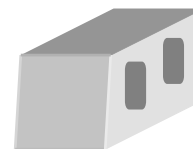




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PROSOCO, Inc.

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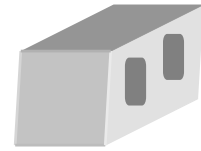
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ATTACHMENTS
Technical Services TECH Note RILEM Test Method No. II.4
Product Data literature for all products evaluated
Material Safety Data Sheets for all products evaluated



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Submitted Information

FOR: Al Kuchnicki
Cc: Doug Barron
Perry Surber
John Bourne

SUBJECT: 4D Inc.
Midland, MI

DATE: June 6, 2001

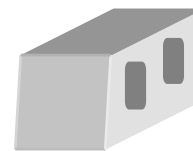
PROJECT: 0104-11 BP

SAMPLES SUBMITTED: 9 colors of split-face and smooth CMUs, 4 colors of concrete bricks, 9 colors of ground-face CMUs with Addiment[®] & without Addiment[®] (All samples are faces only and contain Dry-Block)

<u>Block</u>	<u>Color</u>	<u>Size</u>
Split-face CMU	"#130"	8" x 16" x 1"
Split-face CMU	"#94"	8" x 16" x 1"
Split-face CMU	"#8"	8" x 16" x 1"
Split-face CMU	"#31"	8" x 16" x 1"
Split-face CMU	"#76"	8" x 16" x 1"
Split-face CMU	"#106"	8" x 16" x 1"
Split-face CMU	"#39"	8" x 16" x 1"
Split-face CMU	"#55"	8" x 16" x 1"
Split-face CMU	"#44"	8" x 16" x 1"
Smooth CMU	"#130"	8" x 16" x 1"
Smooth CMU	"#94"	8" x 16" x 1"
Smooth CMU	"#8"	8" x 16" x 1"
Smooth CMU	"#31"	8" x 16" x 1"
Smooth CMU	"#76"	8" x 16" x 1"
Smooth CMU	"#106"	8" x 16" x 1"
Smooth CMU	"#39"	8" x 16" x 1"
Smooth CMU	"#55"	8" x 16" x 1"
Smooth CMU	"#44"	8" x 16" x 1"
Concrete Brick	"Grey Mist"	4" x 7" x 2"
Concrete Brick	"Buckskins"	4" x 7" x 2"
Concrete Brick	"Tittabawassee Blend"	4" x 7" x 2"
Concrete Brick	"Woodstreams"	4" x 7" x 2"



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PROSOCO, Inc.

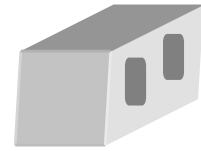
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Ground-face w/ Addiment [®]	"#137"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#29"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#61"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#55"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#99"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#94"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#141"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#121"	8" x 16" x 1"
Ground-face w/ Addiment [®]	"#25"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#137"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#29"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#61"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#55"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#99"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#94"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#141"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#121"	8" x 16" x 1"
Ground-face w/o Addiment [®]	"#25"	8" x 16" x 1"

Submitted by: Perry Surber



BLOCK PROGRAM LABORATORY REPORT



PROSOCO, Inc.

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PURPOSE OF TESTING:

Nine colors of both split-face and smooth CMUs, four colors of concrete bricks, and nine colors of ground-face CMUs with Addiment[®] and without Addiment[®] were submitted for testing using PROSOCO's new construction cleaning and water repellent products.

A. Cleaning Concrete Masonry Units: Sure Klean[®] Custom Masonry Cleaner at various dilutions was evaluated for removal of laboratory applied mortar from the split-face and smooth CMUs and the concrete bricks. Sure Klean[®] Burnished Custom Masonry Cleaner at various dilutions was evaluated for removal of laboratory applied mortar from the ground-face CMUs. Sure Klean[®] Concrete Brick Cleaner* at various dilutions was evaluated for removal of laboratory applied mortar from the concrete bricks.

To simulate new construction soiling, all samples 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 sample and filled with a wet mixture of Ash Grove[®] Type S cementitious mortar. The wet, mortar-filled cylinder is allowed to remain in contact with the sample for 10 minutes before removal.

Soiled samples are allowed to dry before test cleaning.

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

B. Surface Alteration Testing – Sure Klean[®] Custom Masonry Cleaner was tested at various dilutions on the split-face and smooth-face CMUs and the concrete bricks, Sure Klean[®] Burnished Custom Masonry Cleaner was tested at various dilutions on the ground-face CMUs, and Sure Klean[®] Concrete Brick Cleaner was tested at various dilutions on the concrete bricks to determine if a cleaning program implemented to remove excess mortar and related new construction soiling would otherwise alter the appearance of cleaned surfaces. Surface Alteration was evaluated visually based upon perceived discoloration or erosion/etching of the masonry unit.

Aggregate Exposure is the visual examination of the CMU comparing aggregate exposure of the untreated control surface to surfaces cleaned with selected product(s) at given dilutions.

Surface Pigment Alteration/Removal is the visual examination of the CMU comparing the surface pigmentation of the untreated control to surfaces cleaned with selected product(s) at given dilutions.

Matrix Erosion is the visual examination comparing the untreated control surface to surfaces cleaned with selected products at given dilutions looking for any potential erosion/digestion of the cementitious matrix of the CMU.

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 all categories:

0 – no change	3 – heavy
1 – slight	4 – excessive
2 – moderate	

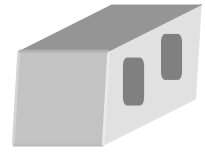
NOTE: When cleaning integrally colored CMU.

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.

*NOTE: In the original report, this product was called Sure Klean[®] Burnished Custom Masonry Cleaner. This report was revised when the product name was changed.



