

SIMONIZ

Efficacy Tests and Reports



WORLD CLASS APPEARANCE PRODUCTS

VISION CLEAR

**ALLOY WHEEL
PRO**

GlassCoat
Technology Driven Protection

with Stain Sentry®

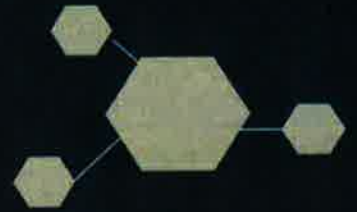
 **SaniCheck**
Anti-Microbial Surface Protection

SURFACE PRO

- ✓ Paint & Interior Protection
- ✓ Protection When Minor Dings Occur
- ✓ Anti-Microbial Interior Surface Protection
- ✓ Wheel & Brake Dust Protection
- ✓ Windshield & Headlight Protection



with Stain Sentry®



Exterior Protection:
Acid rain, bird droppings, tree sap, insect damage, and more.

Interior Protection:
Fabric seats, leather seats, floor mats and more.

The Product

Simoniz Glasscoat w/stain Sentry

The Test

To determine the durability of Glasscoat using an Accelerated Weather test, SAE Test J2527-2004, which prescribes wavelength distribution, irradiance, humidity, exposure, and water spray cycles

The Test Result

Glasscoat showed no failure after 1750 hours of weatherometer testing...the equivalent of 7+ years.

The Test Lab

Atlas Material Testing
Chicago, IL



Paint protection against: acid rain, bird droppings, tree sap, insect damage, road de-icing agents, hard water etching and UV damage.
Interior protection against: consumable foods, chewing gum, make-up, crayons, food dyes, blood, urine stains, pet waste, clothing dye, ink and vomit.



Accelerated Weather Test Comparing Simoniz Glasscoat to Seven Other Products

September 2015



Simoniz USA

Bolton, Connecticut

Summary

An accelerated weather test was chosen to compare weather resistance of nine products: (1) Simoniz Glasscoat, (2) Auto Armor Cleaner/Renewer, (3) PermaPlate Paintguard, (4) Xzilon Orange (foil package), (5) Xzilon Green (foil pkg.), (6) Xzilon Green (bottle), (7) Cilajet PS, (8) EcoCar Pro. Results were as follows:

Product	Hours to Failure	Mid-Atlantic Avg. Weather
Simoniz Glasscoat (1)	no failure at 1750	over 7 years
Auto Armor (2)	500 - 750	2 - 3 years
PermaPlate Paintguard (3)	less than 250	less than 1 year
Xzilon Orange (4)	750	3 years
Xzilon Green (5)	approx. 500	approx. 2 years
Xzilon Green (bottle) (6)	n/a	n/a
Cilajet PS (7)	750	3 years
EcoCar Pro (8)	approx. 500	approx. 2 years

Introduction

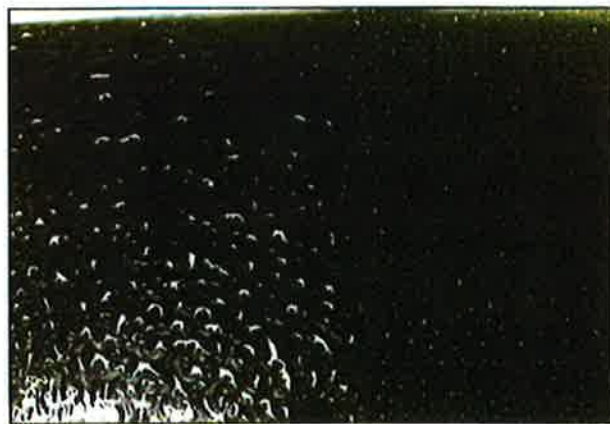
The effects of weather—ultraviolet light and water condensation/evaporation—represent a constant threat to the longevity of an automotive paint sealant (PS), and is a significant factor in the long-term degradation/removal of PS from the surface of a treated vehicle. Seven PS products were chosen for evaluation. Test panels were prepared and sent to Atlas Materials Testing of Chicago, IL, which is the oldest and largest manufacturer of weather test equipment. To test PS products against the effects of weather, an accelerated weather cabinet, or Weatherometer, is used. The current exposure standard for such a test is the Society of Automotive Engineers' Standard SAE J2527-2004, which prescribes wavelength distribution, irradiance, humidity, exposure, and water spray cycles. Although manufacturers of Weatherometers and authors of the official exposure test standards refuse to equate hours in the cabinet with months of exposure to average weather conditions, it is understood within the automotive coatings industry that 500 hours in the cabinet is approximately equal to two years' coastal weather at 30-50 degrees North Latitude (mid-Atlantic).

The test was run for a total of 2000 hours. Between 1750 and 2000, the UV destroyed the base coat/clearcoat substrate and the panels chalked over. Product performance could only be tested through 1750 hours.

Weatherometer Exposure	Average Weather Exposure
250 hrs.	1 year
500 hrs.	2 years
750 hrs.	3 years
1000 hrs.	4 years
1500 hrs.	6 years

Methodology: Since PS products deliver a thin, invisible coating to the base coat/clearcoat substrate, it isn't visually evident if the coating is fresh, degraded, or absent. The active ingredients of a PS product are commonly selected to be hydrophobic, and differences in Water Repellence can be detected

visually. Degradation of the PS coating can be reliably inferred from reduction in water repellence. However, pure water has a high surface tension, which causes it to "bead" well on hard smooth surfaces like an automotive base coat/clearcoat. If the surface tension is slightly reduced, the liquid beads nicely on a highly hydrophobic surface (such as PS) in small circular beads. If the liquid is gently misted onto an uncoated substrate, the water forms large amoeba-shaped beads which combine to form larger amoeba-shaped beads. Approximately 30 mL liquid is used. Test panels were coated half with a PS product, half uncoated, and submitted to Atlas for exposure. They were returned for evaluation, and sent back to Atlas for additional exposure. Two products, Permaplate Paintguard and Xzilon Green (bottle), exhibited such poor water repellence at initial application, that their performance was difficult or impossible to document.



The Uncoated left side is easily distinguished from the Coated right side. The coating is Auto Armor.

Results and Discussion

Simoniz Glasscoat:

Water repellence at 1750 hours was indistinguishable from that at initial application. In the first photograph (fig. 1), considerably more than the usual 30mL was misted onto the panel, and the beads on the coated surface simply would not coalesce. The

coating's hydrophobic character forced the excess Spray Solution to the uncoated half or off the edge. The close-up photo (fig. 2) indicates that the liquid beads still retain their circular base.



Fig. 1 Simoniz Glasscoat 1750 hours

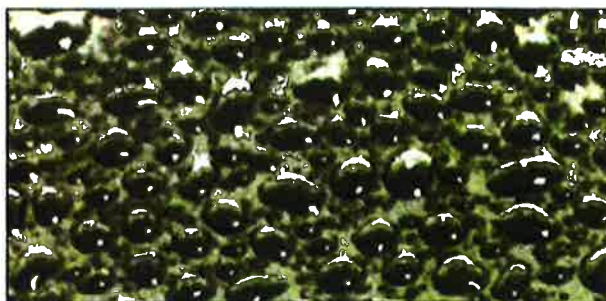


Fig. 2 Simoniz Glasscoat 1750 hours (detail)

Auto Armor Cleaner Renewer:

Water repellence at 250 hours was clearly evident (fig. 3). The beads themselves have begun to take on an amoeba-shaped base (fig. 4). At 500 hours, the distinction between Uncoated/Coated halves is

evident (fig. 5), but the beads are highly irregular (fig. 6). At 750 hours, the distinction between Uncoated and Coated halves has disappeared (fig. 7), and the beads' base shapes have become random (fig. 8).



Fig. 3 Auto Armor at 250 hrs



Fig. 4 Auto Armor at 250 hrs (detail)

Results and Discussion *Continued*

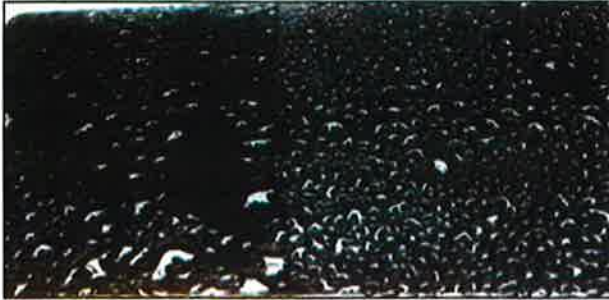


Fig. 5 Auto Armor at 500 hours



Fig. 6 Auto Armor at 500 hours (detail)



Fig. 7 Auto Armor at 750 hours

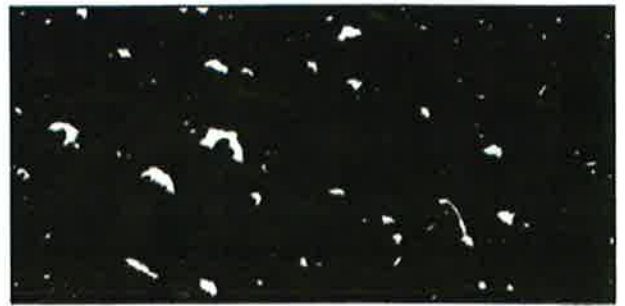


Fig. 8 Auto Armor at 750 hours

PermaPlate Paintguard:

Water repellence at initial application was so poor that it was impossible to distinguish the Coated half of the panel from the Uncoated half (the left half in the photo) (fig. 9). It was possible to discern a difference in the rate at which water flows off the panel when tipped. Figure 10 shows water has flowed

off the coated half, while about a quarter of the initial volume on the uncoated half remains in the instant that the picture was snapped. At 250 hours, it was impossible to discern a difference in water-shed rate between the two halves.



