

ATP Test (Kikkoman A3) **Guidebook**



*Complete ATP Test Usage Guide for
Cleaning Companies*

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1. What is an ATP Test ?

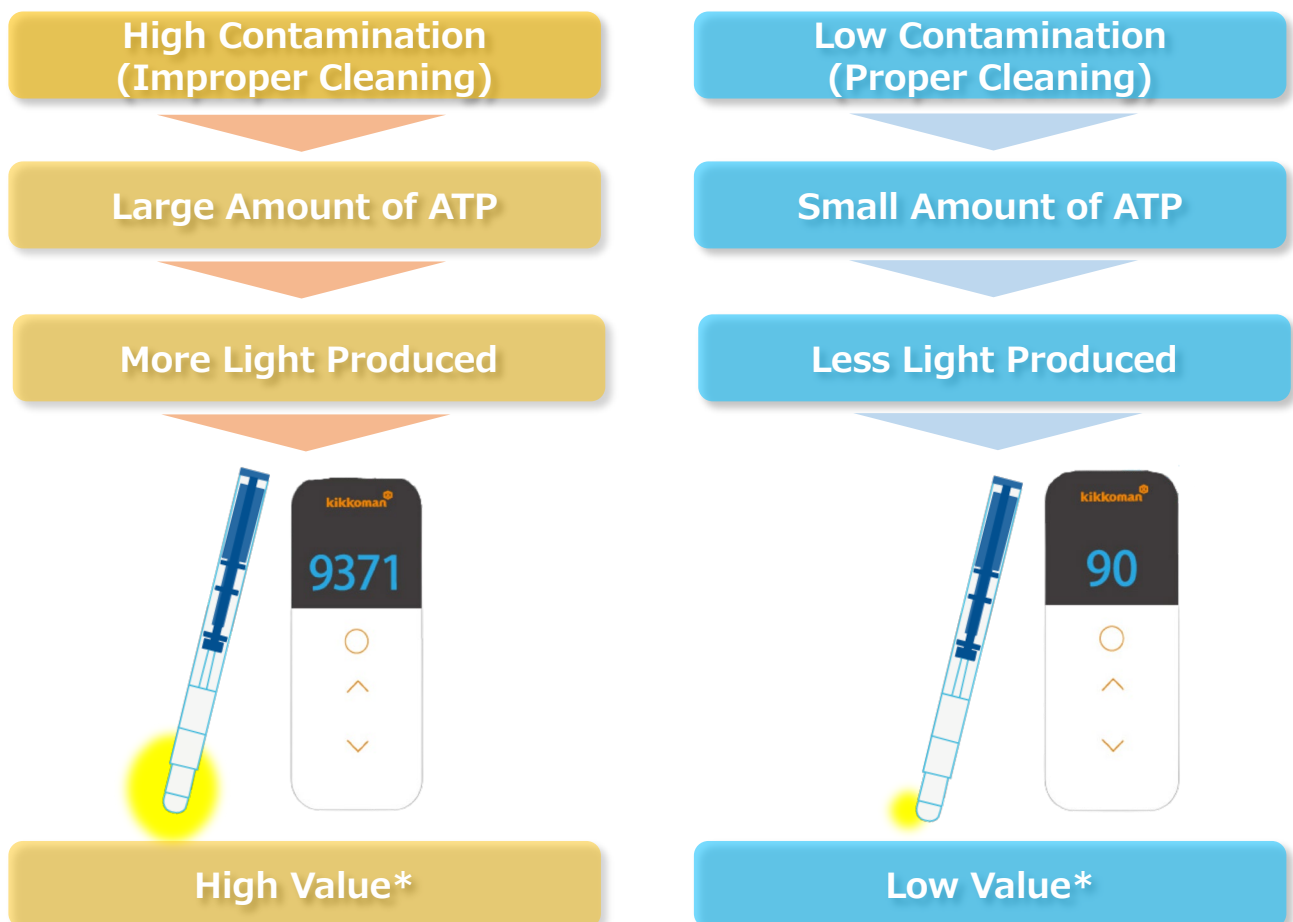
ATP is a rapid test that many cleaning companies use to show that their work is effective and of high quality.