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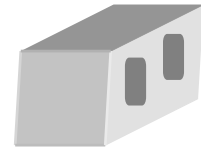
In addition to removing excess mortar and construction related soiling, the goal of any cleaning operation undertaken on integrally colored CMU should include removal of unnaturally high concentrations of surface pigment. By revealing the natural through-body color on the integrally colored unit, the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

C. Protective Water Repellents - Sure Klean[®] Blok-Guard[®] & Graffiti Control was evaluated for its ability to provide water repellency to the split-face and smooth CMUs and the concrete bricks. The ground-face CMUs without Addiment[®] were treated with Sure Klean[®] Weather Seal Siloxane PD and Sure Klean[®] Weather Seal Siloxane WB Concentrate. The ground-face CMUs with Addiment[®] were not evaluated for water repellency due to their in-plant treatment which would interfere with our penetrating water repellents.

D. Graffiti Control – Sure Klean[®] Blok-Guard[®] & Graffiti Control was evaluated for its ability to control graffiti on the split-face and smooth CMUs and the concrete bricks. Defacer Eraser[®] Sacrificial Coating SC-1, applied over Sure Klean[®] Weather Seal Siloxane PD, was evaluated for its ability to control graffiti on the ground-face CMUs without Addiment[®]. The ground-face CMUs with Addiment[®] were not treated due to their in-plant treatment which would interfere with the absorption of the graffiti control products. Defacer Eraser[®] Graffiti Wipe and Sure Klean[®] Fast Acting Stripper were evaluated for their ability to remove graffiti from all of the submitted samples.



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PROSOCO, Inc.

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CLEANING PRODUCTS EVALUATED

Sample	Product	Dilution
All Submitted Split-face and Smooth CMUs	Sure Klean® Custom Masonry Cleaner	1:2, 1:4, 1:6
All Submitted Ground-face CMUs	Sure Klean® Burnished Custom Masonry Cleaner	1:2, 1:3
All Submitted Concrete Bricks	Sure Klean® Concrete Brick Cleaner	1:2, 1:3
	Sure Klean® Custom Masonry Cleaner	1:6

SURFACE ALTERATION PRODUCTS EVALUATED

Sample	Product	Dilution
All Submitted Split-face and Smooth CMUs	Sure Klean® Custom Masonry Cleaner	1:2, 1:4, 1:6
All Submitted Ground-face CMUs	Sure Klean® Burnished Custom Masonry Cleaner	1:2, 1:3
All Submitted Concrete Bricks	Sure Klean® Concrete Brick Cleaner	1:2, 1:3
	Sure Klean® Custom Masonry Cleaner	1:6

WATER REPELLENT PRODUCTS EVALUATED

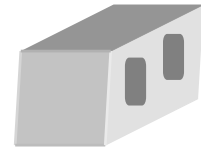
Sample	Product	Dilution
All Submitted Split-face and Smooth CMUs and Concrete Bricks	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Concentrate
All Submitted Ground-face CMUs w/o Addiment®	Sure Klean® Weather Seal Siloxane PD	Concentrate
	Sure Klean® Weather Seal Siloxane WB Concentrate	1:14

GRAFFITI CONTROL PRODUCTS EVALUATED

Sample	Product	Dilution
All Submitted Split-face and Smooth CMUs and Concrete Bricks	Sure Klean® Weather Seal Blok-Guard® & Graffiti Control	Concentrate
All Submitted Ground-face CMUs w/o Addiment®	Defacer Eraser® Sacrificial Coating SC-1 over Sure Klean® Weather Seal Siloxane PD	Concentrate
All Submitted Samples	Defacer Eraser® Graffiti Wipe	Concentrate
	Sure Klean® Fast Acting Stripper	Concentrate



BLOCK PROGRAM LABORATORY REPORT



SECTION A – CLEANING INTEGRALLY COLORED CMUs

DESCRIPTION OF PRODUCTS EVALUATED

These cleaning trials were conducted to determine the optimal cleaning/cure time combination.

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.

Sure Klean® Burnished Custom Masonry Cleaner – A general purpose, non-etching acidic cleaner for custom masonry and colored concrete. Removes rust, mud, oil, atmospheric dirt, and other stains without altering the surface texture. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

Sure Klean® Concrete Brick Cleaner – Removes common construction and atmospheric staining from concrete brick and other architectural concrete surfaces. This general-purpose, non-etching acidic cleaner removes mortar smears, rust, mud, atmospheric dirt and other stains without altering the surface texture. Concrete Brick Cleaner adds depth to colors and brightens white matrices and exposed aggregate. Liquid concentrate for dilution with 1-3 parts water. Apply by brush or low-pressure spray.

TEST METHOD – Cleaning

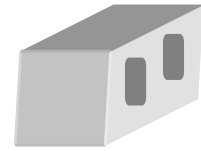
Dilution ratios refer to mixtures of parts concentrated cleaner : parts fresh water. Chemical cleaners were evaluated using the following procedure:

1. Prewet the surface with water.
2. Apply each cleaner at the appropriate dilutions.
3. Allow appropriate exposure time.
 - Sure Klean® Custom Masonry Cleaner.....3 minutes
 - Sure Klean® Burnished Custom Masonry Cleaner 3-5 minutes
 - Sure Klean® Concrete Brick Cleaner 3-5 minutes
4. Reapply the products and moderately agitate with a brush.
5. Pressure rinse thoroughly.*
6. Allow the surface to dry for at least 18 hours and visually examine.

*Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.



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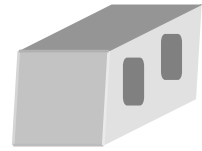
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TEST RESULTS - Cleaning

Sample	Cleaner	Dilution	Cure	Effectiveness
All Submitted Split-face and Smooth CMUs and Concrete Brick	Sure Klean® Custom Masonry Cleaner	1:2	3 day	100%
		1:4		100%
		1:6		100%
		1:2	7 day	100%
		1:4		100%
		1:6		100%
		1:2	14 day	100%
		1:4		100%
		1:6		100%
All Submitted Ground-face CMUs	Sure Klean® Burnished Custom Masonry Cleaner	1:2	3 day	98%
		1:3		98%
		1:2	14 day	98%
		1:3		98%
All Submitted Concrete Bricks	Sure Klean® Concrete Brick Cleaner	1:2	3 day	98%
		1:3		98%
		1:2	14 day	98%
		1:3		98%



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PROSOCO, Inc.