Fig. 9 PermaPlate Paintguard 0 hours



Fig. 10 Water sheds slightly faster from the Coated half]

Results and Discussion *Continued*

Cilajet:

Water repellence at 500 hours was quite good, as indicated by the clear difference between Uncoated and Coated halves (fig. 11). In the photo, Spray Solution has coalesced into large drops on the uncoated half. In the closeup (fig. 12), the drops are only slightly irregular. By 750 hours, the distinction between the two halves was nearly gone (fig. 13).

There was in fact a visual difference between the Uncoated and Coated halves, but it affected the way light was reflecting, not in the shape or size of the beads, and couldn't be caught in a photograph. At 1000 hours, even that perceptible difference had disappeared.



Fig. 11 Cilajet at 500 hours



Fig. 12 Cilajet at 500 hours (detail)



Fig. 13 Cilajet at 750 hours

Results and Discussion *Continued*

Xzilon Green (foil pkg.):

Water repellence at 250 hours (fig. 14) was sufficient to distinguish between the coated and uncoated halves of the panel. At 500 hours, there is no perceptible difference (fig. 15), and the beads of Spray Solution are irregular in shape (fig. 16).



Fig. 14 Xzilon Green at 250 hours



Fig. 15 Xzilon Green at 500 hours

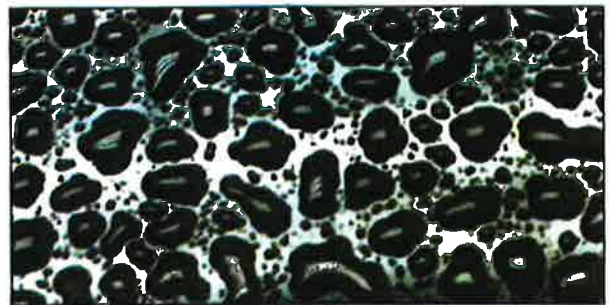


Fig. 16 Xzilon Green at 500 hours (detail)

Xzilon Green (aluminum bottle):

Like the PermaPlate Paintguard, Xzilon Green (bottle) exhibited extremely poor water repellence as to make it indistinguishable from the uncoated half. We tried multiple coats, different drying times, misting on a bit of distilled water to encourage molecular cross-linking (if possible), different panels—all to no avail. The panel in figure 17 (hole-side Uncoated) was submitted nevertheless to see if differences might appear. They did not.



Fig. 17 Xzilon Green (bottle) initial application. The right half of the panel is the coated half.

Results and Discussion *Continued*

Xzilon Orange (foil pkg.):

Water repellence at 250 hours (fig. 18) and at 500 hours (fig. 19) is sufficient to clearly distinguish the uncoated and coated halves. At 750 hours, water repellence of the coated half had degraded to the point that it was impossible to distinguish coated from uncoated (fig. 20).



Fig. 18 Xzilon Orange at 250 hours



Fig. 19 Xzilon Orange at 500 hours



Fig. 20 Xzilon Orange at 750 hours

EcoCar Pro:

Water repellence of the coated half at 250 hours is sufficient to distinguish it from the uncoated, and the beads of spray solution are very small but slightly amoeba-shaped. (fig. 21). By 500 hours, the coated

and uncoated halves cannot be distinguished, and the beads on the coated side are irregularly shaped (fig. 22).



Fig. 21 EcoCar Pro at 250 hours



Fig. 22 EcoCar Pro at 500 hours

Conclusion

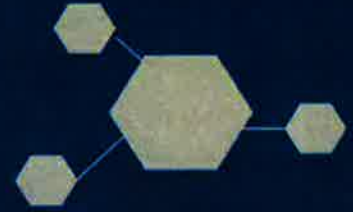
Product	Longevity in Avg. Weather Conditions
Simoniz GC	7 years +
Cilajet	3 years
Xzilon Orange	3 years
Auto Armor	2-3 years
EcoCar Pro	2 years
Xzilon Green	1-2 years
PermaPlate Paintguard	1 year

Products are listed in order of performance. At 1750 hours, the Simoniz GC panel was identical to its condition at initial application. The Cilajet PS and Xzilon Orange product performances were practically identical, with little or no distinction between Coated and Uncoated sides at 750 hours. Spray Solution was misted on the panels in various quantities from 30-60 grams of solution in an attempt to coax differences to appear at least to the observer, if not to the camera. At 1000 hours, those “subjective differences” had disappeared. Those coatings were mostly or all gone at 750 hours. The Auto Armor product appeared

to have completely vanished by 750 hours, but was clearly present but “going” at 500, as judged by the amoeba-shaped beads of Spray Solution in fig. 6. The two ecology-conscious products, EcoCar Pro and Xzilon Green (foil package), performed below the non-ecology products. The solids content of EcoCar Pro is 2.5%, which suggests the product to be at least 97% water. At initial application, the beads of Spray Solution were slightly irregular in shape (which seems to bode ill for long-term performance) but very small, so there can be no doubt that EcoCar Pro’s active ingredients (probably silicone in a micro emulsion) are hydrophobic. The product physically resembles a standard silicone spray & wipe. Xzilon Green (foil package) exhibited poor water repellence as judged by amoeba-shaped beads of Spray Solution visible at initial application. The product was clearly present at 250 hours, but it was also clearly “going.” Failure was easily diagnosed as having happened between 250 and 500 hours. PermaPlate Paintguard presented a problem—extremely poor water repellence on initial application—as did Xzilon Green in the bottle. There was no evidence (as judged by water repellence) that either product was on its panel after 250 hours in the test cabinet.

VISION CLEAR

Windshield & Headlight Protection



better vision...safer driving



Headlight protection from fading and more.



Provides hydrophobic protection against rain and environmental elements.



Windshield protection that improves vision clarity.

The Product

Simoniz Vision Clear

The Test

A windshield gravel bombardment test of 100 stones expelled onto a Vision Clear treated half of a windshield vs untreated from 13 ¼ inches through a gravel tube muzzle at 70 PSI.

The Test Result

The untreated windshield side showed projectiles leaving major pitting in the glass with large chips through the outer glass layer. The Vision Clear treated side showed only minor pitting with no chipping in the glass.

The Test Lab

Cascade TEK
Hillsboro, OR



Windshield protection Improves vision clarity and provides hydrophobic protection against rain and environmental elements.. Headlight protection from fading and yellowing that improves vision clarity.



TEST REPORT

CTC 7917-1

April 8, 2016

LABORATORY LOCATIONS



OREGON
5245-A NE Elam Young Pkwy.
Hillsboro, OR, 97124 • Ph: 503-648-1818



COLORADO
1530 Vista View Drive
Longmont, CO, 80504 • Ph: 720-340-7610

www.cascadetek.com



Cascade Technical Sciences
www.cascadetek.com
1-888-835-9250

April 8, 2016

Certification No: CTC 7917-1

Attention: Mr. Tom Palancia
Simoniz USA, Inc.
201 Boston Turnpike
Bolton, CT 06043

Reference: a. Cascade Tek Job No.: 7917
b. Cascade Tek Quote No.: CTQ 18321B
c. Client Purchase Order No.: 52116
d. Technical Specification: 1. Customer SOW Referencing SAE J1455, Para. 4.8

Cascade Technical Sciences hereby certifies that Vision Clear treatment was applied to a test windshield and then subjected to the following test:

1. Windshield Gravel Bombardment per Reference (b) Item 1 and (d1), automotive glass windshield was treated with the customer-supplied chemical then exposed to bombardment of gravel 3/8 to 5/8 inch diameter. 100 stones were expelled onto the treated side of the windshield. The glass was positioned 13 ¾ inches from the gravel tube muzzle and the stones were delivered under a pressure of 70 PSI.

Testing was done in accordance with the above references as evidenced and reported in the accompanying data. The test sample was returned to the customer for evaluation.

The original of this report is on file at Cascade Technical Sciences, Inc. under the above referenced certification number for review by authorized personnel. The results of the testing reported herein relate only to the actual item tested.

Respectfully submitted,



David Bowles
Quality Administrator
Cascade Technical Sciences, Inc.

