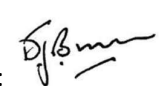


DEVELOPMENT REPORT TEST REPORT	
Report Number:	Viscose Comp- Liquid
Report Title:	Compatibility Testing- Veraco Paper- Continu Disinfectant

Test	To evaluate the efficacy of the Veraco paper wipe in conjunction with Continu Disinfectant	
Product/Component tested	- USL-6002 750ml Spray RTU - Roll Veraco Paper- Centre feed	
Control Item	Wipe test using the Continu pre-saturated 2 in 1 wipes.	
Pass Criterion	- No difference in efficacy performance between Control test and Component Test. - No Critical or non-critical errors found. - No negative interaction between liquid and paper	
Conclusions	The confirmation efficacy test using the Hygiena SystemSURE Plus ATP monitoring system resulted in a full pass, demonstrating that Continu disinfectant, when used with 100% cellulose wipes, effectively reduces microbial contamination on surfaces. This outcome validates the compatibility and effectiveness of the combination under both laboratory and practical conditions	
Issue	Date	Description
Issue 1	14.10.2025	First Release

Review date:	
Signatory	Approved
Author: C Steele Signature:  Print name: CHRIS STEELE	John Woods (MD) 
PRRC: D Broderick Signature:  Print name: DAVID BRODERICK	John Woods (MD) 

1. INTRODUCTION

The Nuview product, 2 in 1 cleaning and disinfectant products have been on the market since 2009 and rigorously tested to all relevant EN Test standards. The purpose of the compatibility test is to determine the effectiveness of the Continu Disinfectant, when used in conjunction with 100% paper wipe form the Veraco, automatic wipe dispenser.

The test was undertaken in three stages. First stage consisted of the set up of the RTU spray. The Liquid spray bottle was used to allow a measure application of liquid. Each spray dispenses 1ml of liquid. The second stage involved testing the Veraco paper product on the dedicated wipe surface, to ensure appropriate reduction of LFU's. An application of 4 sprays was used on the wipe, to emulate the amount of liquid dispensed from the Veraco dispenser. Finally, the tests were re done as a control base line using the Continu pre-saturated 2 in 1 wipes.



Figure 1: Continu 2 in 1 spray & Refill



Figure 2: Veraco 100% Paper Wipe



Figure 3: Dedicated wipe surface for test purposes.

Change History

Issue 1: First Issue

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2. APPLICABLE DOCUMENTS

The applicable documentation relating to the Test can be found in the appendix.

Appendix 1:

- 1 Veraco 100% Paper Wipe Spec
- 2 Continu 2 in 1 Spray SDS

3. METHODS

Samples, consumables and equipment.

- 1 x 750ml Spray RTU
- 1 x Veraco 100% paper Wipe Material
- Continu 2 in 1 pre saturated wipe product
- Hygiena SystemSURE Plus LFU Meter
- Hygiena Ultrasnap surface ATP test swabs
- Hard surface- Test surface
- iPhone- Images

Test Procedure

- Check packaging of samples spray and refill wipe is undamaged.
- Visually inspect sample of Veraco paper wipe to ensure no contamination prior to test.
- Swab pre prepared, contaminated hard surface
- Apply 4 sprays across Veraco wipe sample (4ml)
- Use saturated wipe to clean designated surface
- Swab wiped surface and record change.
- Repeat with Continu pre-saturated PP wipe product.
- Record results in section 4- RESULTS.

Experimental Set Up

Table set up

A room was set up with the replica hard surface- **(See figure 3 in introduction)** and the test products- **(See figures 1 & 2)** The hard surface has been contaminated with salvia prior to participants arrival.

Product Sample set up

The sprays were initially inspected to ensure packaging was complete and that there were no issues to interfere with testing. The devices were present, with the hard surface for the wipe test to commence.

Device Sample set up- Spray RTU

The wipe material was inspected for any contamination prior to use. One sheet was taken from the roll and sprayed with 4 doses across its surface- **See Figure 4**. The surface used for application had been previously wiped and disinfected prior to saturation to avoid contamination during this process. The wipe was then used to wipe the pre contaminated surface. One wipe, from right to left.

Another wipe was used to test integrity and strength. It was left pre saturated for 4 minutes then used on a surface to see any signs of breaking or degradation.

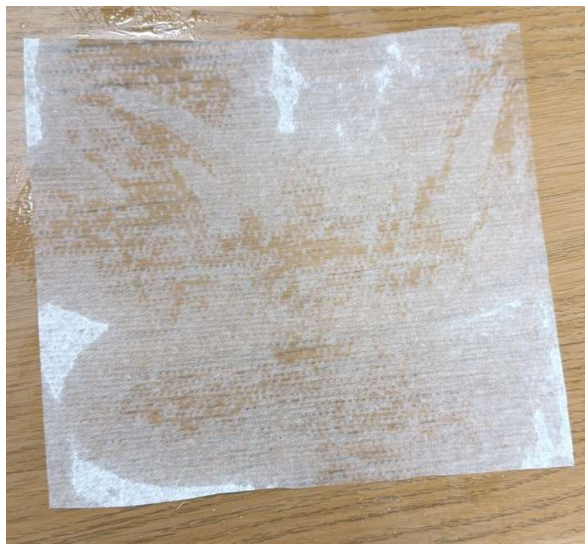


Figure 4: Saturated Veraco Wipe

Test repeat with alternative product

The test was then repeated using the Continu 2 in 1 pre-saturated refill wipes .