ATP stands for adenosine triphosphate. It is found in all living cells and organic matter that exist on surfaces that haven't been cleaned.

2. What is an ATP test?

An ATP test is used to confirm the cleanliness of environmental surfaces and water.

The reagent reacts with ATP on surfaces that comes from bacteria, pathogens, food particles, and other soil to produce light and the luminometer instrument converts the light into a numerical value.



※The unit of measurement is Relative Light Unit (RLU).

3. What does an ATP test mean for cleaning companies?

An ATP test will help you develop efficient and proper cleaning procedures.

A cleanliness score can be provided to customers as proof of cleaning quality and cleaning staff skills.

Sales and marketing departments can prove cleaning quality to potential customers.

4. Who uses an ATP test in a cleaning company or a facility?

An ATP test is simple and easy to use so anyone can use it.

Cleaning staff can *conduct* ATP tests before and after cleaning to check the level of cleanliness. The results can be shown customers, building occupants, supervisors, and facility managers to *demonstrate that the building has been cleaned*.

ATP results can be used to demonstrate the effectiveness of cleaning procedures, *and the equipment, and cleaning products used*.

ATP results can be used to define an acceptable level of cleanliness. Anyone, including auditors, inspectors, can use ATP tests to evaluate the effectiveness of the cleaning procedures.

5. What is needed for an ATP test?

All you need to prepare are the following two things.



1) Luminometer (Measuring Instrument)

The picture shows the latest model luminometer, the Lumitester Smart.



2) The Reagent for ATP test

This is an all-in-one reagent kit with a stick-shaped swab and reagent built into the main unit. The picture shows LuciPac A3 Series.

Option:

A 5cm x 5cm (2in x 2in) wiping guide template
The template is available on the last page of this guidebook.

Using this wiping guide template helps to ensure consistency in the size of the area that you need to test to get a reliable result.

5. What is needed for an ATP test?

There are 3 different types of swabs available for sample collection.



LuciPac™ A3 Surface

LuciPac A3 Surface is a single-use swab for surface sample collection. The swab is dry initially, and it must be moistened with tap water before collecting the sample.

Shelf life of 15 months.

AOAC

ISCC-PLUS

GBAC STAR



LuciPac A3 Surface (Pre-Moistened)

LuciPac A3 Surface (Pre-Moistened) features pre-moistened swabs for surface sample collection. Immediate use without wetting the swab with tap water.

Shelf life of 12 months.

AOAC

ISCC-PLUS

GBAC STAR



LuciPac™ A3 Water

LuciPac A3 Water is a honeycomb shaped swab to collect and measure water samples.

Sampling volume of 0.15 ml.

Shelf life of 15 months.

ISCC-PLUS

GBAC STAR

6. How to perform an ATP test

1) Prepare in advance

Please read this guide or the manuals provided with the Lumitester Smart, before use.

Select test points for the ATP test.

Remove the LuciPac from refrigerator 20 minutes prior to use to allow to reach room temperature.



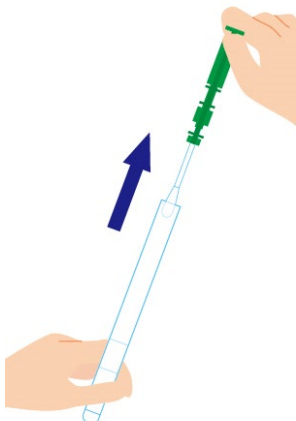
2) Sampling and testing Procedure of LuciPac A3 Surface (Pre-moistened)*



① Turn on the Lumitester

Press and hold the power button for 2 seconds.

It is ready for measurement after count down.