This test certification shall not be reproduced, except in full, without written authorization from Cascade Technical Sciences Inc.

Total number of pages in this document is 15.

The objective of this test program was to subject customer provided test hardware to environmental simulation in compliance with customer stated specification, including any authorized modification, deviations or concessions to the original requirements. The hardware consisted of items identified in the appropriate sections of this report. In addition to test hardware identification, each section contains information that describes the associated test setup and performance and the resulting data. Cascade TEK, Inc. measuring instruments used in testing were calibrated according to the requirements of ANSI/NCSS Z540-1-1944 and ISO/IEC 17025, 2nd Edition and are NIST traceable. Calibration records are on file and available for inspection by request. Because the test methods are well established and are qualitative or semi-quantitative in nature, Cascade TEK, Inc. does not apply measurement uncertainty unless obligated by contract. Measured value related to the corresponding tolerance requirement is used to decide whether a test meets the requirements of the specification. Any test hardware operational setups and resulting evaluations or inspections performed by the customer are not included in this report, unless they were explicitly requested. While observations and/or specification compliance statements may be reported, no interpretations or opinions regarding customer product performance are intended. Unless otherwise indicated in the appropriate report section, all contract obligations were met and the test objective achieved.



Test Data Log

Section 1 – Job Information

Job Number: 7917

Customer: Simoniz

Date Started: 3/17/2016

Date Completed: 3/18/2016

QA Reviewer: David Bowles

Responsible Technician: Brandon Payne

Signature: *David Bowles*

Quote Issued By: Chris Ingebritsen

Customer Witness: No Yes Name:

Section 2 – Test Parameters

Test Title: Gravel Bombardment

Test Specification: Customer SOW Ref. SAE J1455, Para. 4.8

Test Description: Automotive glass treated with customer supplied chemical to be exposed to bombardment of gravel 3/8 to 5/8 inch diameter. 100 stones will be expelled onto untreated and treated sides of the windshield. Glass will be positioned 13 3/4 inches from gravel tube muzzle and the stones will be delivered under a pressure of 70 PSI.

Section 3 – Test Sample Information

Sample Description	Sample P/N or Model No.	Sample S/N or Other Identifier	Qty.
Glass Treatment	Vision Clear		1

Section 4 – Test Equipment

ID No.	Description	Manufacturer	Model No.	Serial No.	Last Cal	Next Cal
408	Lab Ambient Temp/Hum	Extech	445703	CP94594	12/20/2014	12/31/2016
T-2	Measuring Tape	Stanley	33-428	N/A	Verified	Before Use
380	Pressure Gauge	Ashcroft	355-09	E178089	01/21/2016	01/31/2017
.....	Ruler	Westcott	JN2C	N/A	Reference	Only
N/A	Automotive Glass	Fuyao Glass Industry Group Co., Ltd.	FWO2011 GGNFYG	08/13/15	N/A	N/A

Section 5 – Test Log

Customer Name: Simoniz
 Job Number: 7917

Laboratory Temperature: 73°F
 Laboratory Humidity: 25%RH

Initials	Date	Time	Notes	Photo
BP	3/17/2016	0915	Begin setup of glass for application of customer supplied chemical. Glass will be pre-cleaned with water and paper towels before chemical application. The panel will be divided into two halves, one treated with customer supplied chemical and the other tested untreated as a control.	<input type="checkbox"/>
BP	3/17/2016	0946	The chemical (VisionClear) has been applied in accordance with customer instructions using terrycloth pad and buffed clear with paper towels	<input checked="" type="checkbox"/>
BP	3/18/2016	1016	Begin setup of gravel bombardment box.	<input type="checkbox"/>
BP	3/18/2016	1038	The setup is complete with sample to be exposed (VisionClear) placed 13 ¾ inches from gravel nozzle. Begin gravel bombardment on control and treated sides of glass.	<input checked="" type="checkbox"/>
BP	3/18/2016	1104	Vision Clear Control side showed projectiles leaving pitting in the glass with large chips through the outer glass layer. The Test side showed projectiles leaving minor pitting with no major chipping in the glass.	<input checked="" type="checkbox"/>
BP	3/18/2016	1235	Gravel bombardment complete. Photos taken and stored.	<input checked="" type="checkbox"/>
			Test Complete	

TEK

Date: 03-17-16
Simoniz USA, Inc.
Job#: 7917
Gravel Bombardment



CONTROL

VISION CLEAR

2016.03.17

DATE: 03 - / 8 - 16
Simoniz USA, Inc.
Job # 7917
Gravel
Bombardment

2016.03.18

CONF

TEK

Date: 03 - 18 - 16
Simoniz USA, Inc.
Job # 7917
Gravel
Bombardment

2016 03 18

Date: 03-18-16

Simoniz USA, Inc.

Job#: 7917

Gravel Bombardment
Post-Exposure

2016.03.18

VISION CLEAR

CONTROL

AVANT
TEK

Date: 03 - 18 - 16
Simoniz USA, Inc.
Job#: 7917
Gravel Bombardment
Post-Exposure

CONTROL

VISION 2016.03.18



SIMONIZ

JOB #

7917

DATE

03 - 18 - 16

TEST

GRAVEL

S/N #

VISION CLEAR (CONTRAY)

POST - EXPOSURE

2016 03 18

CASCADE
TEK

SIMONIZ

JOB #

7917

DATE

03-18-16

TEST

GRAVEL

S/N #

VISION CLEAR (TEST)

POST-EXPOSURE

2016 03 18

CASCADE
TEK

SIMONIZ

JOB #

7917

DATE

03-18-16

TEST

GRAVEL

S/N #

VISION CLEAR (CONTROL)

POST-EXPOSURE

2016 03 18

STAINLESS STEEL



CASCADE
TEK

SIMONIZ

JOB #

7917

DATE

03-18-16

TEST

GRAVEL

S/N #

VISION CLEAR (TEST)

POST-EXPOSURE

2016.03.18



continuously protects... eco-friendly

Provides protection from germs.

Interior protection odors in the ventilation system, seat-

The Product

Simoniz Sanicheck Anti-Microbial Surface Protection

The Test

To determine if Sanicheck, featuring MonoFoil antimicrobial technology, is effective against mold, mildew, and algae as a static agent and to determine if Sanicheck Anti-Microbial provides freshness and combats deterioration and discoloration by odor causing bacteria, fungi, and algae.

The Test Result

Simoniz Sanicheck was allowed an EPA registration (EPA Reg. No. 87538-2-18305 sub-registered under the Coeus Technologies) verifying claims.

The Test Lab

US Department of Environmental Protection



Interior protection from germs, viruses and odors in the ventilation system, seating cabin and cargo areas.



ANTI-MICROBIAL SURFACE PROTECTION

EPA Reg. No. 87538-2-18305 EPA Est. No. 18305-CT-01

ACTIVE INGREDIENT:
 3-(trihydroxyethyl) propyltrimethylammonium chloride 1.3%
 Inert Ingredients 98.7%
TOTAL: 100.00%

KEEP OUT OF REACH OF CHILDREN

FIRST AID	
Have product container or label with you when calling Poison Control Center or doctor, or going for treatment.	
• If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. • Call a Poison Control Center or doctor for treatment advice.

PRODUCT FEATURES AND BENEFITS

- SaniCheck Technology imparts durable biostatic activity to the surface of a wide variety of substrates.
- SaniCheck Technology is effective against mold, mildew and algae as a static agent.
- Increased efficiency through proper application, desirable bacteriostatic, fungistatic and algicidal surfaces can be obtained with a minimum amount of SaniCheck Antimicrobial. Provides freshness and combats deformation and discoloration caused by odor causing bacteria, fungi and algae.

DIRECTIONS FOR USE

It is violation of Federal Law to use this product in a manner inconsistent with its labeling. SaniCheck can be applied to organic or inorganic substrates by brushing, dipping, padding, soaking, spraying or by using foam finishing techniques. Clean surfaces of debris prior to application. SEE DIRECTIONS FOR USE FOR ADDITIONAL APPROVED COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL USES ON THE ATTACHED BROCHURE.

APPROVED COMMERCIAL AND INDUSTRIAL USES

The active ingredients in SaniCheck is effective against odor causing bacteria and fungi (mold and mildew), bacteria and fungi (mold and mildew) which cause staining and discoloration, and algae as a static agent. SaniCheck can be used as a final bacteriostatic finish on the following items to impart bacteriostatic / fungistatic (mold and mildew) and algicidal activity.
 Use areas include plastics, fiberglass, metals, glass, wood, ceramics, stone, natural material, and composites; including air filters for furnaces, air conditioners, air purification devices, automobiles, and recirculating air handling systems; aquarium filter; automobile and vehicular parts. SEE DIRECTIONS FOR USE FOR ADDITIONAL APPROVED COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL USES ON THE ATTACHED BROCHURE.