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CONCLUSIONS - Cleaning:

Based on the test data, all of the submitted block and concrete brick samples were efficiently cleaned with each dilution of the selected PROSOCO Inc. cleaning products. Use higher concentrations and surface agitation to maximize aggregate exposure. Use low concentration and surface agitation to minimize aggregate exposure.

All dilutions of Sure Klean[®] Custom Masonry Cleaner tested affected the split-face and smooth-face block in a similar manner, removing heavy concentrations of pigmented matrix from the split-face and smooth CMUs and the concrete bricks, exposing small and large aggregate, and enhancing the natural appearance of the integrally colored concrete masonry unit. All dilutions of Sure Klean[®] Burnished Custom Masonry Cleaner tested affected the ground-face CMUs in a similar manner removing slight amounts of the surface pigment, exposing small and large aggregate and enhancing the natural appearance of the submitted samples. All dilutions of Sure Klean[®] Concrete Brick Cleaner tested affected the concrete bricks in a similar manner removing slight amounts of the surface pigment, exposing small and large aggregate and enhancing the natural appearance of the submitted samples.

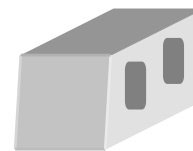
RECOMMENDED PRODUCTS AND DILUTIONS - Cleaning:

Based on these evaluations, all of the dilutions of Sure Klean[®] Custom Masonry Cleaner tested can be recommended for job-site testing on the submitted split-face and smooth CMUs. Sure Klean[®] Custom Masonry Cleaner at a 1:6 dilution or Sure Klean[®] Concrete Brick Cleaner at either dilution can be recommended for job-site testing on the submitted concrete bricks. Sure Klean[®] Concrete Brick Cleaner can be recommended for job-site testing on the ground-face CMUs submitted by 4D Inc., Midland, MI. They all are effective in removing excess mortar and they assist in improving the color and uniformity of these concrete blocks. 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.

NOTE: To remove excess mortar while minimizing aggregate exposure and color enhancement, clean within 7 days of completion using Custom Masonry Cleaner diluted with 6 parts fresh water or Burnished Custom Masonry diluted with 3 parts fresh water.



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SECTION B – Surface Alterations:

DESCRIPTION OF PRODUCTS EVALUATED – Surface Alterations:

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.

Sure Klean® Burnished Custom Masonry Cleaner – A general purpose, non-etching acidic cleaner for custom masonry and colored concrete. Removes rust, mud, oil, atmospheric dirt, and other stains without altering the surface texture. Liquid concentrate for dilution with 2-3 parts water. Apply by brush or low-pressure spray.

Sure Klean® Concrete Brick Cleaner – Removes common construction and atmospheric staining from concrete brick and other architectural concrete surfaces. This general-purpose, non-etching acidic cleaner removes mortar smears, rust, mud, atmospheric dirt and other stains without altering the surface texture. Concrete Brick Cleaner adds depth to colors and brightens white matrices and exposed aggregate. Liquid concentrate for dilution with 1-3 parts water. Apply by brush or low-pressure spray.

TEST METHOD – Surface Alteration Testing:

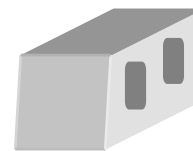
Dilution ratios refer to mixtures of parts concentrated cleaner : parts fresh water. Chemical cleaners were evaluated using the following procedure:

1. Prewet the surface with water.
2. Apply each cleaner at the appropriate dilutions.
3. Allow appropriate exposure time.
 - Sure Klean® Custom Masonry Cleaner.....3 minutes
 - Sure Klean® Burnished Custom Masonry Cleaner 3-5 minutes
 - Sure Klean® Concrete Brick Cleaner 3-5 minutes
4. Reapply the products and moderately agitate with a brush.
5. Pressure rinse thoroughly.*
6. Allow the surface to dry for at least 18 hours and visually examine.

*Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.



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Surface Alteration Results:

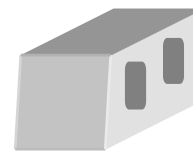
Substrate: Split-face CMU		Pigment Color: "#130"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	4	3	4	0
Sure Klean® Custom Masonry Cleaner	1:4	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:6	2	1	2	0
Substrate: Split-face CMU		Pigment Color: "#94"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	4	3	4	0
Sure Klean® Custom Masonry Cleaner	1:4	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:6	2	1	2	0
Substrate: Split-face CMU		Pigment Color: "#8"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	2	2	0
Sure Klean® Custom Masonry Cleaner	1:4	2	2	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Split-face CMU		Pigment Color: "#31"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:4	2	2	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Split-face CMU		Pigment Color: "#76"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:4	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Split-face CMU		Pigment Color: "#106"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	3	3	3	0
Sure Klean® Custom Masonry Cleaner	1:4	2	2	2	0
Sure Klean® Custom Masonry Cleaner	1:6	2	2	2	0

Scale used for reporting results of all categories

0 – no change	3 – heavy
1 – slight	4 – excessive
2 – moderate	



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Surface Alteration Results Continued:

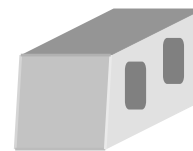
Substrate: Split-face CMU		Pigment Color: "#39"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	4	3	4	0
Sure Klean® Custom Masonry Cleaner	1:4	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:6	2	1	2	0
Substrate: Split-face CMU		Pigment Color: "#55"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:4	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Split-face CMU		Pigment Color: "#44"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:4	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#130"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:4	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#94"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:4	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#8"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:4	1	1	1	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0

Scale used for reporting results of all categories

0 – no change	3 – heavy
1 – slight	4 – excessive
2 – moderate	



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Surface Alteration Results Continued:

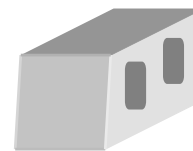
Substrate: Smooth CMU		Pigment Color: "#31"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:4	1	1	1	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#76"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:4	1	1	1	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#106"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	3	2	3	0
Sure Klean® Custom Masonry Cleaner	1:4	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#39"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	2	2	0
Sure Klean® Custom Masonry Cleaner	1:4	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#55"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:4	1	1	1	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Substrate: Smooth CMU		Pigment Color: "#44"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:2	2	1	2	0
Sure Klean® Custom Masonry Cleaner	1:4	1	1	1	0
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0

Scale used for reporting results of all categories

0 – no change	3 – heavy
1 – slight	4 – excessive
2 – moderate	



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PROSOCO, Inc.