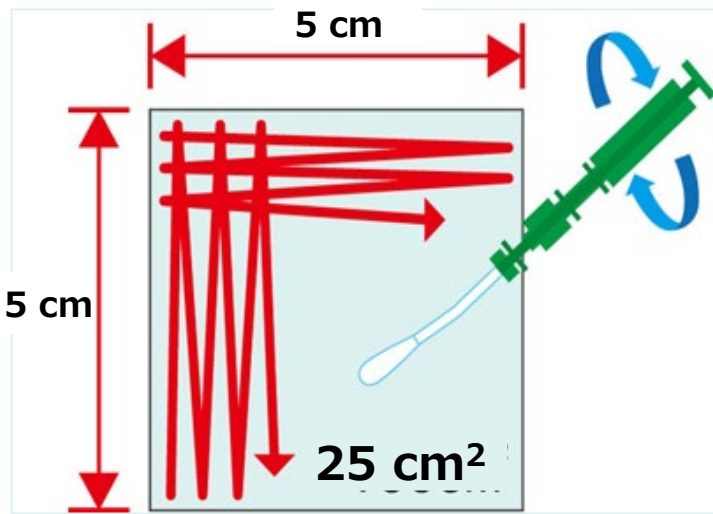


② Remove the swab stick from the main body

With your hand, only touch the colored area (green or blue). Do not touch the white swab with your hand.

* If using the LuciPac A3 surface (dry swab), moisten it with tap water before wiping.

6. How to perform an ATP test (continued)



3) Sampling

Wipe the measurement area with the swab using constant force. Under suitable pressure, the swab shaft will slightly bend.

Getting a hint towards the solution:

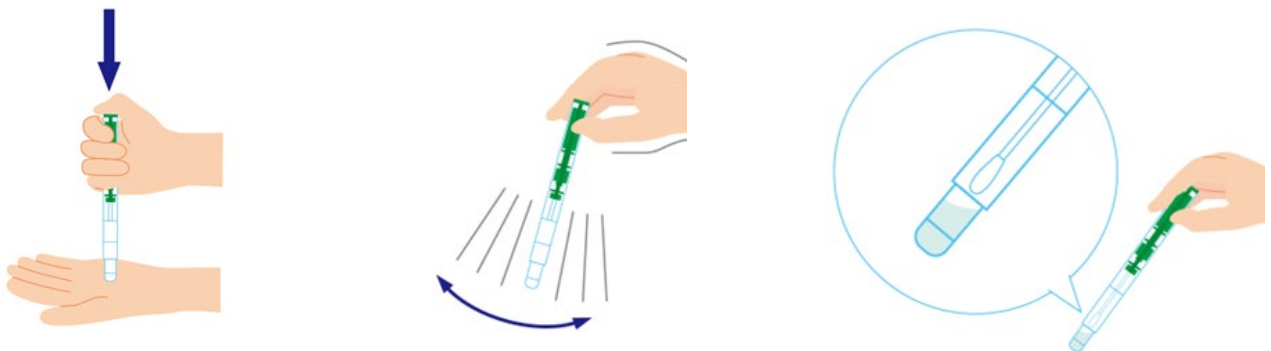
- **Flat surface:**

Swab a **5x 5 cm (2in x 2 in)** area both lengthwise and widthwise ten times.

- **Non-flat surface:**

Swab an equivalent **5x 5 cm (2in x 2in)** area as you would on a flat surface. If the surface is small, then swab the whole area. It's important to swab consistently in the same way.

4) Dissolve the reagent



Return the swab stick to the main body and push it all the way into the main body. Hold the LuciPac body firmly and shake it for at least 10 seconds to ensure the reagent dissolve entirely.

6. How to do an ATP test (continued)

5) Measure with the Lumitester



Open the measurement chamber cover and place the reagent in the chamber. Close the measurement chamber cover and press START. The measurement starts. The measurement result is displayed after a ten second countdown.



OK

※Hold the Lumitester up facing forward during measurement. If the meter is tilted or held *horizontally*, you will not be able to measure correctly.



Remove the reagent from the chamber after measurement.

6. How to perform an ATP test (continued)

6) Keep records

Test points	Industry Standard	After cleaning	1 week later	
Recption desk	> 500			
elevator butteon	> 500			
Wash basin	> 500			

Keeping records of your results is what will give you reliable reporting data to show to colleagues, managers, and customers.

7. What are the ATP standards for a commercial cleaning company?

Test Area	Effective Cleaning	Needs Improvement	Ineffective Cleaning
Office building School Hotel Commercial facilities Convention centers	500 or below	501 to 1,000	1,001 or above
Food Prep areas	①50 or below ②125 or below	①51 to 100 ②126 to 250	①101 or above ②250 or above
	①Smooth surfaces: knives, trays, dishes, etc. ②Uneven surfaces: cutting boards, sieves, etc.		