APPROVED RESIDENTIAL USES

Bed sheets, blankets, bedspreads, curtains, draperies, underwear, socks, intimate apparel, hoodies, throw rugs, towelings, toilet tank covers, shower curtains, shoe linings, inner and outerwear apparel. SEE DIRECTIONS FOR USE FOR ADDITIONAL APPROVED COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL USES ON THE ATTACHED BROCHURE.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal. Storage and Disposal: Store in original, tightly closed container in an area inaccessible to children or persons unfamiliar with its use. Keep tightly closed until ready to use. Reclose tightly closed until ready to use. Reclose tightly after each use. When stored in original unopened containers at or below 25°C (77°F), has a minimum shelf life of 12 months from date of shipment.

CONTAINER HANDLING

Non-refillable container. Do not reuse or refill container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved but state and local authorities.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, and chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not discharge effluents containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems with out previously notifying the local sewerage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. De-activation of SaniCheck® Anti-Microbial Surface Protection can be achieved by the addition of an anionic surfactant or detergent (such as soap, sulfonates, or sulfates) in quantity equivalent to that of the active ingredient.

Distributed by:



201 Bacon Turnpike
 Susan, CT 06043
 (800) 227-2628
 www.simoniz.com

NET CONTENTS: 32 Oz (946 mL)



MonoFoil™

EFFICACY DATA for

Product Central 105: Disinfectant / Sanitizer (MonoFoil® 1.3% Solution)

VIRUCIDAL DATA:

Protocols for Testing the Efficacy of Disinfectants against Hepatitis B Virus (HBV) (EPA, Federal Register, Vol. 65, No. 166, 8/25/2000, p. 51828).

: Protocol for Testing Disinfectants against Hepatitis C Virus using Bovine Viral Diarrhea Virus as approved by the U.S. EPA on August 16, 2002.

U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, 1982, Section 91-30, pp. 72-76.

- Virucide Assay (EPA, Federal Register 10, No. 123, 6/25/75, p. 26836)

: 10 minute contact time, glass petri dish substrates, 18.5-25°C exposure temperature, tested in the presence of serum

Results:	Test Organism	Sample	Titer Reduction		
	†Adenovirus Type 5	A	B	≥3.0 log ₁₀	≥3.3 log ₁₀
	*Avian Influenza A/Turkey/Wisconsin (ATCC VR-798)	A	B	≥5.5 log ₁₀	≥5.5 log ₁₀
	‡Bovine Viral Diarrhea Virus (BVDV)	A	B	5.93 log ₁₀	5.93 log ₁₀
	•Hepatitis B Virus (HBV) (Duck Hepatitis B Virus-DHBV)	A	B	4.68 log ₁₀	4.68 log ₁₀
	‡Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus-BVDV)	A	B	5.93 log ₁₀	5.93 log ₁₀
	†Herpes Simplex Type 1 (Sabin)	A	B	4.0 log ₁₀	4.0 log ₁₀
	*Human Coronavirus (ATCC VR-740, strain 229E)	A	B	≥4.25 log ₁₀	≥4.25 log ₁₀
	*Human Immunodeficiency Virus, HIV-1, strain HTLV-III _B , (associated with AIDS)	A	B	≥3.5 log ₁₀	≥3.5 log ₁₀
	†Influenza A ₂ (Japan 305/57)	A	B	7.5 log ₁₀	7.5 log ₁₀
	*Laryngotracheitis (LT-IVAX)	A	B	4.75 log ₁₀	≥4.75 log ₁₀
	*Newcastle Disease Virus (strain H.J. Roakin, 1946)	A	B	≥5.5 log ₁₀	≥5.5 log ₁₀
	*SARS associated Coronavirus (ZeptoMetrix)	A	B	4.03 log ₁₀	4.03 log ₁₀
	†Vaccinia (Wyeth)	A	B	3.5 log ₁₀	3.5 log ₁₀

Conclusion: Under the conditions of this investigation, MONOFOIL® 1.3% Solution was virucidal for Adenovirus Type 5, Avian Influenza A/Turkey/Wisconsin, Bovine Viral Diarrhea Virus (BVDV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Type 1 (Sabin), Human Coronavirus, Human Immunodeficiency Virus (HIV-1), Influenza A₂ (Japan 305/57), Laryngotracheitis, Newcastle Disease Virus, SARS associated Coronavirus and Vaccinia (Wyeth) according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.



MonoFoil™

SANITIZATION DATA:

Test Method: AOAC Germicidal and Detergent Sanitizing Action of Disinfectants

Test Conditions: synthetic hard water as 650 ppm hardness (as CaCO₃)

200 ppm active quaternary (public eating establishments and dairies)

200-400 ppm active quaternary (food processing equipment/utensils)

1-2 ounces/1 gallon dilution

Results:

TOTAL BACTERIAL COUNTS/ % KILL vs. EXPOSURE TIME

Organism	30 seconds			60 seconds		Initial Inoculum
	Sample	TBC*	% Kill†	TBC*	% Kill†	Control Count
<i>Staphylococcus aureus</i> (ATCC 6538)	A	970	99.999	105	99.999	7.8 x 10 ⁷
	B	1285	99.999	205	99.999	9.2 x 10 ⁷
	C	1145	99.999	130	99.999	9.3 x 10 ⁷
<i>Escherichia coli</i> (ATCC 11229)	A	1125	99.999	50	99.999	1.0 x 10 ⁸
	B	1075	99.999	95	99.999	9.3 x 10 ⁷
	C	835	99.999	75	99.999	8.1 x 10 ⁷
<i>Campylobacter jejuni</i> (ATCC 29428)	A	790	99.999	410	99.999	8.6 x 10 ⁷
	B	780	99.999	470	99.999	8.6 x 10 ⁷
<i>Escherichia coli</i> O157:H7 (ATCC 43895)	A	1220	99.999	110	99.999	9.2 x 10 ⁷
	B	1000	99.999	125	99.999	9.2 x 10 ⁷
<i>Listeria monocytogenes</i> (ATCC 35152)	A	<10	>99.999	<10	>99.999	7.8 x 10 ⁸
	B	<10	>99.999	<10	>99.999	7.8 x 10 ⁸
Methicillin resistant <i>Staphylococcus aureus</i> (ATCC 33592)	A	950	99.999	<10	>99.999	1.0 x 10 ⁸
	B	970	99.999	<10	>99.999	1.0 x 10 ⁸
<i>Salmonella typhi</i> (ATCC 6539)	A	<10	>99.999	<10	>99.999	1.4 x 10 ⁸
	B	<10	>99.999	<10	>99.999	1.4 x 10 ⁸
<i>Shigella sonnei</i> (ATCC 11060)	A	680	99.999	<10	>99.999	9.3 x 10 ⁷
	B	4500	99.999	<10	>99.999	9.3 x 10 ⁷
Vancomycin resistant <i>Enterococcus faecalis</i> (ATCC 51299)	A	<10	>99.999	<10	>99.999	1.2 x 10 ⁸
	B	<10	>99.999	<10	>99.999	1.2 x 10 ⁸
<i>Vibrio cholera</i> (ATCC 14035)	A	<10	>99.999	<10	>99.999	8.3 x 10 ⁷
	B	<10	>99.999	<10	>99.999	8.3 x 10 ⁷
<i>Yersinia enterocolitica</i> (ATCC 23715)	A	108	99.999	<10	>99.999	1.7 x 10 ⁸
	B	1300	99.999	263	99.999	5.9 x 10 ⁸

*TBC = Total Bacterial Count, organisms/ml

Kill calculation based on Initial Inoculum Control Count.

Conclusion: Under the conditions of these investigations, MONOFOIL® 1.3% Solution demonstrated sanitizing activity against *Staphylococcus aureus*, *Escherichia coli*, *Campylobacter jejuni*, *Escherichia coli* O157:H7, *Listeria monocytogenes*, Methicillin resistant *Staphylococcus aureus*, *Salmonella typhi*, *Shigella sonnei*, Vancomycin resistant *Enterococcus faecalis*, *Vibrio cholera* and *Yersinia enterocolitica* according to criteria established by the U. S. Environmental Protection Agency



MonoFoil™

SANITIZATION DATA (continued):

Test Method: AOAC Germicidal and Detergent Sanitizing Action of Disinfectants

Test Conditions: synthetic hard water as 650 ppm hardness (as CaCO₃)

300-400 ppm active quaternary (food processing equipment/utensils ONLY)

1.5-2.0 ounces/1 gallon dilution

Results:

Organism	30 seconds		TOTAL BACTERIAL COUNTS/ % KILL vs. EXPOSURE TIME			Initial Inoculum	
	Sample	TBC*	% Kill†	60 seconds TBC*	% Kill†	Control Count	
<i>Klebsiella pneumoniae</i> (ATCC 4352)	A	100	99.999	<10	>99.999	9.4 x 10 ⁸	
	B	310	99.999	<10	>99.999	9.4 x 10 ⁸	

*TBC = Total Bacterial Count, organisms/ml

† Kill calculation based on Initial Inoculum Control Count.

