



V I K I N G
P U R E S O L U T I O N S

Case Study: Senior Living

Electrochemically Activated, On-Site Generated,
Cleaning + Disinfecting Solutions





Case Study: Senior Living

Viking Pure Solutions was presented to a NJ Assisted Living Facility in August 2016.

A multi-phase trial program was implemented to test both efficacy and ease of use for the Viking Pure Solutions in place of the traditional cleaning solutions used by the facility's Housekeeping staff. Electrostatic Spray (ESS) technology was also evaluated to disinfect surfaces in the resident apartments.

To evaluate the effectiveness of the Viking Pure Solutions, ATP testing was utilized to measure the levels of surface contamination at both pre and post cleaning for traditional products vs the Viking Pure Solutions on-site generated solutions.

Comparison Testing: Control vs. Viking Pure Solutions Review



Implementation Phase (August-September 2016)

Viking Pure conducted a roundtable education session for the facility Housekeeping Team to give them valuable info on the Cleaning and Disinfecting System and its components. In addition, one-on-one training and certification sessions were held to ensure that all team members were aware about how to use the system properly. All Viking Pure equipment and products were delivered to the facility and set up for use.



Comparison Testing Phase (September-October 2016)

The Viking Pure Cleaning and Disinfecting System was introduced to the Memory Care unit and used alongside the standard cleaning process, using on-site generated PureSan and PureClean, and a Viking Pure hand held Electrostatic Sprayer. ATP swab testing was conducted on both processes for comparison.

Proper Application Requirements

Viking Pure 2-Step Cleaning and Disinfecting Procedure



PureClean

Degrease + Decontaminate
Surfaces



Step 1 **General Cleaning**

Thoroughly wipe down area with **PureClean** solution, suggest following 4-side microfiber folding method. Mop all hard surfaces with **PureClean** solution.