Figure 5: Continu 2 in 1 Wipe tub

Swab testing- Prior to wiping

The pre-contaminated hard surface was tested prior to wiping it. After swab was taken, the wipe was saturated as outline and used to disinfect the surface, in one swipe from Right to left.

Swab testing- Post Wiping

Swab testing was the repeated after the application of the wipe to the hard surface. A reduction in the reading to below 10 shows a pass in efficacy of the device and its correct use.

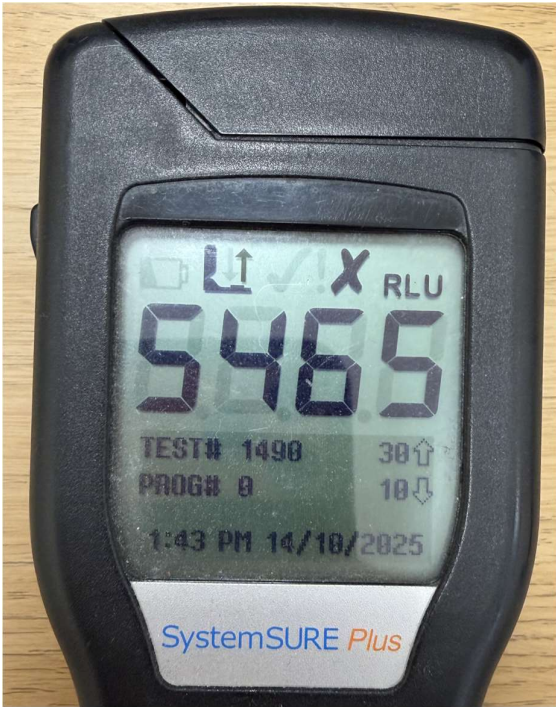
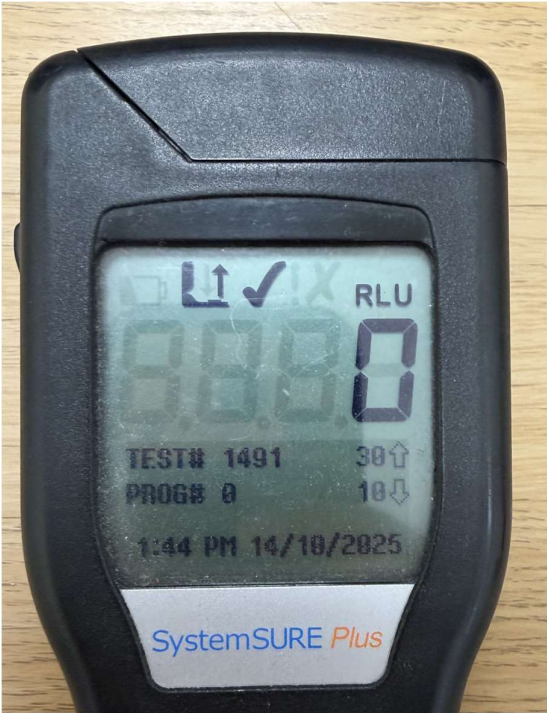


Figure 6: Hygiena SystemSURE Plus meter and Swabs

4. RESULTS

Functionality Testing

To validate the real-world performance of Continu disinfectant with the Veraco 100% cellulose wipes, a confirmation efficacy test was conducted using the Hygiena SystemSURE Plus ATP monitoring system. Surfaces were treated with cellulose wipes saturated with Continu disinfectant, and ATP levels were measured before and after application. The test confirmed a significant reduction in ATP levels, indicating effective microbial control.

VERACO WIPE TEST					
Device:	Continu 2 in 1 Spray RTU with Veraco 100% Paper wipe				
Surface Tested	Date	Initial Reading	Final Reading	Contact Time	Pass/Fail
Hard Surface	14.10.2025	5465	0	1 mins	PASS
SWAB TEST RESULTS					
 The image shows a black handheld SystemSURE Plus device. The LCD screen displays '5465' in large digits, with 'RLU' to the right. Above the digits are icons for a battery, signal strength, and a checkmark. Below the digits, it shows 'TEST# 1490', 'PROG# 0', and the time '1:43 PM 14/10/2025'. The brand name 'SystemSURE Plus' is at the bottom.  The image shows the same black handheld SystemSURE Plus device. The LCD screen displays '0' in large digits, with 'RLU' to the right. Above the digits are icons for a battery, signal strength, and a checkmark. Below the digits, it shows 'TEST# 1491', 'PROG# 0', and the time '1:44 PM 14/10/2025'. The brand name 'SystemSURE Plus' is at the bottom.					