※Sampling : 5×5 cm (2in x 2in) wiping

If this Standard is too strict, set it at 80% of your ATP measurements and gradually lower it with improvement.

8. What are the key areas to test in the facilities?

The point of doing ATP tests is to check the cleanliness of a surface.

<The key areas>

High touch surfaces: Door nobs, Handrail, Buttons, Switches, Touch panel etc.

Places that get dirty easily: Wash basin, Toilet seat, Kitchen worktop, desk, floor etc.

9. How often should you do ATP tests?

It is important to do ATP tests regularly. For the most reliable results, we on each shift perform ATP tests weekly.

Alternatively, you can perform them monthly, depending on cleanliness results, testing time, and testing resources.

10. How much does ATP tests cost?

The cost is for one LuciPac Surface A3 (pre-moisten) kit (20 x 5 bags) and one-unit Lumitester Smart.

11. Limitations of an ATP test

An ATP test is used to measure cleaning effectiveness. Although bacteria, molds, yeast, all contain ATP, an ATP test is not a direct test for microorganisms or viruses but can show if the cleaning that can remove them has been performed correctly. It can also show that the food residues and other debris that can promote the growth of microorganisms has also been effectively removed. With effective cleaning and measurement with ATP you can reduce risks.

12. Check sheet for setting up ATP testing at your sties

- ☐ Identify measurement points
- ☐ Print out and laminate the 5cmx5cm (2in x 2in) wiping guide template (Appendix2) .
- ☐ Train cleaning staff how to use and record ATP .
- ☐ Make someone responsible for conducting the ATP test regularly per site.
- ☐ Print the measurement sheet(s) and make them available to the person(s) responsible
- ☐ Remove the reagent from the refrigerator 20 minutes before the ATP test.
- ☐ Prepare the Lumitester (Luminometer).

13. Case Study



Andaz Tokyo Toranomon Hills (Mori Hospitality Corporation)

Owned by Hyatt Hotels Corporation.

- 164 rooms in 52 floor 5-star hotel
 - HACCP/ISO22000 for food service
 - GBAC STAR Facility
- Developed Hygiene Program through thorough inspections and establishing standards using comparative data (e.g., PCR, etc.)
 - Selected “High-touch” surfaces throughout the hotel (reception, doorhandles, elevator buttons, etc.)
 - Established 80% threshold for regular testing.
 - Regular testing throughout the hotel to verify cleaning. Spot-checking tests during management walkthroughs.
 - Testing improved cleaning performance >50% in guest and > 90% in common areas.
 - This performance is likely understated as improved cleaning processes resulted in improved cleaning of previously difficult-to-clean surfaces (e.g., wood, rough surfaces).

The initial reference value is set to 5,000 RLU and the second at 10,000 RLU. The future goal is to lower the first threshold to 2,000 RLU, aligning with the handwashing standard recommended by Kikkoman Biochemifa.



13. Case Study



JAPAN AIRLINES

Japan Airlines

Lumitester Smart and LuciPac A3 has been adopted in “JAL FlySafe Program”

Japan Airlines Co., Ltd. regularly inspects the sanitary conditions and infection control measures at all touch points, including airport counters, lounges, and in-flight areas, and uses [ATP Test \(Kikkoman A3\)](#) for cleaning verification.

Japan Airlines Co., Ltd. is the only airline in Japan to have received the highest triple evaluation by an external organization for infection control measures.



The Kikkoman A3 is used to quantify the cleanliness of various places that customers come into contact with.
This is an evaluation of in-flight tables.



Boarding gate Touch & Go Service Evaluate the easy-to-touch area



Screens of touchless check-in KIOSKS and self-baggage drops.



Screens and controllers of the cabin

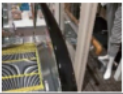


Cleaning the high touched surfaces by customers

13. Case Study



Public cleaning service and utilization of the ATP Test in a “Post-COVID era”

	Before cleaning			After cleaning	
Shopping basket	17626		Cleaning following the tentative specification by material  Confirmation of improvement of the value	751	
Sofa	56120			3105 *Soft material	
Escalator handrail	16140			531	
Toilet seat operation button	3766			996	

- AEON Group is one of the most popular retail groups in Japan.
- AEON Delight is one of their group company providing cleaning service.
- Due to COVID-19, they improved and updated to a New Standard of Cleaning and implemented infection control procedures.
- They applied ATP test for quantitative evaluation, to the quality of cleaning.
- Report shows many examples of actual RLU values taken from environmental monitoring.
- Sheet of “ATP monitoring record” is included.

