformity

Substrate: Split-face CMU		Color: "Ironwood"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:4	0	0
Custom Masonry Cleaner	1:6	2	2
Light Duty Concrete Cleaner	1:2	3	3
Light Duty Concrete Cleaner	1:3	4	4
Substrate: Split-face CMU		Pigment Color: "Rockrose"	
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal
Custom Masonry Cleaner	1:4	0	0
Custom Masonry Cleaner	1:6	1	1
Light Duty Concrete Cleaner	1:2	3	3
Light Duty Concrete Cleaner	1:3	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			

CONCLUSIONS – New Construction Cleaning

In the cleaning tests conducted, Sure Klean® Custom Masonry Cleaner diluted with both four and six parts water removed a moderate amount of surface pigment, exposing a moderate amount of aggregate. Light Duty Concrete Cleaner diluted with both two and three parts water removed only a slight amount of surface pigment, exposing a slight amount of aggregate.

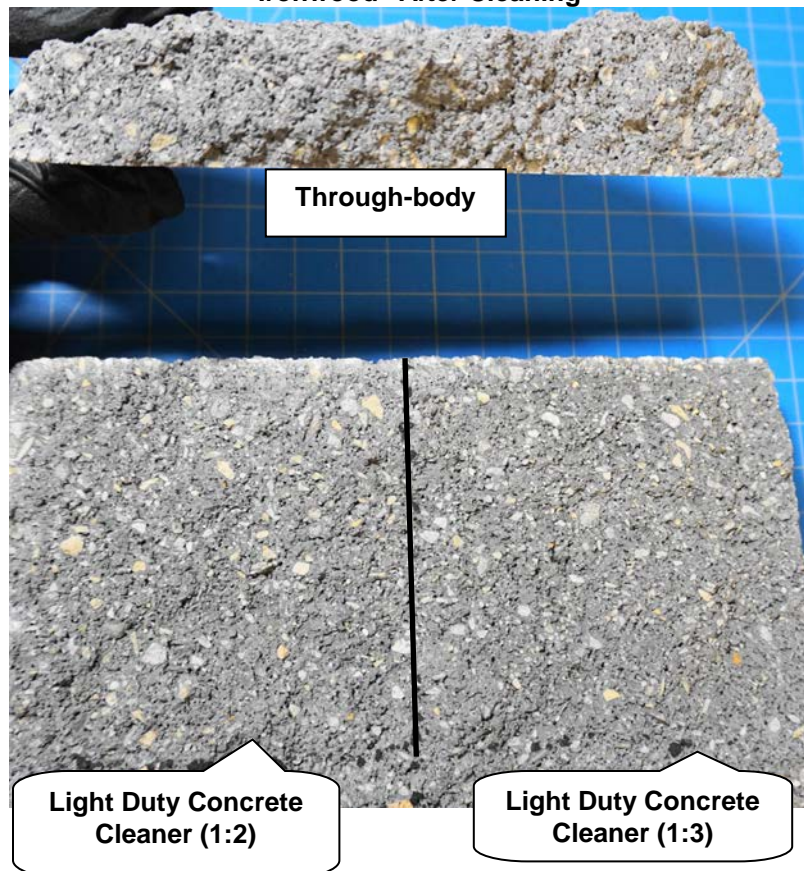
Light Duty Concrete Cleaner provided the best match to the through-body color of the CMU.

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

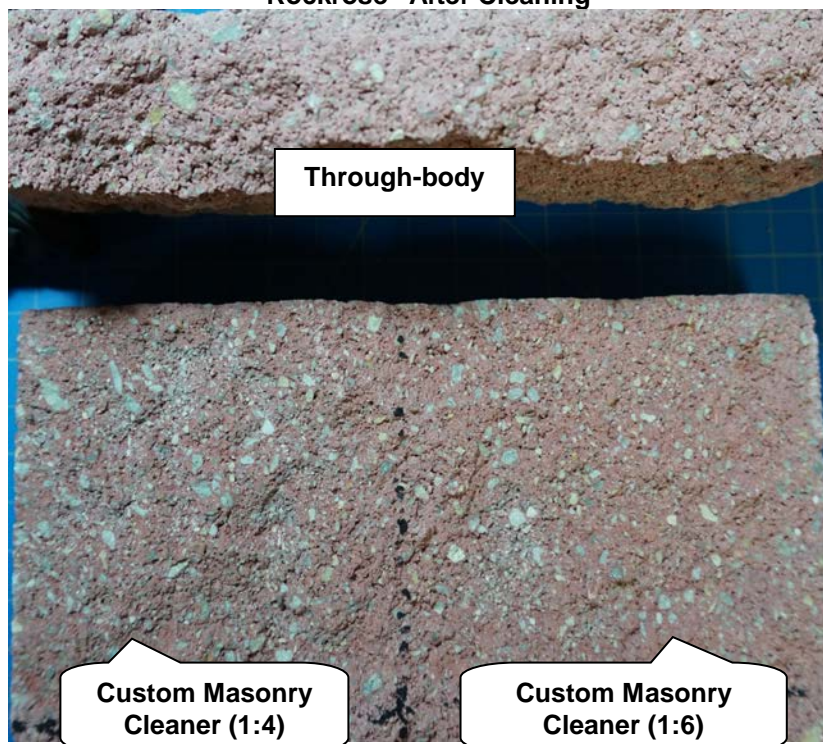
See photographs on following page.