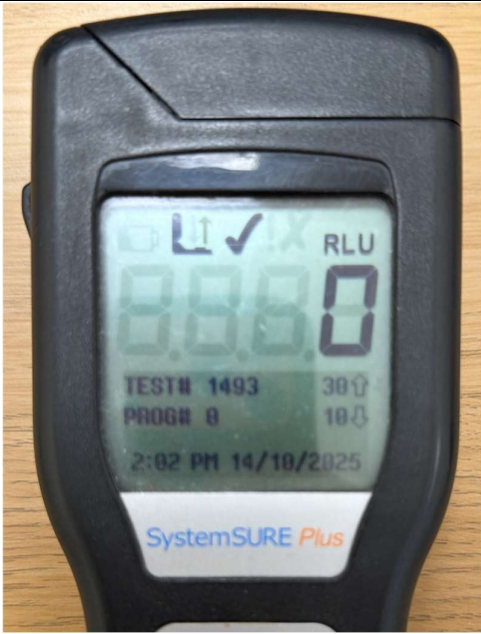
CONTROL TEST					
Device:	Continu 2 in 1 Wipe product				
Surface tested	Date	Initial Reading	Final Reading	Contact Time	Pass/Fail
Hard Surface	14.10.2025	3008	0	1 mins	PASS
SWAB TEST RESULTS					
					

Table 1: Test data summary

5. DISCUSSION

Using Continu disinfectant with 100% cellulose wipes offers a powerful and environmentally responsible solution that aligns directly with Bupa’s sustainability framework. Cellulose is a biodegradable, renewable material that replaces plastic-based wipes, helping reduce landfill waste, microplastic pollution, and carbon emissions. This supports Bupa’s mission for a Healthier Planet, which includes achieving Net Zero across its operations and value chain by 2040, designing greener healthcare systems, and collaborating with partners to reduce environmental impact. It also contributes to Healthy People by promoting safer, low-impact cleaning practices that protect both healthcare workers and patients, and to Healthier Communities by encouraging inclusive, sustainable hygiene solutions that benefit society at large.

By adopting cellulose-based wipes, Continu not only meets rigorous EN 16615 disinfection standards but also contributes meaningfully to Bupa’s vision of a cleaner, healthier, and more sustainable future.

6. REFERENCED STUDIES

Studies have shown that cellulose-based wipes, when properly saturated with disinfectant solutions, can achieve high antimicrobial efficacy under EN 16615 conditions:

- A ResearchGate study demonstrated ≥ 5 log reduction using cellulose wipes with ethanol and quaternary ammonium compounds.
- Byotrol's CHEMGENE MEDLAB wipes, made from 100% biodegradable cellulose, passed EN 16615 testing with excellent results.
- EN 16615 methodology accepts standard wipe materials, including cellulose, as representative of commonly used cleaning textiles

7. CONCLUSION

This document outlines the compatibility of Continu disinfectant with 100% cellulose wipes, based on EN 16615:2015 test results, referenced studies, and a confirmation efficacy test using the Hygiena SystemSURE Plus ATP monitoring system.

According to EN 16615:2015, a disinfectant product must meet the following criteria:

- Achieve ≥ 5 log reduction in bacterial counts on test field 1
- Achieve ≥ 4 log reduction in fungal counts on test field 1
- Mean colony forming units (cfu) on test fields 2 to 4 must be ≤ 50
- Mean cfu of the water control must be ≥ 10

Continu 2 in 1 Antimicrobial Surface Cleaner & Disinfectant (Batch 74845) was tested under dirty conditions using Tork wipes soaked with RTU liquid disinfectant. The product achieved full compliance with EN 16615:2015:

- ≥ 5 log reduction for bacteria (*Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Enterococcus hirae*)
- ≥ 4 log reduction for yeast (*Candida albicans*)
- No cross-contamination observed across fields 2–4
- All validation controls and neutralisation criteria were met

To validate the real-world performance of Continu disinfectant with 100% cellulose wipes, a confirmation efficacy test was conducted using the Hygiena SystemSURE Plus ATP monitoring system. Surfaces were treated with cellulose wipes saturated with Continu disinfectant, and ATP levels were measured before and after application. The test confirmed a significant reduction in ATP levels, indicating effective microbial control.

8. RECOMMENDATIONS

The test was initiated to confirm efficacy and usability of the liquid with the 100% paper based wipe product from Veraco. The device performed as required and no negative issues were found. The wipe after 4 minutes saturation still held up in integrity. Coupled with real life test data and a Valid pass under the EN Test Standard 16615 there are no further recommendations.