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Surface Alteration Results Continued:

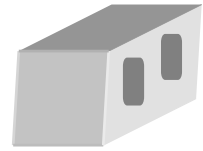
Substrate: Concrete Brick		Pigment Color: "Grey Mist"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Sure Klean® Concrete Brick Cleaner	1:2	1	0	1	0
Sure Klean® Concrete Brick Cleaner	1:3	1	0	1	0
Substrate: Concrete Brick		Pigment Color: "Buckskins"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Sure Klean® Concrete Brick Cleaner	1:2	1	0	1	0
Sure Klean® Concrete Brick Cleaner	1:3	1	0	1	0
Substrate: Concrete Brick		Pigment Color: "Tittabawasse Blend"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:6	1	1	1	0
Sure Klean® Concrete Brick Cleaner	1:2	1	0	1	0
Sure Klean® Concrete Brick Cleaner	1:3	1	0	1	0
Substrate: Concrete Brick		Pigment Color: "Woodstreams"			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Sure Klean® Custom Masonry Cleaner	1:6	2	2	2	0
Sure Klean® Concrete Brick Cleaner	1:2	1	0	1	0
Sure Klean® Concrete Brick Cleaner	1:3	1	0	1	0
Substrate: Ground-face w/ Addiment®		Pigment Color: ALL COLORS			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Cleaner	1:2	0	1	0	0
Burnished Custom Masonry Cleaner	1:3	0	1	0	0
Substrate: Ground-face w/o Addiment®		Pigment Color: ALL COLORS			
Product	Dilution	Aggregate Exposure	Surface Pigment Alteration/Removal	Matrix Erosion	Staining
Burnished Custom Masonry Cleaner	1:2	0	1	0	0
Burnished Custom Masonry Cleaner	1:3	0	1	0	0

Scale used for reporting results of all categories

- | | |
|---------------|---------------|
| 0 – no change | 3 – heavy |
| 1 – slight | 4 – excessive |
| 2 – moderate | |



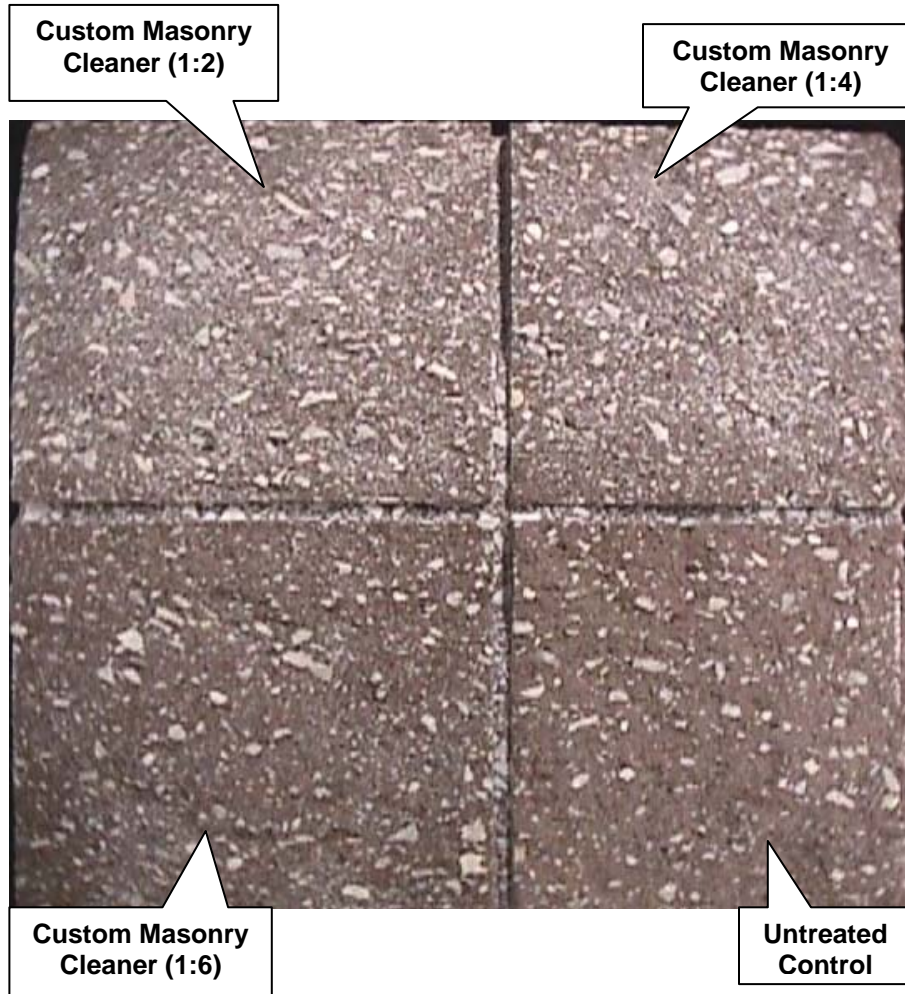
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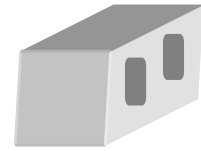
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Photo of split-face CMU "#39" after 14 day cleaning:





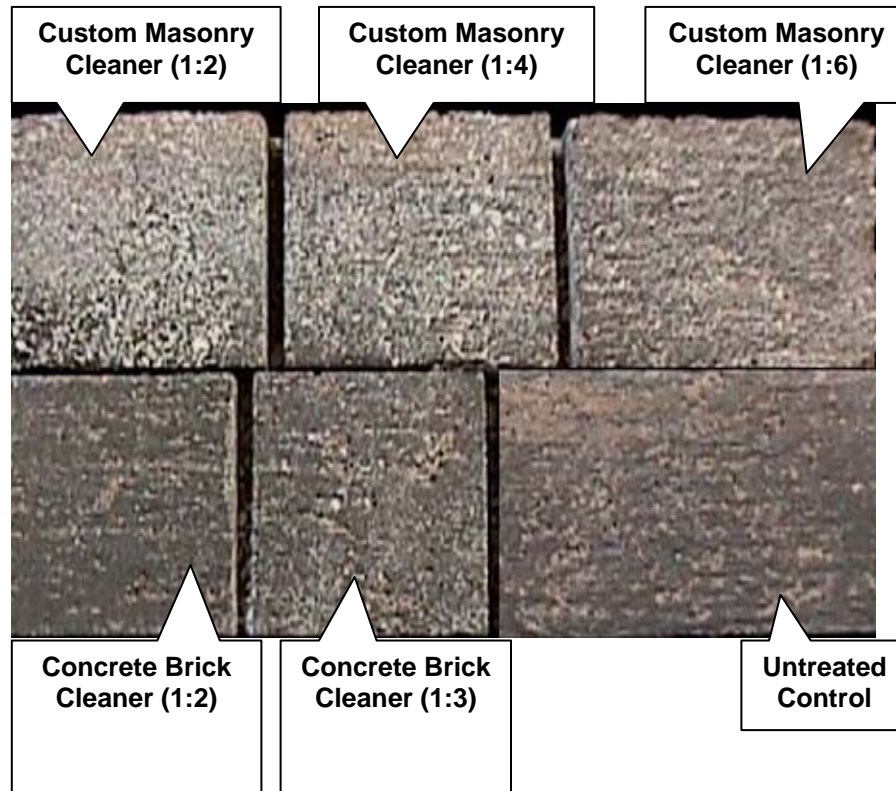
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Photo of concrete brick “Woodstreams” after 14 day cleaning:



CONCLUSIONS – Surface Alterations:

Based on the test data, all dilutions of Sure Klean[®] Custom Masonry Cleaner tested affected the substrate in a similar manner, removing heavy concentrations of pigmented matrix from the split-face and smooth CMUs and the concrete bricks, exposing small and large aggregate, and enhancing the natural appearance. All dilutions of Sure Klean[®] Burnished Custom Masonry Cleaner tested affected the substrate in a similar manner, causing very few if any surface alterations on the ground-face CMUs. All dilutions of Sure Klean[®] Concrete Brick Cleaner tested affected the substrate in a similar manner, causing very few if any surface alterations on the concrete bricks.

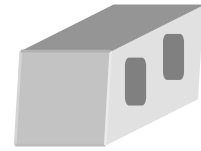
RECOMMENDED PRODUCTS AND DILUTIONS – SURFACE ALTERATIONS:

Based on these evaluations, all of the dilutions of Sure Klean[®] Custom Masonry Cleaner tested can be recommended for job-site testing on the submitted split-face and smooth CMUs. Sure Klean[®] Custom Masonry Cleaner at a 1:6 dilution or Sure Klean[®] Concrete Brick Cleaner at either dilution can be recommended for job-site testing on the submitted concrete bricks. Both dilutions of Sure Klean[®] Burnished Custom Masonry Cleaner tested can be recommended for job-site testing on the ground-face CMUs submitted by 4D Inc., Midland, MI. They all are effective in removing excess mortar and assist in improving the color and uniformity of these concrete blocks. 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.

***NOTE:** To remove excess mortar while minimizing aggregate exposure and color enhancement, clean within 7 days of completion using Custom Masonry Cleaner diluted with 6 parts fresh water or Burnished Custom Masonry diluted with 3 parts fresh water.



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SECTION C - 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

DESCRIPTIONS OF PRODUCTS EVALUATED - Protective Water Repellents:

Sure Klean® Blok-Guard® & Graffiti Control - A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, and concrete block without altering the natural appearance. Blok-Guard® & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering as well as long-lasting protection against many types of graffiti.

Sure Klean® Weather Seal Siloxane PD – A low odor, alkaline stable, water-based blend of silanes and oligomeric alkoxy siloxanes. Weather Seal Siloxane PD is supplied pre-diluted and is designed for use on concrete and clay masonry surfaces. Weather Seal Siloxane PD penetrates more deeply than conventional water or solvent-based water repellents.

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 blocks were scored, allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. The treatment method consisted of a wet-on-wet brush application. All treatments were allowed to cure at least 14 days prior to testing.

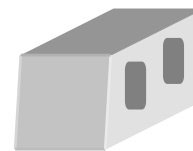
TEST METHODS - Protective Water Repellents:

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.



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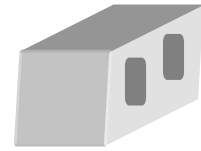
TEST RESULTS - Protective Water Repellents:

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

PRODUCT	RESULTS
Split-face CMU "#130"	
Untreated Control	60 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#94"	
Untreated Control	60 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#8"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#31"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#76"	
Untreated Control	60 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#106"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#39"	
Untreated Control	60 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#55"	
Untreated Control	60 mph
Blok-Guard [®] & Graffiti Control	60 mph
Split-face CMU "#44"	
Untreated Control	<40 mph
Blok-Guard [®] & Graffiti Control	60 mph



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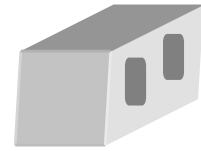
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TEST RESULTS Continued: Protective Water Repellents

Smooth CMU "#130"	
Untreated Control	56 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#94"	
Untreated Control	60 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#8"	
Untreated Control	52 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#31"	
Untreated Control	<40 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#76"	
Untreated Control	60 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#106"	
Untreated Control	45 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#39"	
Untreated Control	60 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#55"	
Untreated Control	60 mph
Blok-Guard® & Graffiti Control	60 mph
Smooth CMU "#44"	
Untreated Control	45 mph
Blok-Guard® & Graffiti Control	60 mph