PureSan

Salt-free + Safe
Disinfecting Solution



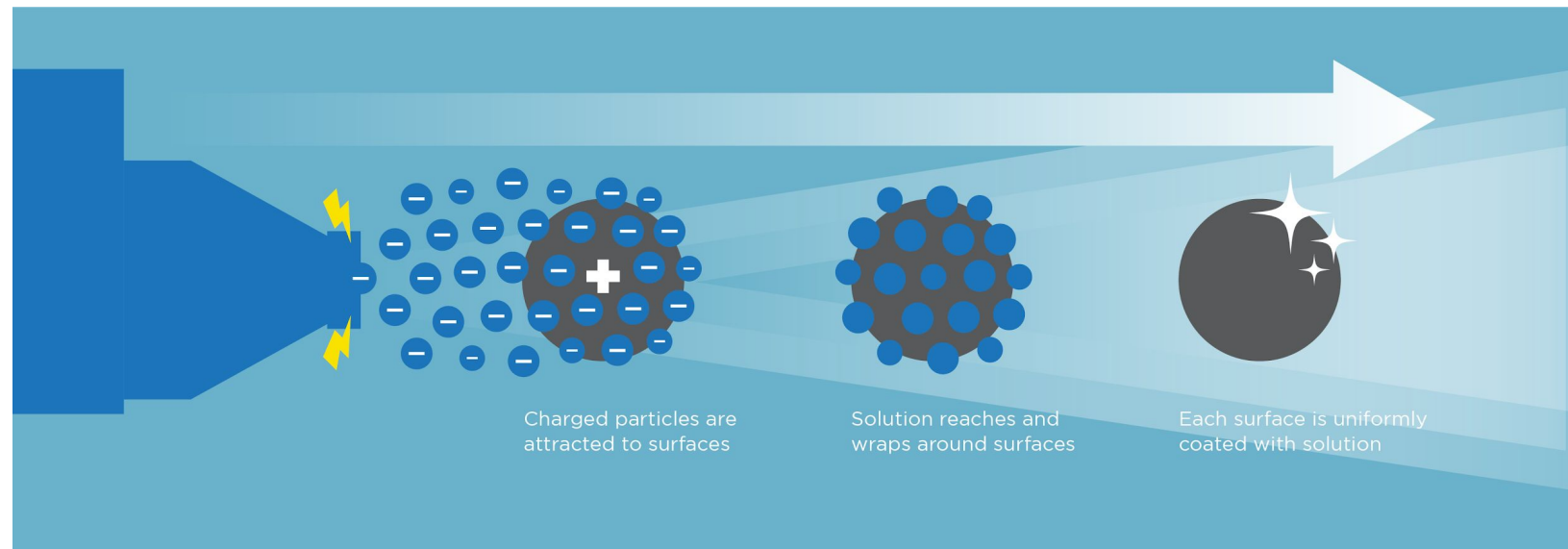
Step 2 **Disinfecting**

Apply 200ppm **PureSan** in area using the Electrostatic Sprayer (E-Mist), or thoroughly wipe down area with **PureSan**. Suggest following 4-side microfiber folding method and mopping all hard surfaces with **PureSan** solution.



Air-Assisted Electrostatic Sprayer

The Viking Pure Solutions applicator process provides a proprietary Air-Assisted Electrostatic Sprayer to quickly decontaminate and sanitize areas of various sizes, difficult to reach spaces and high-traffic areas that require frequent treatment.



- **Up to 10 times better coverage**
- **Reduces manpower costs**
- **Reduces threat of disease causing microorganisms**

Evaluation of Environmental Cleaning ATP Testing

Why ATP testing?

The ATP test is a process of rapidly measuring actively growing microorganisms through detection of adenosine triphosphate. ATP testing is used throughout the world for its sensitivity, speed and convenience.

- **ATP** is present in all microorganisms, including MRSA, VRE, Clostridium difficile, Norovirus, FLU and Acinetobacter spp.
- **Numeric Thresholds** are set by users based on industry standards. Results above this threshold are “dirty” and results at or below this threshold are “clean”.
- **Useful as a quick indicator of “clean” versus “dirty”**. ATP testing does not determine what specific microorganisms are present on said surfaces
- **CDC** recommended for Level II Environmental monitoring programs.



