



*Pallet Tag Program
Laboratory Report*

Silverdale Quality Stone
Arkansas City, KS



Project No. 2302-03 PTP

Prepared For:



PROSOCO

Prepared By:

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March 2023



Laboratory Report

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FOR: Mike Dickey, Dickey Sales, LLC
cc: Clay Witt, PROSOCO, Inc.
Jake Boyer, PROSOCO, Inc.
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SUBJECT: Silverdale Quality Stone
Arkansas City, KS
Pallet Tag Evaluation

DATE: March 13, 2023
PROJECT: 2302-03 PTP

SAMPLES SUBMITTED: One type of natural stone

Type	Name	Finish	Color	Size
Limestone	"Silverdale"	Smooth	Buff	24" x 11" x 1 ½"

SUBMITTED BY: Mike Dickey
Dickey Sales, LLC

PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted samples.
- To determine the most appropriate PROSOCO, Inc. water repellent(s) for the submitted samples.
- To determine the effectiveness of Sure Klean® Weather Seal Blok-Guard & Graffiti Control 15 in preventing the penetration of, and simplifying the removal of, graffiti staining on the submitted samples.

PRODUCTS EVALUATED:

New Construction Cleaning	Dilution:
Sure Klean® Vana Trol®	1:6; 1:8
Enviro Klean® Safety Klean	1:2, 1:3

Water Repellency	Dilution:
Sure Klean® Weather Seal Blok-Guard & Graffiti Control 15	N/A*
Sure Klean® Weather Seal Natural Stone Treatment WB followed by Sure Klean® Weather Seal Blok-Guard & Graffiti Control WB 15	N/A*
Sure Klean® Weather Seal Natural Stone Treatment	N/A*
Sure Klean® Weather Seal Natural Stone Treatment WB	N/A*

Graffiti Resistance	Dilution:
Sure Klean® Weather Seal Blok-Guard & Graffiti Control 15	N/A*
Sure Klean® Weather Seal Natural Stone Treatment WB followed by Sure Klean® Weather Seal Blok-Guard & Graffiti Control WB 15	N/A*
Sure Klean® Weather Seal Sacrificial Coating SC-1	N/A*

***NOTE: Per the product data sheet instructions, only use the product in concentrate. Do not dilute.**

TEST METHODS: New Construction Cleaning

Sure Klean® Vana Trol® and Enviro Klean® Safety Klean were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the uncleaned surface of the submitted natural stone.

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

Substrate Deterioration is the visual examination of the sample comparing the uncleaned surface to surfaces cleaned with selected product(s) at given dilutions looking for any potential erosion/digestion of the sample.

Color Change is the visual examination comparing the color of the uncleaned surface to the color of surfaces cleaned with selected products at given dilutions.

Staining is the visual examination for changes that are the result of a chemical reaction that leaves a staining precipitate.

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

- 0 – **No change** compared to uncleaned surface
- 1 – **Slight change** compared to uncleaned surface
- 2 – **Moderate change** compared to uncleaned surface
- 3 – **Significant change** compared to uncleaned surface

Cleaning Procedure:

1. Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Data Sheet.
2. Allow for an appropriate dwell time and periodically agitate:
Vana Trol®.....5 minutes
Safety Klean.....5 minutes
3. Reapply cleaning solution; do not let cleaner dry into sample.
4. Rinse thoroughly with plenty of fresh water.*
5. Allow the sample to dry for at least 18 hours and visually examine.
6. Compare the uncleaned surfaces to the cleaned surfaces for the best match.