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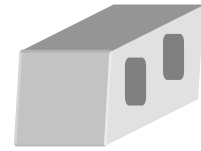
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TEST RESULTS Continued: Protective Water Repellents

Concrete Brick "Grey Mist"	
Untreated Control	60 mph
Blok-Guard® & Graffiti Control	60 mph
Concrete Brick "Buckskins"	
Untreated Control	<40 mph
Blok-Guard® & Graffiti Control	60 mph
Concrete Brick "Tittabawasse Blend"	
Untreated Control	<40 mph
Blok-Guard® & Graffiti Control	60 mph
Concrete Brick "Woodstreams"	
Untreated Control	<40 mph
Blok-Guard® & Graffiti Control	60 mph
Ground-face CMU without Addiment® "#137"	
Untreated Control	<40 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
Ground-face CMU without Addiment® "#29"	
Untreated Control	60 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
Ground-face CMU without Addiment® "#61"	
Untreated Control	58 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
Ground-face CMU without Addiment® "#55"	
Untreated Control	60 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph



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TEST RESULTS Continued: Protective Water Repellents

Ground-face CMU without Addiment® "#99"	
Untreated Control	<40 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
Ground-face CMU without Addiment® "#94"	
Untreated Control	60 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
Ground-face CMU without Addiment® "#141"	
Untreated Control	50 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
Ground-face CMU without Addiment® "#121"	
Untreated Control	<40 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
Ground-face CMU without Addiment® "#25"	
Untreated Control	<40 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph

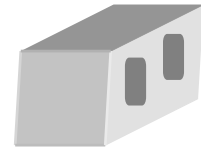


Photo of split-face CMU "#130" after treatment:



CONCLUSIONS - Protective Water Repellents:

Based upon laboratory evaluations, all colors of the split-face and smooth CMUs and concrete bricks exhibited above average water repellency when treated with Sure Klean® Blok-Guard® & Graffiti Control. All colors of the ground-face CMUs without Addiment® exhibited above average water repellency when treated with Sure Klean® Weather Seal Siloxane PD or Sure Klean® Weather Seal Siloxane WB Concentrate diluted with nine parts fresh water. Sure Klean® Blok-Guard® & Graffiti Control also enhanced the natural color of the submitted samples, while Sure Klean® Weather Seal Siloxane WB (1:9) did not change the appearance of the CMU.

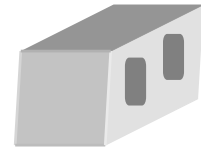
RECOMMENDATIONS - Protective Water Repellents:

Based on evaluations, Sure Klean® Blok-Guard® & Graffiti Control can be recommended for job-site testing on all colors of the split-face and smooth CMUs and concrete bricks. Sure Klean® Weather Seal Siloxane PD and Sure Klean® Weather Seal Siloxane WB Concentrate diluted with nine parts fresh water can be recommended for job-site testing on all colors of the ground-face CMUs without Addiment® submitted by 4D Inc., Midland, MI.

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.



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SECTION D – GRAFFITI CONTROL:

DESCRIPTION OF PRODUCTS EVALUATED

These trials were conducted to determine the optimal graffiti control treatment.

Graffiti Control Treatments:

Sure Klean® Blok-Guard® & Graffiti Control - A clear, solvent-based silicone elastomer formulated to weatherproof custom masonry units, cast stone, and concrete block without altering the natural appearance. Blok-Guard® & Graffiti Control penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering as well as long-lasting protection against many types of graffiti.

Defacer Eraser® Sacrificial Coating SC-1 – A clear, water-based sacrificial coating for control of graffiti on most building surfaces. SC-1 acts as a graffiti barrier by preventing spray paints, crayons and ink from penetrating and staining the underlying surface. Graffiti is removed from protected surfaces by high-pressure hot water. The coating must then be reapplied to restore the graffiti barrier.

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, wood and metal surfaces.

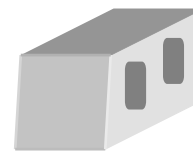
Sure Klean® Fast Acting Stripper – A thixotropic stripping compound designed for removing coatings and epoxies from masonry, wood and metal surfaces. It also removes oil, grease and waxes from concrete decks, tile and terrazzo floors. Fast Acting Stripper dissolves most spray paints, marking pens, lacquers and other graffiti.

Graffiti Agents:

Krylon® Interior/Exterior Paint (2101 Cherry Red)
Krylon® Interior/Exterior Paint (1910 True Blue)
Krylon® Interior/Exterior Paint (1601 Glossy Black)
Sanford® King Size™ Permanent Marker (Red)
Sanford® King Size™ Permanent Marker (Green)
Sanford® King Size™ Permanent Marker (Black)



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SAMPLE PREPARATION – Graffiti Control:

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

Sections of the split-face and smooth CMUs and the concrete bricks were treated with one coat of Sure Klean[®] Blok-Guard[®] & Graffiti Control in accordance with PROSOCO, Inc.'s Product Guide application recommendations, then allowed to cure for one week. Also, sections of the ground-face CMUs without Addiment[®] were treated with Defacer Eraser[®] Sacrificial Coating SC-1, applied over one coat of Sure Klean[®] Weather Seal Siloxane PD, and allowed to cure sufficiently. At the end of the one-week 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 7 days following application of Sure Klean[®] Blok-Guard[®] and Graffiti Control and Defacer Eraser[®] Sacrificial Coating SC-1. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Defacer Eraser[®] Graffiti Wipe, Sure Klean[®] Fast Acting Stripper, and hot water on substrates treated with Defacer Eraser[®] Sacrificial Coating SC-1.

TEST METHOD – Cleaning

Chemical cleaners were evaluated using the following procedure:

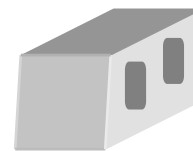
1. Apply the product to a dry surface, soiled with graffiti.
2. Allow appropriate dwell time:

Graffiti Wipe	5 minutes
Fast Acting Stripper	20 minutes
3. Pressure rinse thoroughly until water runs clear.*
4. Allow the surface to dry thoroughly and visually examine to determine effectiveness.