Conclusion: Under the conditions of these investigations, MONOFOIL® 1.3% Solution demonstrated sanitizing activity against *Klebsiella pneumoniae* at 300 ppm quaternary concentration and 650 ppm water hardness according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer.

Test Method: AOAC Germicidal and Detergent Sanitizing Action of Disinfectants

Test Conditions: synthetic hard water as 500 ppm hardness (as CaCO₃)

200 ppm active quaternary (public eating establishments, dairies, and food processing equipment/utensils)

1 ounce/1 gallon dilution

Results:

Organism	30 seconds		TOTAL BACTERIAL COUNTS/ % KILL vs. EXPOSURE TIME			Initial Inoculum	
	Sample	TBC*	% Kill†	60 seconds TBC*	% Kill†	Control Count	
<i>Klebsiella pneumoniae</i> (ATCC 4352)	A	340	99.999	<10	>99.999	1.1 x 10 ⁸	
	B	190	99.999	<10	>99.999	1.1 x 10 ⁸	

*TBC = Total Bacterial Count, organisms/ml

† Kill calculation based on Initial Inoculum Control Count.

Conclusion: Under the conditions of these investigations, MONOFOIL® 1.3% Solution demonstrated sanitizing activity against *Klebsiella pneumoniae* at 200 ppm quaternary concentration and 500 ppm water hardness according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer.



MonoFoil™

DISINFECTION DATA:

Test Method: AOAC Use Dilution

Test Conditions: 5% organic soil load, 10 minute contact time, stainless steel carrier substrates
20°C exposure temperature

Results:

<u>Test Organism</u>	<u>Dilution</u>	<u>Number of Carriers</u> <u>Sample</u>	<u>Exposed</u>	<u>Positive</u>
<i>Staphylococcus aureus</i> (ATCC 6538)	3 ounces/5 gallons	A	60	0
		B	60	0
<i>Salmonella enterica</i> (ATCC 10708)	3 ounces/5 gallons	A	60	0
		B	60	0
<i>Listeria monocytogenes</i> (ATCC 35152)	3 ounces/5 gallons	A	10	0
		B	10	0
<i>Yersinia enterocolitica</i> (ATCC 23715)	3 ounces/5 gallons	A	10	0
		B	10	0
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	3.5 ounces/5 gallons	A	60	0
		B	60	0
<i>Staphylococcus aureus</i> (Vancomycin intermediate resistant) (VISA) (HIP- 5836)	3.5 ounces/5 gallons	A	10	0
		B	10	0
<i>Xanthomonas axonopodis</i> (pathovar <i>citri</i>) (Citrus Canker) (USDA Permit No. 46190)	2.67 ounces/1 gallon	A	10	0
		B	10	0

Under the conditions of these investigations, MONOFOIL® 1.3% Solution demonstrated **disinfectant** activity against *Staphylococcus aureus*, *Salmonella enterica*, *Listeria monocytogenes*, *Yersinia enterocolitica*, *Pseudo-monas aeruginosa*, *Staphylococcus aureus* (Vancomycin intermediate resistant) (VISA), and *Xanthomonas axonopodis* pathovar *citri* (citrus canker) according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide.

Confidential Not for Public View



ABSTRACT

The MonoFoil® Antimicrobial technology destroys microbial organisms by acting directly on the surface of the cell. While highly active in solution, the polymer agent is most active as a bound polymer matrix attached to a surface. This short technical review describes the mode of action of the antimicrobial agent with respect to both solution activity and surface bound activity.

Coeus Technology, LLC
5540 West 53rd Street Parkway
Anderson, IN 46013
Phone: 765.203.2304
Fax: 866.385.8313



MonoFoil™
Clean Redefined®

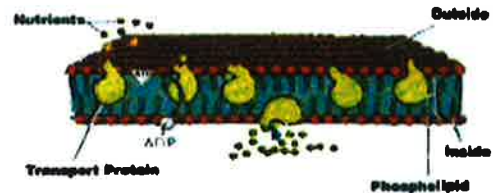
Call us or visit our website at:
www.monofoilclean.com

TECHNICAL BRIEF

Mode of Action of the MonoFoil Antimicrobial Technology: Solution Activity vs. Bonded Activity

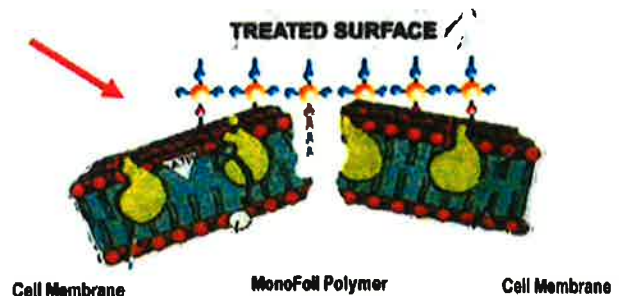
The MonoFoil active ingredient (A.I.) in aqueous solution is known to have high antimicrobial activity. In water, the A.I., 3-(trihydroxysilyl) propyldimethyloctadecyl ammonium chloride will hydrolyze into a silane triol. The ability of this molecule to kill virus, bacteria in solution is high (MIC *Avian Influenza* $\geq 5.5 \log_{10}$). As this molecule reacts with receptive surfaces, the ability for it to orient into subsequent monolayers leads to the formation of a covalently bound, very potent durable antimicrobial.

The mode of action of the MonoFoil surface bound polymer is directed specifically at the inner membrane of the cell. This cellular membrane is fluid. The phospholipids that make up the backbone of the membrane are in constant motion.



It is this fluidity that allows for the transport of food and energy throughout the cell and is responsible for the entire integrity of the organism itself. If this membrane fluidity is disrupted, the cell will die.

As the hydrolyzed A.I. reacts with the surface, it transforms from a silane triol monomer (found in solution) to a covalently linked polymer matrix. It is only in this polymer matrix that full durable antimicrobial activity is obtained. As the bacteria, virus or fungi contact the polymer matrix, the MonoFoil polymer integrates into the membrane. A one micron cell organism contacts a treated surface and is exposed to approximately 25,000 molecules of the A.I. concentrated at a single site. It is this concentrated attack that disrupts the fluidity of the membrane and ruptures the cell. In solution, this concentrated attack on the membrane by the A.I. cannot happen due to the lack of matrix formation and overall concentration of the active ingredient. This is shown graphically below:



As the micro polymer matrix integrates directly into the cell membrane, the cell is ruptured. This concentrated polymer is only available on the surface of a treated substrate as the solution contains unreacted monomers.

RE-DEFINING CLEAN....

Coeus Technology, Inc has formulated and produces the **WORLD'S FIRST** and only 1-step, non-toxic, non-off-gassing, quick killing, and **DURABLE** Antimicrobial (disinfectant).

When it comes to harmful microbes (virus, bacteria, mold, mildew, algae and yeast)...**MonoFoil provides a quick killing action, molecularly bonds to the treated surfaces and keeps on killing for extended periods of time.**

All conventional antimicrobials, disinfectants (**unbound**) used legally in the US, including quaternary ammonium salts, bleach, peroxides, alcohols, phenols, formaldehydes, paint formulations, etc., work on the basis of diffusion away from the treated surface. This promotes adaptation, loss of activity, leaching, diffusion, and creation of zones of inhibition. Quite simply, their effect is short-lived. An unbound chemical, such as ethyl alcohol, and any of the quaternary ammonium compounds (quats), peroxide, formaldehyde, metal ions and other topical disinfectants, must be applied to and then diffuse or leach from the treated surface and be consumed by the microorganism to be effective. These chemicals are intended to act quickly and dissipate equally quickly to minimize the danger to humans and treated objects. Many, including those used routinely in health care environments to clean hard non-porous surfaces are simply wiped away after a brief contact time or just evaporate.

Once the antimicrobial/disinfectant has dried or is depleted or has been washed away during regular maintenance, the **protection vanishes**. This is why high touch surfaces must be cleaned routinely - the chemicals used have no lasting effect. This is not an unintended deficiency; instead, it is what they are meant to do. Microbes are then transferred from their source to hands, clothing, and equipment and then to unprotected (but perhaps recently cleaned or disinfected) objects such as doorknobs, clothing, surfaces are not destroyed by contact with the objects. Instead, they remain there until they die or become non-viable, are removed at a subsequent cleaning or are transferred to another individual. **It is this transfer of viable microbes that, if prevented or controlled, can lower risk by**

lowering frequently of exposure.

MonoFoil utilizing reactive organo-silane chemistry which makes it essentially permanent, and treated surfaces benefit from extended antimicrobial protection that can be measured in weeks, months and years.