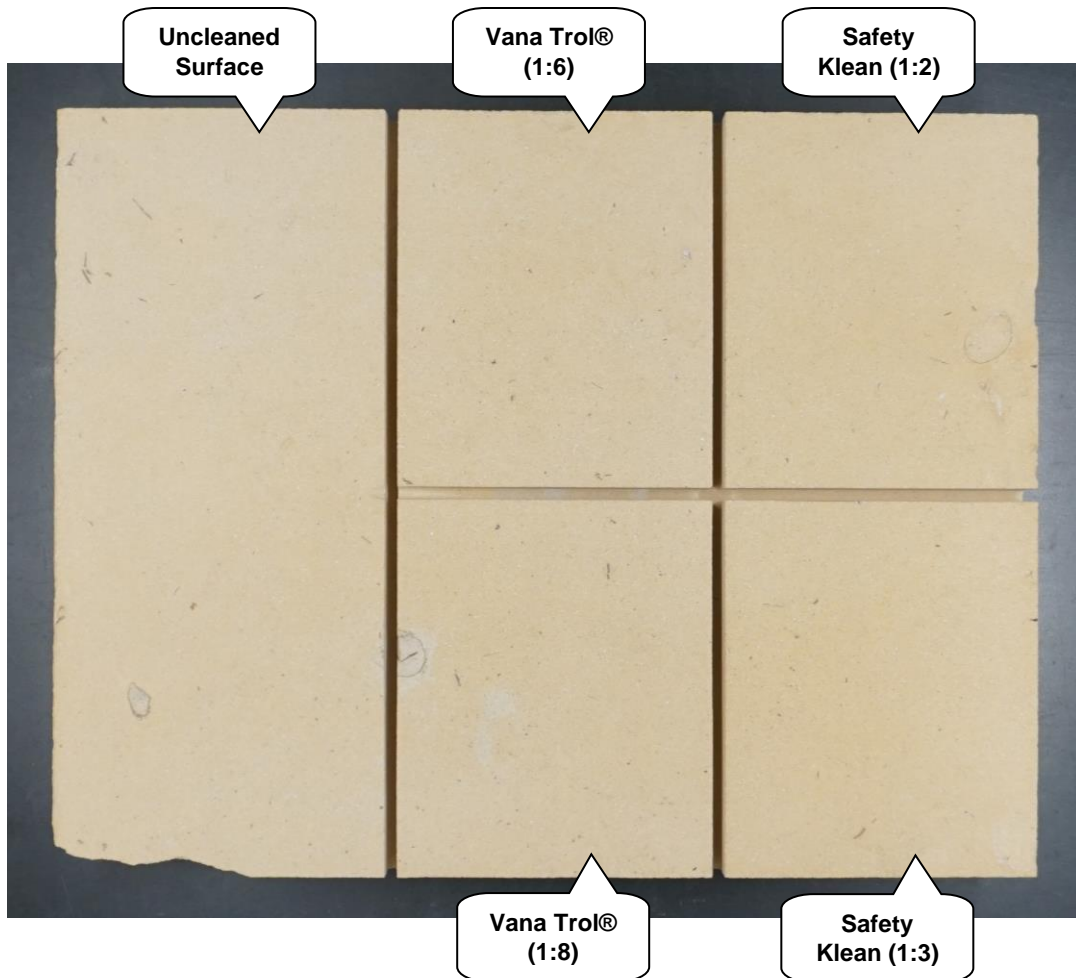
***Rinsing Equipment** – Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 40 degree fan spray tip was used for rinsing.

TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning

Name: "Silverdale" Smooth Limestone					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0
Safety Klean	1:2	1*	0	1*	0
Safety Klean	1:3	1*	0	1*	0

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

"Silverdale" Smooth Limestone After Cleaning



CONCLUSIONS: New Construction Cleaning

In the cleaning tests conducted, Sure Klean® Vana Trol® did not cause any change to the appearance of the submitted “Silverdale” Smooth Limestone. Enviro Klean® Safety Klean caused a very slight change to the appearance of the submitted limestone.

When choosing the most appropriate product for the desired result:

- For new masonry surfaces that are subject to vanadium, manganese, and other metallic stains – Test Sure Klean® Vana Trol®
- For an effective, safe alternative to acidic cleaning compounds – Test Enviro Klean® Safety Klean

It is recommended that the selected cleaners always be used in the lowest possible concentration. Apply all products in accordance with the manufacturer’s recommendations 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.

RECOMMENDATIONS: New Construction Cleaning

Recommendations for cleaning the limestone submitted by Silverdale Quality Stone, Arkansas City, KS are provided in the chart below. Recommendations are based on the cleaner and dilution that provided the best match to the uncleaned surface.

Sample	New Construction Cleaning
“Silverdale” Smooth Limestone	¹ Sure Klean® Vana Trol® (1:6) or (1:8) OR ² Enviro Klean® Safety Klean (1:2) or (1:3)

NOTE: “1” indicates the most effective product and “2” indicates the second most effective product.

The most appropriate cleaner and dilution should be determined on the specific job-site, and will be dependent primarily on the nature and severity of soiling present at that location.