ATP target sites		ATP value	
		Before Aug, 3 (Mon)	After Sep, 9 (Wed)
Employees break room	Desk	7,834	775 ↓
	Desk	10,548	235 ↓
Checker's break room	Switch of air conditioner	13,513	247 ↓
	Telephone	22,783	4,981 ↓
Dressing room (3F)	Bench	66,282	52,341 →
Food floor room	Printer	13,864	7,808 ↗

13. Case Study



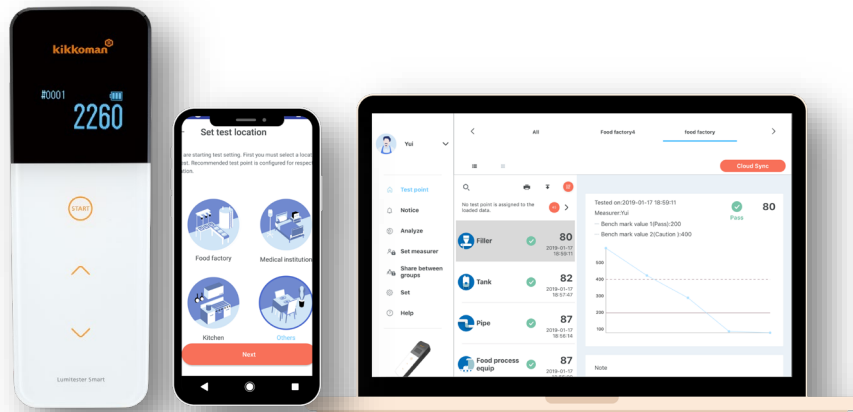
Cleaning for Health Workshop

Sri Sathya Sai Sanjeevani Children's Hospital

- On-site hospital assessment conducted as part of GBACSTAR facility accreditation program.
- Emphasis on microfiber's role in infection prevention and worker safety.
- ATP Test results: 9158 RLU prior to cleaning, decreased to 30 RLU after microfiber cleaning.
- At the workshop this was the first time hospital staff had seen and learned how to use an ATP meter.
- South Pacific's first state-of-the-art pediatric cardiac hospital.
- Proper cleaning practices crucial for infection prevention and control in hospitals.
- Hospital becomes Fiji's first to receive ISSA's GBAC STAR facility accreditation.



14. APP-Lumitester



Automatic management of results and analyze data by using the Lumitester App.

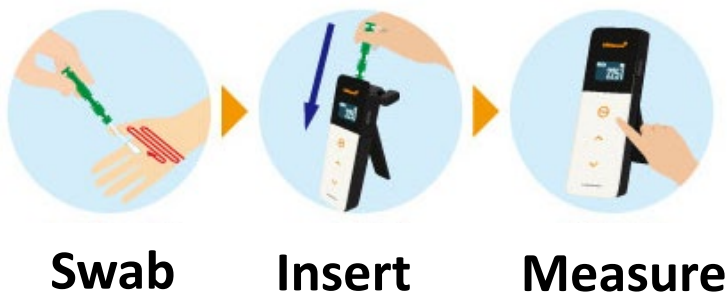


Instantly determine the pass/fail of measurement data

See the results through automatic analysis of measurement data



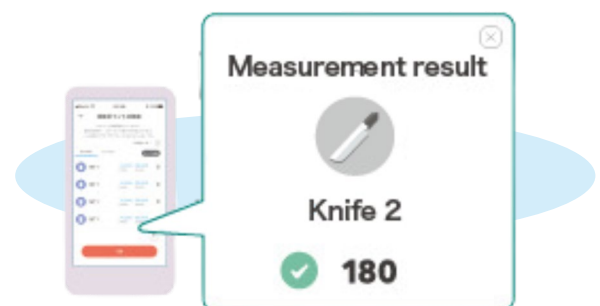
Connect data from other locations through cloud storage