A (**bound**) antimicrobial agent such as **MonoFoil** remains chemically attached to the surface on which it is applied. It functions by interrupting the organism's delicate cell membrane. This prevents microorganisms from carrying on vital life processes. This antimicrobial (**MonoFoil**) acts on contact with organisms and can do so again and again. One can think of the bound antimicrobial like a sword that is capable of repeated use. In comparison, a conventional antimicrobial /disinfectant treatment is more like a gun with limited ammunition. Since a bound antimicrobial (**MonoFoil**) is fixed to the surface it continually operates at full strength. This means the genetic adaptation process, which is an inherent problem with conventional antimicrobial/disinfectants, cannot and does not occur with a **MonoFoil**.

MonoFoil is unique to the industry. Coeus Technology has been able to combine the benefits of both the bound and unbound.

How important is this? This is extremely important. Within the health-care industry they require the quick "killing" action of unbound products, but do NOT want the side effects of the conventional disinfectant chemicals (strong smell, damages surfaces, short lived, toxic and harmful to the user). With the **MonoFoil** product line also adding the bound function all in one-step, there is a level of durability that can be provided that did not exist before. By combining these two processes thru a proprietary formulation, which is clean, stable and very versatile, **Coeus has been able to make a "game changing" product.**

MonoFoil provides continuous protection that does not promote genetic adaptation by the organisms and that does not pose unnecessary risk to the ultimate organisms being protected...us.

As the leader in automotive car care, Simoniz® USA delivers this Disinfecting Spray to give you the power of cleaning and disinfecting in one easy step. It is a proven soft surface sanitizer against: *Staphylococcus aureus*, *Enterobacter aerogenes*, *Staphylococcus aureus*, *Staphylococcus aureus*, Upholstery, Fabric, Couches, Blankets and Seat Cushions. Use on hard washable nonporous surfaces of: Dashboards, Steering Wheels, Windows, Doors, Instrument Panels, Painted Surfaces, Cup Holders, Rear View Mirrors, Side View Mirrors, Carbon Fiber, Fiberglass, Seat Belt Buckles, and Center Console. Use on other hard nonporous surfaces made of: Metal Vinyl or Plastic Upholstery, Laminated Surfaces, Stainless Steel and Glazed Porcelain.

As a disinfectant, this product is effective against:

Bacteria: *Pseudomonas aeruginosa* [Pseudomonas], *Salmonella enterica* [Salmonella], *Staphylococcus aureus* [Staph], *Escherichia coli* [E. coli], *Acinetobacter baumannii* [Acinetobacter], *Burkholderia cepacia*, *Campylobacter jejuni* [Campylobacter], *Corynebacterium ammoniagenes*, *Enterobacter aerogenes*, *Enterobacter faecalis*, *Enterobacter faecalis* [Enterobacter], *Enterococcus faecalis*, *Enterococcus faecalis* [Enterococcus], *Enterococcus faecalis* - Vancomycin resistant [VRE] *Enterococcus coli* [E. coli], *Escherichia coli*, *New Delhi Metallo-beta Lactamase (NDM-1)*, *ESBL*, *Escherichia coli* [Extended spectrum beta-lactamase producing E. coli], *Klebsiella pneumoniae* [Klebsiella], *Klebsiella pneumoniae* -NDM-1 positive, *Legionella pneumophila*, *Listeria monocytogenes* [Listeria], *Salmonella enteritidis* [Salmonella], *Salmonella typhi* [Salmonella], *Serratia marcescens*, *Shigella dysenteriae* [Shigella], *Staphylococcus aureus* - Community Associated Methicillin-Resistant [CA-MRSA] [USA300], *Staphylococcus aureus* - Community Associated Methicillin-Resistant [CA-MRSA] [NRS123] [USA400], *Staphylococcus aureus* - Methicillin-Resistant [MRSA], *Staphylococcus aureus* Multi-Drug Resistant [resistant to tetracycline [Tc], penicillin [Pc], streptomycin [Sm] and erythromycin [Em] and susceptible to chloramphenicol [Cm] in vitro], *Staphylococcus aureus* - Vancomycin Intermediate Resistant - [VISA], *Streptococcus pyogenes* [Strep] [a cause of scarlet fever], *Vibrio cholerae*, *Viruses:* "Hepatitis B Virus [HBV]", "Hepatitis C Virus [HCV]", "Herpes Simplex Virus Type 1", "Herpes Simplex Virus Type 2", "HIV-1 [AIDS Virus]", "Human Coronavirus", "Influenza Virus Type A", "Brazil [Influenza]", "Influenza Virus Type A / Hong Kong [Influenza]", "2013 Influenza A Virus [H7N9]", "Norwalk Virus [Feline Calicivirus] [Norovirus]", "Respiratory Syncytial Virus [RSV]", "Rotavirus -SARS Associated Coronavirus [SARS] [cause of Severe Acute Respiratory Syndrome]", "Vaccinia [Pox Virus]", "Adenovirus Type 5", "Adenovirus Type 7", "Norwalk Virus [Feline Calicivirus] [Norovirus]", "Rotavirus, Fungi: *Aspergillus niger*, *Aspergillus fumigatus*, *Trichophyton mentagrophytes* [the Athlete's Foot Fungus].

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DISINFECTION / FUNGICIDAL / FUNGICIDAL / MOLD & MILDEW CONTROL DIRECTIONS: Spray 6 - 8 inches from surface, until surfaces are thoroughly wet. Do not breathe spray, breathe surfaces mist, or wear wet or heavy clothing. Do not use on leather, vinyl, or plastic. Rinse all surfaces that come in contact with food such as: cutlery, appliances, tables and stovetops with potable water before reuse. Do not use on utensils, glassware and dishes.

Directions continue on right panel.
ITEM #: S2026006
 Rev. 11/15



READY TO USE INTERIOR CAR SURFACE SANITIZER, DISINFECTANT & DEODORIZER

Regulator:
 Dept. - B3sd
 on EPA stamp
 label dated 6-23-15

For use in boats, ships, trailers,
 cars, taxis, and airplanes.



ACTIVE INGREDIENTS:
 Decyl dimethyl ammonium chloride 0.025%
 Dodecyl dimethyl ammonium chloride 0.010%
 Dodecyl dimethyl ammonium chloride 0.010%
 Aet (C₁₂, 50% C₁₂, 45% C₁₀, 10%) dimethyl benzyl ammonium chloride 0.040%
 Other ingredients 99.915%
 Total ingredients 100.000%

**KEEP OUT OF REACH OF CHILDREN
 CAUTION**

See side panel for Precautionary Statements
 EPA REG. NO. 6836-152-18305 EPA EST NO. 18305-CT-01
 FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. Have the container or label with you when calling a poison control center or doctor, or going for treatment.

Sold by:



NET CONTENTS 32 FL. OZ. (2 PT.) 946 mL

Continued Directions For Use
FOR FUNGICIDAL ACTIVITY: An effective one-step fungicide against *Trichophyton mentagrophytes* when used on hard nonporous surfaces in areas such as locker rooms, dressing rooms, shower and bath areas and exercise facilities. Allow surface to remain wet for 10 minutes. **FOR MOLD AND MILDEW:** Repeat treatment every 7 days or more often if new growth appears. This product is not for use on medical device surfaces.

KILLS HIV-1 AND HBV AND HCV ON TREATED ENVIRONMENTAL SURFACES / OBJECTS PREVIOUSLY SOILED WITH BLOOD / BODY FLUIDS in health care settings or other settings in which there is exposure to blood of or from individuals infected with HIV-1, HBV, HCV, or HCV. This product is not for use on medical device surfaces and in which the surfaces / objects (such as needles, syringes, blood or body fluids can be associated with the spread of HIV-1, HBV, HCV, or HCV. Human Immunodeficiency Virus Type 1 [HIV-1] or Hepatitis B Virus [HBV] or Hepatitis C Virus [HCV].

Special Instructions for Cleaning and Decontamination against HIV-1 or HBV or HCV on Surfaces / Objects Soiled With Blood / Body Fluids. Personal Protection: Clean-up should always be done wearing protective gloves, gowns, masks and eye protection. Cleaning Procedure: Blood and other body fluids containing HIV or HBV or HCV must be thoroughly cleaned from surfaces and objects before application of this product.

Contact Time: Leave surface wet for 1 minute (60 seconds) for HIV-1 and 10 minutes for HBV and HCV. Use a 10 minute contact time for disinfection against all other viruses, bacteria and fungi claimed. Disposal of Infectious Material: Blood, body fluids, cleaning materials and clothing should be autoclaved and disposed of according to local regulations for infectious waste disposal.