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

SAMPLE PREPARATION: Treatment Application

Prior to treatment application, the submitted limestone samples were cleaned with Sure Klean® Vana Trol® diluted with eight parts water in accordance with the current PROSOCO, Inc. Product Data Sheet instructions. After the samples had dried for at least 24 hours, Sure Klean® Weather Seal Natural Stone Treatment, Sure Klean® Weather Seal Natural Stone Treatment WB, Sure Klean® Weather Seal Blok-Guard & Graffiti Control 15, and Sure Klean® Weather Seal Natural Stone Treatment WB followed by Sure Klean® Weather Seal Blok-Guard & Graffiti Control WB 15 (24 hours later) were applied in accordance with the current PROSOCO, Inc. Product Data Sheet instructions for porous surfaces and allowed to cure for at least 72 hours prior to testing.

TEST METHODS: Protective Water Repellents

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

The water absorption tube test simulating wind driven rain conditions was performed on the submitted samples. Tests were run with 5.0-milliliter head pressures. Filled to 5.0 milliliters, a water absorption tube produces a 98 mph dynamic wind pressure. See RILEM II.4 Tech Note for additional information.

The ranking system used to evaluate the effectiveness of the products applied to each submitted sample is as follows:

AA = “Above Average” correlates to less than or equal to 20% of the maximum untreated absorption.

A = “Average” correlates to less than or equal to 50% of the maximum untreated absorption.

BA = “Below Average” correlates to greater than 50% of the maximum untreated absorption.

EXAMPLE: If RILEM tubes applied to an untreated sample result in loss of 5.0 ml of water or more, then:

A rating of **AA** *Above Average* water repellent performance would be reported for treatments which result in a loss of no more than:

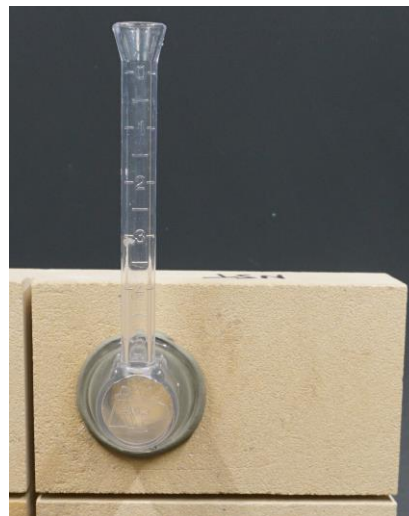
$$5.0 \text{ mL} \times 20\% = \mathbf{1.0 \text{ mL}}$$

A rating of **A** *Average* water repellent performance would be reported for treatments which result in a loss of no more than:

$$5.0 \text{ mL} \times 50\% = \mathbf{2.5 \text{ mL}}$$

A rating of **BA** *Below Average* water repellent performance would be reported for treatments which result in a loss of more than:

$$5.0 \text{ mL} \times 50\% = \mathbf{2.5 \text{ mL}}$$



TEST RESULTS AND PHOTOGRAPHS: Protective Water Repellents

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

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

“Silverdale” Smooth Limestone	Results in mL loss	Ranking
Untreated Control	-4.1	--
Sure Klean® Weather Seal Blok-Guard & Graffiti Control 15	-0.0	AA
Sure Klean® Weather Seal Natural Stone Treatment WB followed by Sure Klean® Weather Seal Blok-Guard & Graffiti Control WB 15	-0.0	AA
Sure Klean® Weather Seal Natural Stone Treatment	-0.0	AA
Sure Klean® Weather Seal Natural Stone Treatment WB	-0.0	AA

“Silverdale” Smooth Limestone After Treatment Application



CONCLUSIONS: Protective Water Repellents

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

Application of Sure Klean® Weather Seal Blok-Guard & Graffiti Control 15 provided moderate color enhancement to the submitted sample.

Application of Sure Klean® Weather Seal Natural Stone Treatment provided very slight color enhancement to the submitted sample.

Application of Sure Klean® Weather Seal Natural Stone Treatment WB resulted in no change to the appearance of the submitted sample.

Application of Sure Klean® Weather Seal Natural Stone Treatment WB followed by Sure Klean® Weather Seal Blok-Guard & Graffiti Control WB 15 provided very slight color enhancement to the submitted sample.

None of the treatments provided any sheen enhancement to the submitted sample.

RECOMMENDATIONS: Protective Water Repellents

Recommendations for water repellency for the limestone submitted by Silverdale Quality Stone, Arkansas City, KS are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective.