Swab

Insert

Measure

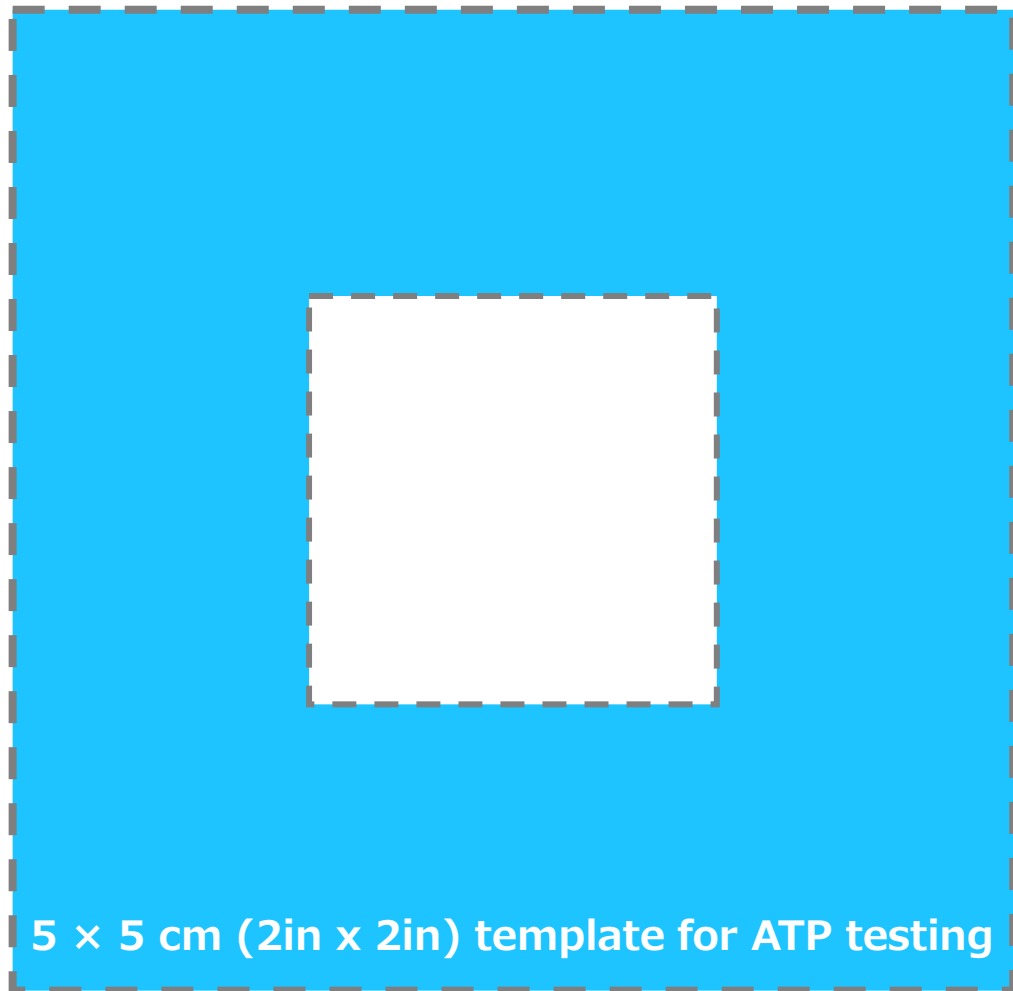


Appendix1: Measurement Sheet

[illegible]

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal blue lines across the entire width of the page. The background is a solid off-white or light gray color. There are no margins, text, or other markings present.

Appendix2: The wiping guide template



Please cut out this template along the dotted line and laminate it so it can be wiped clean between each test for the best results.

Because better detection
equals better protection.

3



Lumitester™

With **A3** Detection

ATP+ADP+AMP

More Reliable and Sensitive

A3 Finds What Others Miss

Rapid

Rapidly verify sanitation processes on-site
Can be used as on-site improvement tool

Simple & Easy

Easy to operate
Usable for anybody

Numerical

Result is displayed as numeric value
Easy to standardize

Accurate

Detects not only ATP, but also ADP and AMP
Finds what other methods miss

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