PHOTOGRAPHS: New Construction Cleaning

“Ironwood” After Cleaning



“Rockrose” After Cleaning

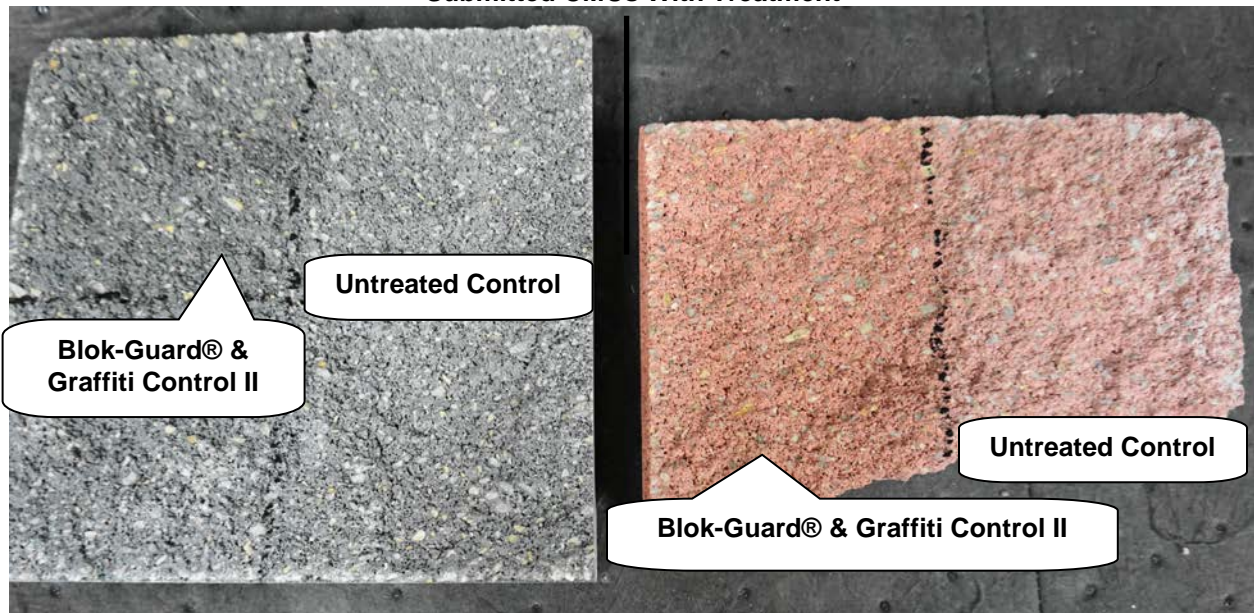


SAMPLE PREPARATION: Water Repellency & Graffiti Resistance Treatment

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II was applied in a brushing application in accordance with the current PROSOCO, Inc. Product Guide instructions. The treatment was allowed to cure for at least 72 hours prior to testing.

PHOTOGRAPH: Water Repellency & Graffiti Resistance Treatment

Submitted CMUs With Treatment



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.

TEST RESULTS: Protective Water Repellents

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

"Ironwood" Split-face CMU	
Untreated Control	<40 mph
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	54 mph
"Rockrose" Split-face CMU	
Untreated Control	<40 mph
Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II	55 mph

CONCLUSIONS: Protective Water Repellents

Based on the laboratory evaluations, Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II provided good water repellent protection to the submitted CMUs.

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II provided a slight color enhancement to each CMU.



TEST METHODS: Graffiti Resistance

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

Spray paint and markers were applied as graffiti agents to the treated surfaces 72 hours after application of 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 Remover and Enviro Klean® SafStrip® 8.

Chemical cleaners were evaluated using the following procedure:

1. Apply the product to a dry surface, soiled with graffiti.
2. Allow appropriate dwell time:
 - Graffiti Remover 5 minutes
 - SafStrip® 8..... 30 minutes
3. Rinse thoroughly until water runs clear. *
4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

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

TEST RESULTS: Graffiti Resistance

“Ironwood” Split-face CMU					
Untreated Control	Red Paint	Black Marker	Blue Marker	Red Marker	% Avg. Removal
Graffiti Remover	70%	50%	50%	50%	55%
SafStrip® 8	75%	60%	75%	60%	68%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Blue Marker	Red Marker	% Avg. Removal
Graffiti Remover	85%	80%	60%	60%	71%
SafStrip® 8	75%	90%	75%	60%	75%
“Rockrose” Split-face CMU					
Untreated Control	Red Paint	Black Marker	Blue Marker	Red Marker	% Avg. Removal
Graffiti Remover	30%	30%	30%	30%	30%
SafStrip® 8	80%	40%	40%	50%	53%
Blok-Guard® & Graffiti Control II	Red Paint	Black Marker	Blue Marker	Red Marker	% Avg. Removal
Graffiti Remover	80%	30%	30%	30%	43%
SafStrip® 8	80%	40%	40%	50%	53%

CONCLUSIONS: Graffiti Resistance

Based upon laboratory evaluations, graffiti removal was improved when the submitted CMUs were treated with Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II.

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II provided a slight color enhancement to each CMU.

RECOMMENDATIONS:

New Construction Cleaning

Based on the laboratory test results, both Sure Klean® Custom Masonry Cleaner diluted with four or six parts water and Sure Klean® Light Duty Concrete Cleaner diluted with two or three parts water can be recommended for new construction cleaning on the “Ironwood” and “Rockrose” split-face CMUs submitted from Wayne Builders Supply in Greenville, OH.

To facilitate easier removal of excess mortar while minimizing any potential surface alterations, clean within 3 days of construction.

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.

Water Repellency

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II can be recommended for water repellency on the submitted CMUs.

Graffiti Resistance/Removal

Sure Klean® Weather Seal Blok-Guard® & Graffiti Control II can be recommended for graffiti resistance on the submitted CMUs. Enviro Klean® SafStrip® 8 and Defacer Eraser® Graffiti Remover can be recommended for graffiti removal.

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

A handwritten signature in black ink that reads 'Courtney A. Murdock'.

Courtney A. Murdock, CDT
Project Testing Director

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.