Sample	Water Repellency
"Silverdale" Smooth Limestone	Sure Klean® Weather Seal Blok-Guard & Graffiti Control 15 OR Sure Klean® Weather Seal Natural Stone Treatment WB followed by Sure Klean® Weather Seal Blok-Guard & Graffiti Control WB 15 OR Sure Klean® Weather Seal Natural Stone Treatment OR Sure Klean® Weather Seal Natural Stone Treatment WB

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.

Please refer to the Product Data Sheet or visit www.prosoco.com/voccompliance to confirm VOC compliance with individual district or state regulations.

TEST METHODS: Graffiti Resistance

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

Graffiti comes in many forms, many of which are low quality, readily available spray paints and markers. While those forms of graffiti are most common and may be easier to remove, the testing below was conducted with the graffiti types we have found to be the most resilient and hardest to remove in order to provide you with a “worst case scenario.” Always test in field conditions to verify intended performance.

Spray paint and marker were applied as graffiti agents to the untreated and treated surfaces five days after application of the graffiti resistant products. Removal of the graffiti agents was attempted 24 hours after application of the graffiti agents, using Enviro Klean® SafStrip® 8 and Sure Klean® Graffiti Remover.

Chemical cleaners were evaluated using the following procedure:

1. Apply the product to a dry surface, soiled with graffiti.
2. Allow appropriate dwell time and periodically agitate:
 SafStrip® 8..... 30 minutes
 Graffiti Remover 5 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 40-degree fan spray tip was used for rinsing.

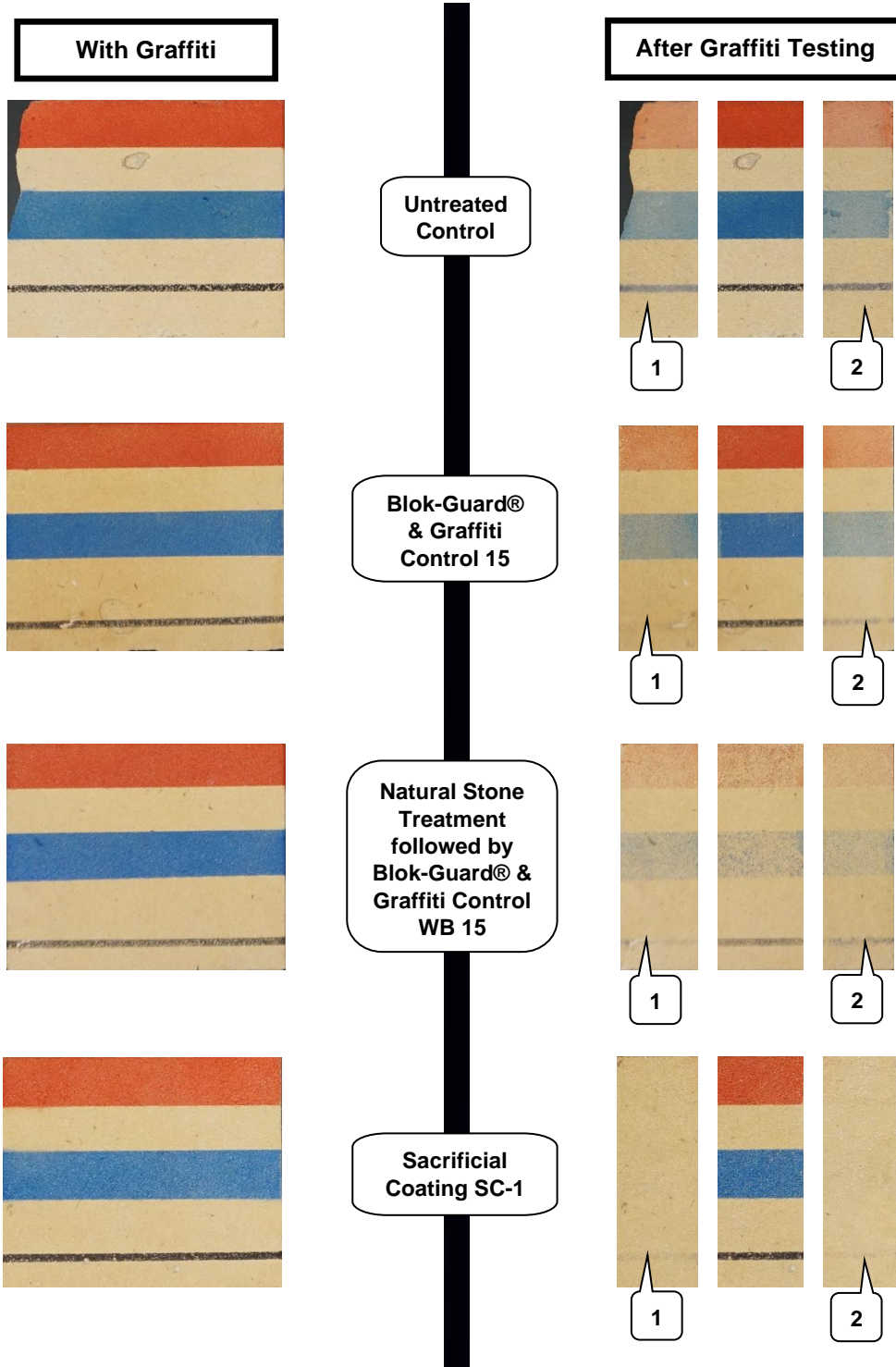
Graffiti removal was evaluated visually using a scale from 0 to 10, with 0 indicating no removal of the graffiti agent and 10 indicating complete removal of the graffiti agent.