* Pressure rinsing was conducted at approximately 1300 psi with a warm water flow rate of 1.9 gallons per minute.



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TEST RESULTS: Graffiti Removal

Note: Results are reported as averages for each substrate.

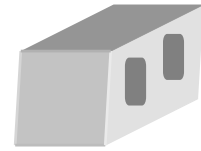
Split-face CMUs							
Untreated Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Graffiti Wipe	91%	90%	91%	80%	80%	80%	85%
Fast Acting Stripper	94%	94%	96%	93%	93%	94%	94%
Blok-Guard® & Graffiti Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Graffiti Wipe	99%	99%	99%	98%	98%	99%	99%
Fast Acting Stripper	97%	97%	98%	98%	98%	99%	98%

Smooth CMUs							
Untreated Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Graffiti Wipe	96%	96%	98%	81%	81%	81%	89%
Fast Acting Stripper	94%	94%	98%	95%	95%	95%	95%
Blok-Guard® & Graffiti Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Graffiti Wipe	99%	98%	99%	95%	95%	95%	97%
Fast Acting Stripper	98%	97%	99%	98%	98%	98%	98%

Concrete Bricks							
Untreated Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Graffiti Wipe	97%	97%	99%	80%	80%	80%	89%
Fast Acting Stripper	95%	95%	99%	98%	95%	98%	97%
Blok-Guard® & Graffiti Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Graffiti Wipe	98%	97%	99%	80%	80%	99%	92%
Fast Acting Stripper	97%	97%	99%	99%	98%	99%	98%



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TEST RESULTS Continued: Graffiti Control

Ground-face CMUs with Addiment®							
Untreated Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Graffiti Wipe	98%	98%	98%	95%	95%	95%	97%
Fast Acting Stripper	95%	95%	95%	97%	97%	97%	96%

Ground-face CMUs without Addiment®							
Untreated Control	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Hot Water	0%	0%	0%	0%	0%	0%	0%
Graffiti Wipe	98%	98%	99%	95%	95%	98%	97%
Fast Acting Stripper	95%	95%	99%	97%	97%	98%	97%
SC-1	Red Paint	Blue Paint	Black Paint	Red Marker	Green Marker	Black Marker	Avg. Removal
Hot Water	50%	50%	50%	10%	10%	10%	30%
Graffiti Wipe	99%	99%	99%	97%	97%	99%	98%
Fast Acting Stripper	98%	98%	99%	98%	98%	99%	98%

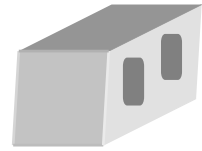
Photo of split-face CMU “#55” after cleaning:



Untreated + Graffiti Wipe	Untreated + Fast Acting Stripper	Untreated Control	Blok-Guard® & Graffiti Control + Fast Acting Stripper	Blok-Guard® & Graffiti Control + Graffiti Wipe
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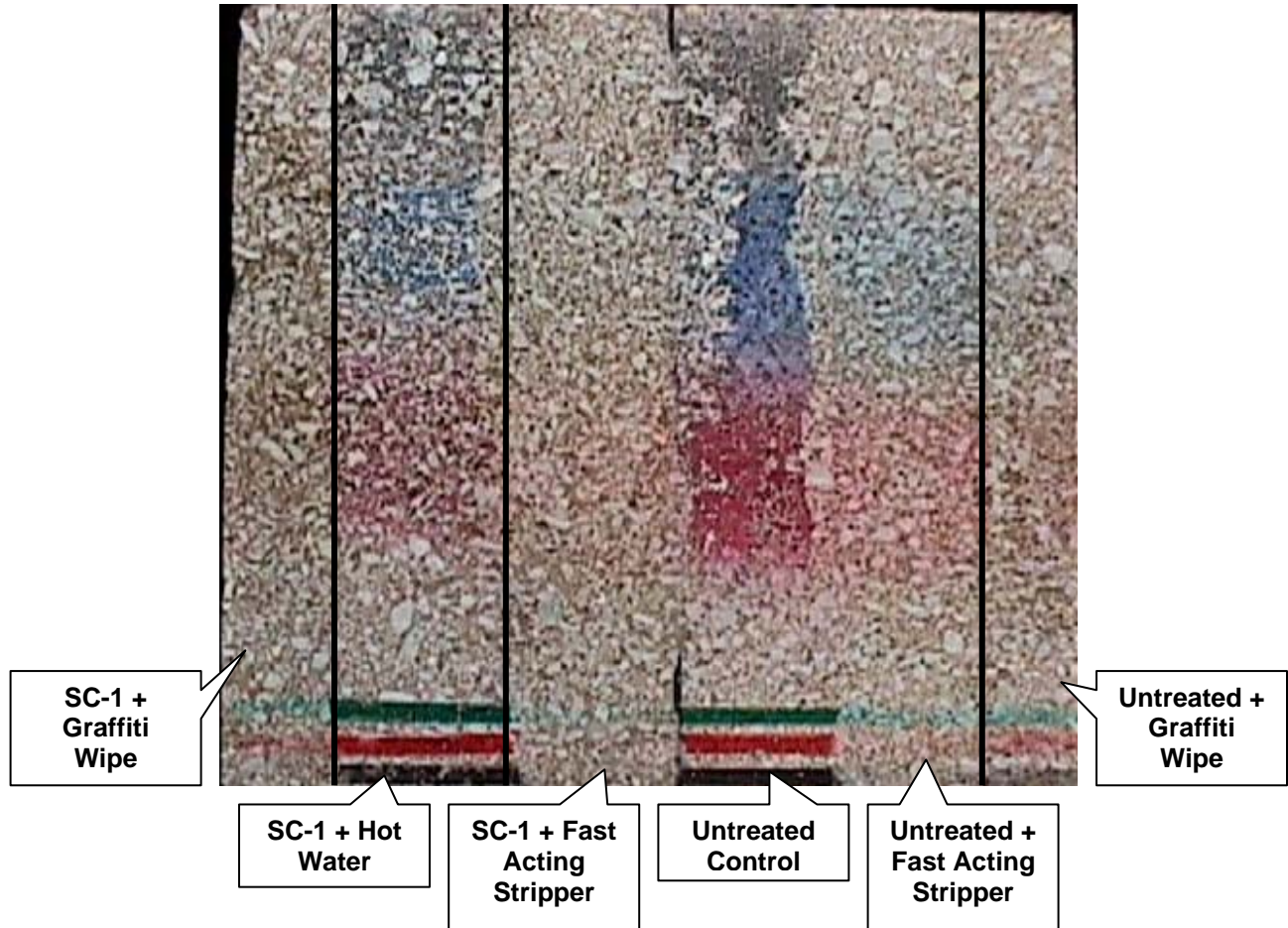
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Photo of ground-face CMU without Addiment[®] “#55” after cleaning:



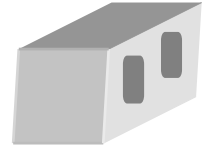
CONCLUSIONS – Graffiti Control:

Based upon laboratory evaluations, Defacer Eraser[®] Graffiti Wipe and Sure Klean[®] Fast Acting Stripper both effectively removed graffiti from all submitted samples. Removal was improved when the surfaces were treated with either Sure Klean[®] Blok-Guard[®] & Graffiti Control or Defacer Eraser[®] Sacrificial Coating SC-1, applied over Sure Klean[®] Weather Seal Siloxane PD.

Sure Klean[®] Blok-Guard[®] & Graffiti Control also enhanced the natural appearance of the substrate, while Defacer Eraser[®] Sacrificial Coating SC-1, applied over Sure Klean[®] Weather Seal Siloxane PD, did not change the appearance in any way.



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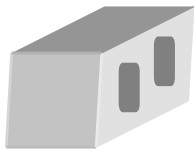
RECOMMENDATIONS – Graffiti Control:

Based on evaluations, Sure Klean® Blok-Guard® & Graffiti Control is recommended for graffiti protection on all split-face and smooth CMUs. Defacer Eraser® Sacrificial Coating SC-1, applied over Sure Klean® Weather Seal Siloxane PD, can be recommended for graffiti protection on all ground-face CMUs without Addiment®.

Defacer Eraser® Graffiti Wipe and Sure Klean® Fast Acting Stripper can be recommended for removal of graffiti in conjunction with the recommended graffiti protection treatments on all submitted samples from 4D Inc., Midland, MI.

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

Jason L. Anderson
Materials Testing Technician
JLA



Laboratory Report

Block Program Evaluation

**4D Inc.
Midland, MI**

Project No. 0104-11 BP

Prepared For:

**Al Kuchnicki
4D Inc.
426 River St.
Midland, MI 48640**

Prepared By:



***PROSOCO, Inc.
June 2001***



FOR: Al Kuchnicki
cc: Doug Barron
 Perry Surber
 John Bourne

SUBJECT: 4D Inc.
 Midland, MI
 Cleaning and Water Repellency Evaluation

DATE: June 28, 2001
PROJECT: 0104-11 BP
 Addendum to Block Program

SAMPLES SUBMITTED:

Sample	Color:	Size:
Ground-face CMU with Addiment®	"#137"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#29"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#61"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#55"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#99"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#94"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#141"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#121"	8" x 16" x 1"
Ground-face CMU with Addiment®	"#25"	8" x 16" x 1"

SUBMITTED BY: Perry Surber

PURPOSE OF TEST:

To determine the effectiveness of Sure Klean® Weather Seal treatments applied to vertical installations of the submitted ground-face CMUs after removing the Addiment® with Sure Klean® Burnished Custom Masonry Cleaner.

SAMPLE PREPARATION:

Dilution ratios refer to mixtures of parts concentrate : parts fresh water.

Products Evaluated:

Sure Klean® Weather Seal Siloxane PD
 Sure Klean® Weather Seal Siloxane WB

Dilution:

Concentrate
 1:14

SAMPLE PREPARATION:

The submitted blocks were scored and cleaned with Sure Klean® Burnished Custom Masonry Cleaner diluted one part concentrate to three parts fresh water to remove the Addiment®. They were then allowed to dry, and to reabsorb atmospheric humidity for 24 hours prior to treatment. The weather seal treatment consisted of a wet-on-wet brush application. All treatments were allowed to cure at least 14 days prior to testing.



TEST METHODS:

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:

Water Absorption Tube Test: RILEM II.4, 2.5 Milliliters, 20 Minutes

RESULTS	
"#137"	
Untreated Control	<40 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
"#29"	
Untreated Control	60 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
"#61"	
Untreated Control	50 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
"#55"	
Untreated Control	60 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
"#99"	
Untreated Control	58 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
"#94"	
Untreated Control	50 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph



"#141"	
Untreated Control	60 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
"#121"	
Untreated Control	<40 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph
"#25"	
Untreated Control	<40 mph
Siloxane PD	60 mph
Siloxane WB (1:14)	60 mph

CONCLUSIONS:

Based upon laboratory evaluations, all colors of the ground-face CMUs with Addiment[®] exhibited above average water repellency when treated with Sure Klean[®] Weather Seal Siloxane PD and Sure Klean[®] Weather Seal Siloxane WB diluted with fourteen parts fresh water after cleaning with Sure Klean[®] Burnished Custom Masonry Cleaner (1:3).

RECOMMENDATIONS:

Based on the above test results, Sure Klean[®] Burnished Custom Masonry Cleaner (1:3) is recommended for new construction cleaning and for the removal of Addiment[®] prior to water repellent treatments. Sure Klean[®] Weather Seal Siloxane PD and Sure Klean[®] Weather Seal Siloxane WB Concentrate diluted with 14 parts fresh water is recommended for job-site testing on all colors of the ground-face CMUs with Addiment[®] submitted by 4D Inc., Midland, MI. To a clean and dry surface, apply in a wet-on-wet saturating application. See product literature for additional application and product information. Coverage rates and application procedures should be confirmed by field test applications.

Jason L. Anderson
Materials Testing Technician

JLA/

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF NINETY (90) 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 NINETY (90) 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.