TO SANITIZE SOFT SURFACES: Hold bottle 6" - 8" from surface and spray until fabric is wet. Fabric must remain wet for 5 minutes. Allow fabric to air dry. Heavily soiled areas must be cleaned prior to sanitizing. **TO CLEAN AND DEODORIZE:** Spray directly on surface to be cleaned. Wipe or allow to air dry.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
 Caution. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

STORAGE AND DISPOSAL Do not contaminate water, food or feed by storage or disposal. Pesticide Storage: Open dumping is prohibited. Store in original container in areas inaccessible to children. Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse or equivalent. Offer for recycling or reconditioning or puncture and dispose in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

201 Boston Turnpike
 Bolton, CT 06043
 800-227-5536
 www.simoniz.com



Lonza

Lonza Inc
90 Boroline Road
Allendale, NJ 07401, USA

Claribel Reyes-Garcia
Specialty Ingredients – Regulatory Assurance

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claribel.reyes.garcia@lonza.com

November 23, 2015

Authorization/Certification Letter In Support of State Registration

Lonza Formulation DC-103 (EPA Reg. No: 6836-152)

EPA STAMPED LABEL DATED: 6-25-15

Dear Sir or Madam:

Lonza Inc. supports the state registration of the following:

**SIMONIZ USA, INC.
201 BOSTON TURNPIKE
BOLTON CT 06043**

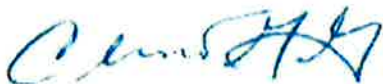
for their referenced product:

**READY TO USE INTERIOR CAR SURFACE SANITIZER, DISINFECTANT & DEODORIZER
(32 fl. oz.)
6836-152-18305**

I hereby certify that the distributor label is identical to the EPA accepted basic product registration in all respects, except for the differences authorized under Federal Regulations 40 CFR Part 152.132.

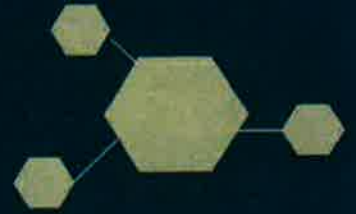
This letter will also serve as your authorization to utilize the data found in Lonza Inc. company files to support supplemental registration of above product. No data is to be released without expressed written consent from Lonza Inc.

Sincerely



Lonza Inc.
Claribel Reyes-Garcia

SURFACE PRO **paint protection when dings occur**



it's not if...its when!



Enhanced paint protection when dings occur.

Innovative, high quality paint repair solutions for vehicle owners.

The Product

Simoniz Surface Pro

The Test

A car door "ding" test to determine if two coats of Simoniz Glasscoat could prevent the cracking and chipping of a vehicles paint when dings occur. An eleven (11) pound cylinder with a hemispherical end was dropped from one meter above the door to produce a representative door ding.

The Test Result

The dropped cylinder produced a golf ball sized ding approximately 1.5 inches in diameter. Simoniz Surface Pro protected the paint with no paint chipping or cracks and only light abrasions. These light abrasions were easily buffed out with traditional detail methods.

The Test Lab
Cascade Tek
Hillsboro, OR



Surface-Pro protection protects the painted surface of the vehicle when minor dings occur. Surface-Pro protection plan is designed to enhance customer loyalty, protect the investment of customers' vehicles and create an additional revenue stream that increases profitability for body shops.



TEST REPORT

CTC 7723-1

April 8, 2016



Accredited by
American Association for
Laboratory Accreditation (AZLA)
2602.01 & 2602.02



Certified Commercial
Package Testing Laboratory
(ISTA)



MIL-STD Laboratory
Suitability Status by
Defense Logistics Agency (DLA)

LABORATORY LOCATIONS



OREGON
5245-A NE Elam Young Pkwy.
Hillsboro, OR, 97124 • Ph: 503-648-1818



COLORADO
1530 Vista View Drive
Longmont, CO, 80504 • Ph: 720-340-7810

www.cascadetek.com

Job Number: 7723

Rev.	Description of the Revision	Date
---	Initial Release of the Data Report.	April 8, 2016

Test Title	Test Summary
Car Door Ding Test	The test was conducted per the required standard with no deviations.



Cascade Technical Sciences
www.cascadetek.com
1-888-835-9250



TESTING CERT #2582.01

April 8, 2016

Certification No: CTC 7723-1

Attention: Mr. Bill Gorra
Simoniz USA, Inc.
201 Boston Turnpike
Bolton, CT 06043

Reference: a. Cascade Tek Job No.: 7723
b. Cascade Tek Quote No.: CTQ 17868
c. Client Purchase Order No.: 50633
d. Technical Specification: 1. Customer SOW

Cascade Technical Sciences hereby certifies that GlassCoat Paint Sealant was applied to the test object and then subjected to the following test:

1. Car Door Ding Test per Reference (b) Item 2 and (d2), the customer supplied coating was applied to an automotive door per customer instruction. A spherical shaped object was dropped onto the door to produce a 1-2 inch indentation in the painted door surface.

Testing was done in accordance with the above references as evidenced and reported in the accompanying data. The test sample was returned to the customer for evaluation.

The original of this report is on file at Cascade Technical Sciences, Inc. under the above referenced certification number for review by authorized personnel. The results of the testing reported herein relate only to the actual item tested.

Respectfully submitted,



David Bowles
Quality Administrator
Cascade Technical Sciences, Inc.

This test certification shall not be reproduced, except in full, without written authorization from Cascade Technical Sciences Inc.

Total number of pages in this document is 11.

The objective of this test program was to subject customer provided test hardware to environmental simulation in compliance with customer stated specification, including any authorized modification, deviations or concessions to the original requirements. The hardware consisted of items identified in the appropriate sections of this report. In addition to test hardware identification, each section contains information that describes the associated test setup and performance and the resulting data. Cascade TEK, Inc. measuring instruments used in testing were calibrated according to the requirements of ANSI/NCSL Z540-1-1944 and ISO/IEC 17025, 2nd Edition and are NIST traceable. Calibration records are on file and available for inspection by request. Because the test methods are well established and are qualitative or semi-quantitative in nature, Cascade TEK, Inc. does not apply measurement uncertainty unless obligated by contract. Measured value related to the corresponding tolerance requirement is used to decide whether a test meets the requirements of the specification. Any test hardware operational setups and resulting evaluations or inspections performed by the customer are not included in this report, unless they were explicitly requested. While observations and/or specification compliance statements may be reported, no interpretations or opinions regarding customer product performance are intended. Unless otherwise indicated in the appropriate report section, all contract obligations were met and the test objective achieved.



Test Data Log

Section 1 – Job Information

Job Number: 7723
Customer: Simoniz

Date Started: 12/2/2015
Date Completed: 12/2/2015

QA Reviewer: Larry Harmon

Responsible Technician: Brandon Payne

Signature: *Larry Harmon*

Quote Issued By: Chris Ingebritsen

Customer Witness: No Yes Name:

Section 2 – Test Parameters

Test Title: Car Door Ding Test

Test Specification: Customer Statement of Work.

Test Description: Customer coating to be applied to the door per customer instruction. A spherical shaped object shall be dropped onto the door to produce a 1-2 inch indentation in the painted door surface.

Section 3 – Test Sample Information

Sample Description	Sample P/N or Model No.	Sample S/N or Other Identifier	Qty.
GlassCoat paint sealant	CPC G3 Glass Coat G1338		1

Section 4 – Test Equipment

ID No.	Description	Manufacturer	Model No.	Serial No.	Last Cal	Next Cal
408	Lab Ambient Temp/Hum	Extech	445703	CP94594	12/20/2014	12/31/2016
N/A	Ruler	Empire	S4	N/A	Verified Before Use	
1284	Drop Tester	LAB	AD160A	291246	Reference Only	
---	11 lb. Weight	Custom	-----	-----	Verified Before Use	

Section 5 – Test Log

Customer Name: Simoniz
 Job Number: 7723

Laboratory Temperature: 73°F
 Laboratory Humidity: 27%RH

Initials	Date	Time	Notes	Photo
BP	12/2/2015	0903	Begin setup of car door for first application of GlassCoat product. Painted door surface has been cleaned with alcohol and paper towels to remove any possible wax or coating left behind.	<input type="checkbox"/>
BP	12/2/2015	0915	Glasscoat applied with supplied applicator and allowed to dry for five minutes before buffing with customer supplied microfiber cloth. The first application of GlassCoat is complete. Second application will begin 30 minutes after first application.	<input checked="" type="checkbox"/>
BP	12/2/2015	0950	Second application of Glasscoat is complete. Begin setup of door under drop apparatus for door ding test.	<input checked="" type="checkbox"/>
BP	812/2/2015	0954	The setup is complete with 11 lb. cylinder, with a hemispherical end, to be dropped from one meter above door to produce representative door ding. Begin Drop.	<input checked="" type="checkbox"/>
BP	12/2/2015	0959	Drop complete. Door ding photographed with light abrasion noted. Photos taken and stored for customer evaluation.	<input checked="" type="checkbox"/>
Test Complete				

Date: 12-02-15
Simoniz USA, Inc.
Job#: 7723
Car Door Ding Test

GLASS COAT

2015.12.02

2015 12 02

Date: 12-02-15
Simontz USA, Inc.
Job#: 7723
Car Door Ding-Test





SIMONIZ

JOB #

7723

DATE

12-02-15

TEST

DOOR DING

S/N #

GLASS COAT

15

16

17

18

2015.12.02

30
31
32
33

caspro
TECH
JOB # 7723
DATE 12-02-15
TEST DOOR DING
SN # GLASS COAT
SIMONIZ

15

16

2015 12 02

CASCADE
TEK

SIMONIZ

JOB # 7723

DATE 12-02-15

TEST DOOR/DWG

SIN # 64533087

2015.12.02

ALLOY WHEEL PRO

Wheel Surface Protection



keep the "new" wheel look

Provides protection from minor surface abrasions.