TEST RESULTS AND PHOTOGRAPHS: Graffiti Resistance

“Silverdale” Smooth Limestone				
Untreated Control	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip® 8	5	5	3	4.3
Graffiti Remover	5	5	3	4.3
Blok-Guard® & Graffiti Control 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip® 8	5	5	9	6.3
Graffiti Remover	5	5	6	5.3
Natural Stone Treatment WB followed by Blok-Guard® & Graffiti Control WB 15	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip® 8	7	7	8	7.3
Graffiti Remover	7	7	7	7.0
Sacrificial Coating SC-1	Red Paint	Blue Paint	Black Marker	Avg. Rating
SafStrip® 8	9	10	8	9.0
Graffiti Remover	9	9	9	9.0

TEST RESULTS AND PHOTOGRAPHS: Graffiti Resistance (cont.)

“Silverdale” Smooth Limestone



KEY
1 = SafStrip® 8
2 = Graffiti Remover

CONCLUSIONS: Graffiti Resistance

Based on the laboratory evaluations, graffiti removal was improved with all of the specified treatments. However, Sure Klean® Weather Seal Sacrificial Coating SC-1 proved most effective.

Application of Sure Klean® Weather Seal Sacrificial Coating SC-1 provided moderate color enhancement to the submitted sample. No sheen enhancement was observed.

Enviro Klean® SafStrip® 8 and Sure Klean® Graffiti Remover were both effective in removing graffiti from the submitted samples.

On-site testing is always recommended to ensure the desired result. Heavy graffiti staining may require more than one application of the graffiti remover.

RECOMMENDATIONS: Graffiti Resistance

Recommendations for graffiti resistance for the limestone submitted by Silverdale Quality Stone, Arkansas City, KS are provided in the chart below. Recommendations are based on the treatment(s) that proved most effective on average for providing graffiti repellency and the product that was most effective on average at removing the graffiti on all types submitted. Heavy graffiti staining may require more than one application of the graffiti remover.

Sample	Graffiti Resistance
"Silverdale" Smooth Limestone	<p style="text-align: center;"><u>Graffiti Repellents</u></p> <p style="text-align: center;">¹Sure Klean® Weather Seal Sacrificial Coating SC-1 OR</p> <p style="text-align: center;">²Sure Klean® Weather Seal Natural Stone Treatment WB followed by Sure Klean® Weather Seal Blok-Guard & Graffiti Control WB 15</p> <p style="text-align: center;"><u>Graffiti Removers</u></p> <p style="text-align: center;">OR Enviro Klean® SafStrip® 8 OR Sure Klean® Graffiti Remover</p>

NOTE: "1" indicates the most effective product and "2" indicates the second most effective product.

Please refer to the Product Data Sheet or visit www.prosoco.com/voccompliance to confirm VOC compliance with individual district or state 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.



J. Lucas Comadoll
 QC/Project Testing Technician

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF THIRTY (30) DAYS AFTER THE ISSUE DATE OF THIS REPORT. IF SAMPLES ARE TO BE RETAINED FOR ADDITIONAL TESTING OR RETURNED TO THE SENDER, PROVIDE WRITTEN INSTRUCTIONS TO THE LABORATORY WITHIN THIRTY (30) DAYS OF THE ISSUE DATE OF THIS REPORT.

Recommendations made within this report are based on laboratory test applications and observations. Final determination of the suitability of a product and/or procedure should be made only after thorough job testing on actual surfaces.