Comparison Testing—Control vs. Viking Pure Solutions

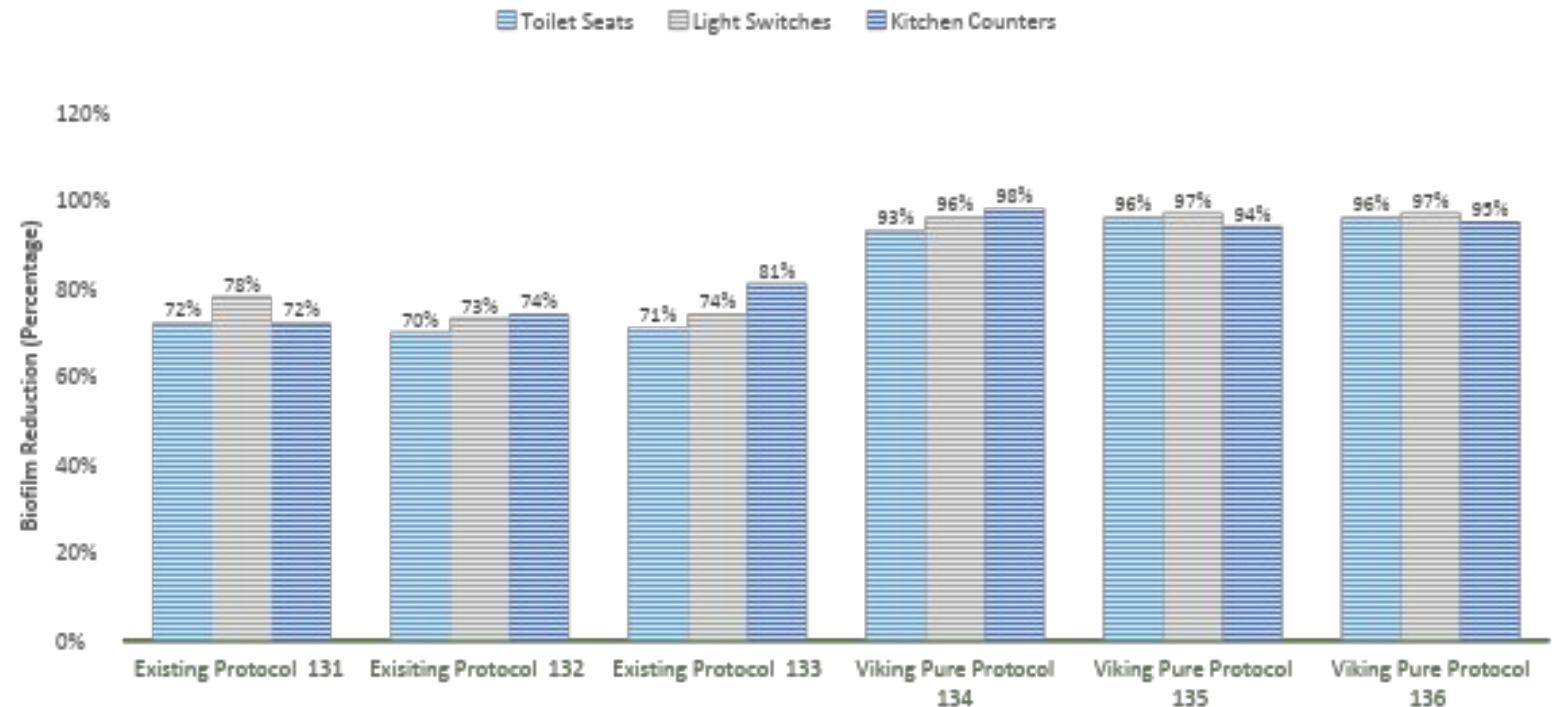
Biofilm Reduction Comparison

The Viking Pure solutions provided a greater and more consistent level of cleaning and sanitizing across the 3 apartments (134, 135, and 136) that were tested.

Reflections Memory Care Unit cleaned under normal schedule for facility.

Readings from ATP swab tests showed a consistent achievement of more than 95% biofilm reduction on all tested surfaces vs. 74% with traditional chemicals.

SURFACE SWAB TESTING (Current facility Protocol vs VP Solutions)



These products were replaced by the 2 Viking Pure Solutions.

2016 Chemical Usage

****Housekeeping products only considered (include kitchen usage for full understanding of cost savings)**

Item Number	2016 Quantity	Description	U/M	Pack Size
#154015	22	Cleaner Floor Spic-n-Span (CL) LAUNDRY	CS	3/1 gal
#156020	9	Cleaner Floor + All-Purpose Tide 1.5oz Powder Packet LAUNDRY	CS	100/1.5 oz
#151013	53	Cleaner Bathroom Comet Disinfectant (CL) DISPENSED DAILEY CLEANER	CS	3/1 gal
#150114	52	Deodorizer Febreze 5x (CL) DISPENSED DAILEY CLEANER	CS	2/1 gal
#150126	52	Cleaner Floor Mr. Clean (CL) DISPENSED DAILEY CLEANER	CS	3/1 gal
#154015	7	Cleaner Floor Spic-N-Span (CL) DISPENSED DAILEY CLEANER	CS	3/1 gal
#150121	41	Cleaner Spic-N-Span 3-N-1 (CL) DISPENSED DAILEY CLEANER	CS	2/1 gal
#150116	5	Deodorizer Febreze 5x Hampton Inn (CL) DISPENSED DAILEY CLEANER	CS	2/1 gal
#156091	14	Sanitizer Broad Range (CL) DISPENSED DAILEY CLEANER	CS	3/1 gal
#150153	72	Bleach Clorox Ultra Germicidal Concentrate 3/121 oz MISC	CS	3/121 oz
#280007	117	Cleaner Oven + Grill Grease Buster MISC	CS	4/1 gal
#280080	78	Cleaner Drain Drain-Zyme MISC	PL	5 gal
#151204	66	Cleaner Urine Remover Clorox MISC	CS	9/32 oz
#150113	4	Deodorizer Febreze 2x Aerosol MISC	CS	9/9.7 oz
#156038	5	Detergent Dish Dawn 5-Gallon MISC	PL	5 gal
#155216	17	Cleaner Carpet Extraction + Sanitizer #25 (PL) CARPET	CS	4/1 gal
#155240	9	Cleaner Carpet Spotter Bio-Spot #21 (PL) CARPET	BX	3/25 oz
#155242	9	Cleaner Carpet Spotter General #20 (PL) CARPET	BX	3/25 oz
#155244	11	Cleaner Carpet Spotter Tannin #22 (PL) CARPET	BX	3/25 oz
#158009	10	Cleaner Floor Enzi-Kem FLOOR CARE	CS	4/1 gal
#150125	2	Cleaner Floor Mr. Clean FLOOR CARE	CS	3/1 gal