Immediate and obvious increase in pride of ownership and resale value.

The Product

Simoniz Alloy Wheel Pro

The Test

Since exposed aluminum is vulnerable to pitting/corrosion (cosmetic degradation), almost all aluminum wheels sold on cars today are coated with an aluminum primer wheel paint system. Our objective was to determine the durability of a coating of these alloy wheels with Simoniz Glasscoat. A durable hydrophobic coating would allow a spinning wheel to throw dirt and dirty water thus making it easier and more likely to stay clean and offer atmospheric and environment protection.

The Test Result

The Accelerated Weather Test supports the claim that Simoniz Glasscoat adheres to the aluminum alloy wheel paint for 4+ years offering a hydrophobic barrier to contaminants.

The Test Lab

Atlas Material Testing
Chicago, IL



Alloy Wheel Pro protection reduces brake dust buildup, keeps your alloy wheels cleaner, and enhances the look of your vehicle.



**Accelerated Weather
Test to Confirm
Adhesion of Simoniz
Glasscoat to Aluminum
Wheel Paint**

June 2016

Simoniz USA

Bolton, Connecticut

Summary

New Summary: An accelerated weather test was used to demonstrate that Simoniz Glasscoat adheres to Aluminum Wheel Paint as effectively as it does to automotive paint/clearcoat systems (as demonstrated by similar tests of January 2014 and September 2015). An aluminum panel coated with aluminum wheel paint was used. Half the surface was coated with Simoniz Glasscoat, which imparts a hydrophobic (water beading) property that the paint itself lacks. The panel was subjected to 1000 hours' exposure in a Xenon Arc Weatherometer. Photographs of the panel at intervals throughout the exposure period document the hydrophobic property of the Glasscoat-coated half of the panel, thus confirming the presence and effectiveness of the Glasscoat coating throughout the exposure period.

Introduction

Since exposed aluminum is vulnerable to pitting/corrosion, almost all aluminum wheels sold on cars today are coated with a primer/aluminum wheel paint (clearcoat optional) system. The dull silver color of the wheel you see is the color of the paint itself (likely pigmented with powdered aluminum), not the aluminum of the wheel. As Simoniz Glasscoat is highly hydrophobic and would work with the spinning of the wheel to cast dirty or contaminated water completely off the wheel, many Glasscoat applicators recommend coating the wheel paint, thus improving the wheel's appearance and making it easier to clean.

The recommendation is sound only if the Glasscoat remains attached to the wheel paint and maintains its hydrophobic quality. The purpose of the present test is to confirm that Simoniz Glasscoat adheres as strongly to Aluminum Wheel Paint as it does to automotive body paint systems, which adhesion was demonstrated in Accelerated Weather test reports dated January 2014 and September 2015.

Methodology: As with the earlier tests, an Accelerated Weather Test was commissioned, according to Society of Automotive Engineers' Standard SAE J2527. A raw aluminum test panel was purchased from ACT Labs of Hillsdale, Michigan. Though ACT manufactures aluminum panels, it has never coated them. Therefore, we elected to coat the panel ourselves with a popular polyurethane

wheel paint called VHT High Temperature Wheel Paint, preceded by the recommended primer, VHT Primer. After the application of two coats primer followed by two coats paint, the panel was allowed to dry for ten days. Next, the Right Half of the panel was coated with Simoniz Glasscoat; the Left Half (hole-side) was not coated. The presence of the Glasscoat can be demonstrated by differences in the quality

of water beading between the coated and uncoated sides. It is common that a freshly painted surface beads water as well as a hydrophobic (e.g. Glasscoat-coated) surface. A solution specially prepared to reduce surface tension and accentuate the water repellence of the substrate, when sprayed onto the panel, gives a definite visual distinction between the two halves (fig. 1).



Fig. 1. Aluminum paint (Panel 1) at zero (0) hours exposure.

The panel was submitted to Atlas Weathering Services Group of Mt. Prospect, Illinois, for a total of 1000 hours in a Xenon Arc Weatherometer according to SAE J2527. The duration of 1000 hours was chosen for two reasons: 1) a professionally applied and baked-on automotive paint/clearcoat system can be expected to last between 1500 and 2000 hours before physical destruction of the resin and chalking of the surface; 2) the panel of this test was coated at ambient temperature and given only ten days to cure. Unlike biological systems, a chemically stable paint system ages extremely well. The durability/weather resistance of new automotive paint is demonstrably inferior to the same system aged 2 years. Therefore, we expected the paint on the test panel to last about half

as long as that of a professionally coated/baked panel.

The panel was returned at intervals of 250 hours for examination and documentation.

Results and Discussion

Initially, the paint exhibited a clear capability to bead water (Fig. 1, hole-side). The Glasscoat-coated side exhibited the extremely hydrophobic character expected of Simoniz Glasscoat (as evidenced by the pinhead-sized beads of spray solution).

At 250 hours, however, the hydrophobic character of the paint completely disappeared (Fig. 2). This result was unexpected, but one should resist the urge to read too much into the fact. It appears that the hydrophobic property of the paint's surface was itself a delicate property that 250 hrs exposure eradicated. The exposure did not materially damage the paint's surface, because the coating of Simoniz Glasscoat has clearly remained intact (as judged by the pinhead-sized beads of spray solution).



Fig. 2. Panel 1 at 250 hrs. exposure. Hole-side: uncoated Opposite: Simoniz Glasscoat-coated

Nevertheless, two additional panels were prepared for the purpose of evaluating the significance of the dramatic change seen in the uncoated-side at 250 hours. One panel received the primer/paint system as before, the second received primer/paint/VHT Clearcoat. The application/cure time took place during the 250-500 hour exposure cycle of the first panel, so they could only be submitted 500 hours into the test, and themselves run for a total of 500 hours.

At initial application, the uncoated (hole-side) of the clearcoat panel (Panel 3) exhibited poor water beading of spray solution, which indicates the clearcoat surface to be only weakly hydrophobic. Figures 3 and 4 show the Glasscoat-coated half of each panel to be strongly hydrophobic, as evidenced by the small tight beads of spray solution.



Fig. 3. Aluminum paint (Panel 2) zero (0) hours.



Fig. 4. Aluminum paint/Clearcoat (Panel 3) zero (0) hours.

At 250 hours, the exposed surface of the paint (hole-side Panel 2, Fig. 5) and the exposed surface of the clearcoat (hole-side Panel 3, Fig. 6) both lost much of their initial hydrophobic property, which replicates the observation with Panel 1 (hole-side Fig. 2). Although the first 250 hours' exposure does something to affect the paint's surface properties, the exposure certainly falls short of doing significant damage, as demonstrated by the quality of beading on the Glasscoat-coated side of all three panels. The beads of spray solution are small and round, which indicates the integrity of the Glasscoat coating remains uncompromised.



Figure 5. Panel 2 at 250 hours.



Figure 6. Panel 3 at 250 hours.

At 500 hours, the Glasscoat-coated half of all three panels continued to bead spray solution. For Panel 2 (Fig. 8) and Panel 3 (Fig. 9), this represents the end of the test. These panels

confirm the results of Panel 1 (Fig. 7) and support the conclusion that Simoniz Glasscoat indeed adheres to the surface of aluminum wheel paint (both the paint itself and the optional clearcoat) as it does to automotive body paint/clearcoat systems.



Figure 7. Panel 1 at 500 hours.



Figure 8. Panel 2 at 500 hours.



Figure 9. Panel 3 at 500 hours.

At 750 and 1000 hours, the Glasscoat-coated half of Panel 1 continue to bead water. At 1000 hours, the impression received from working with the panel in-hand is that the integrity of the paint was about to go. This is a subjective impression and cannot be documented

photographically. Nonetheless, the Glasscoat coating is clearly present and effective.



Figure 10. Panel 1 at 750 hours.



Figure 11. Panel 1 at 1000 hours.

Conclusion

The present test supports the claim that Simoniz Glasscoat adheres to Aluminum Wheel Paint and Clearcoat systems as effectively as it does to autobody paint/clearcoat systems. The Accelerated Weather test exposed the test panels to concentrated ultraviolet radiation, along with cycles of water condensation/evaporation. By 1000 hours, the exposure had begun to affect the integrity of the paint itself. Prior to that—in the period which represents the useful life of the paint—the water beading on the coated half of the test panel (Panel 1) attests to the presence and continued effectiveness of the Glasscoat coating. Panels 2 and 3 confirm the results from Panel 1 and support the conclusion.



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