Protecting Consumers. Improving lab efficiency.

3M™ Petrifilm™ Plates and Reader
This red dot changed microbiology.
Imagine what it can do for your lab.

In today’s environment of heightened focus on food safety and increasingly stringent quality requirements, you want your lab to provide tests that are fast, reliable and consistently accurate. For more than 30 years, food safety professionals around the world have put their trust in 3M™ Petrifilm™ Plates. That’s because these ingenious “little red dots” have streamlined, standardised and simplified the process of microbial quantitative indicator testing, improving productivity and helping ensure the highest levels of product quality.
Maximise productivity

Plates are sample-ready, eliminating the time-consuming, cumbersome step of preparing agar dishes. Plus, plates such as the E.coli/Coliform Count and Staph Express Count plates go even further by eliminating the need for a subsequent confirmation step required with traditional agar methods. In a study conducted with 292 food-processing plants, companies increased their QA personnel efficiency by an average of 80.5%, saving an average of 3.7 hours per day of technician time by using 3M™ Petrifilm™ Plates.

Improve consistency

Compared to the variability associated with agar preparation, 3M’s standardised formula improves consistency across technicians, shifts and plants – worldwide. Each lot of Petrifilm plates goes through rigorous quality testing at our ISO 9001 certified manufacturing facility. This reduces the need for lot qualifications in operations making their own agar. More than 200 evaluations from peer-review publications and validating agencies worldwide have confirmed the consistent results of Petrifilm plates.¹

Easy to use

The simplicity and ease of use of Petrifilm plates make it easy to train technicians. Now they can learn – and succeed – starting with their very first test.

Space saving

Space is at a premium in the laboratory environment. That’s why Petrifilm plates are designed to be as compact and efficient as possible. The shelf-stable, thin design takes up 85% less space than agar dishes, freeing incubator and storage space and significantly reducing biohazardous waste.

¹Data on file
**Simply productive.**

**Fast, easy-to-interpret results.**

Each 3M™ Petrifilm™ Plate contains a water-soluble gelling agent, nutrients and indicators — all the components needed for microbial growth — with no preparation required.

**Three simple steps to improved analysis with Petrifilm plates.**

1. **Inoculate**
   Petrifilm plates are easily inoculated. No media preparation is required.

2. **Incubate**
   A compact incubator is all you need with Petrifilm plates.

3. **Interpret**
   Simply count the colonies. Indicator dyes facilitate interpretation.

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**Lab Technician Labour Hours**

In a study conducted with 292 food processing plants, the average number of technician hours needed for indicator testing was reduced from 40 hours per week for the traditional agar process, to 22 hours per week when implementing Petrifilm plates.

- **Agar Method**
- **Petrifilm**

![Bar chart showing hours saved](chart.png)

<table>
<thead>
<tr>
<th>Hours / Week</th>
<th>Agar Method</th>
<th>Petrifilm</th>
</tr>
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<tbody>
<tr>
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**Easy, fast and accurate water testing compatible with membrane filtration.**

- **Aqua Heterotrophic Count**
  An indicator dye colours colonies red. Count all red colonies regardless of size or colour intensity. Membrane filtration or 1 mL direct plating. Results in 48 hours.

- **Aqua Coliform Count**
  An indicator dye in the plate colours colonies red and the top film traps gas produced by colonies. Results in 24 hours.

- **Aqua Yeast and Mold Count**
  An indicator dye in the plate colours yeast colonies blue-green. Mold colonies become variably coloured. Results in 3 to 5 days.

- **Aqua Enterobacteriaceae Count**
  An indicator dye in the plate colours colonies red. Count all colonies with yellow zones; gas bubbles; or yellow zones and gas bubbles. Results in 24 hours.
Simply comprehensive.

A plate for almost any kind of count.

Rapid Aerobic Count
An indicator system in the plate colours colonies that facilitates enumeration, starting from 24 hours, for most food matrices / environmental samples and resists distortion caused by spreader colonies.

Rapid Yeast & Mold Count
An indicator dye in the plate colours yeast colonies blue. Mould colonies become variably coloured. Results starting in just 48 hours.

Rapid Coliform Count
An indicator dye in the plate colours colonies red with yellow acid zones. Early coliform results within 6 to 14 hours. Final results in 14 to 24 hours.

Aerobic Count
An indicator dye in the plate colours all colonies red. Results in 48-72 hours.

Coliform Count
An indicator dye in the plate colours coliform colonies red and the top film traps gas produced by colonies. Results in 24 hours.

E.coli/Coliform Count
An indicator system in the plate colours E.coli colonies blue and Coliform colonies red, while the top film traps gas. Results in 24 to 48 hours.

Enterobacteriaceae Count
An indicator dye in the plate colours colonies red. Count red colonies with yellow zones, red colonies with gas bubbles and red colonies with yellow zones and gas bubbles. Results in 24 hours.

Select E.coli Count Plate
The indicator system in the plate, allows the differentiation of E.coli strains from other organisms. The indicator dye in the plate colours E.coli colonies dark green to blue-green. Results in 24 hours.

High-Sensitivity Coliform Count
Designed to accommodate 5ml. One Petrifilm High-Sensitivity Coliform Count plate, at a 1:5 dilution, takes the place of three standard pour plates for 1 CFU/gram testing. An indicator dye in the plate colours coliform colonies red and top film traps gas produced by colonies. Results in 24 hours.

Staph Express Count
An indicator dye in the plate typically colours S. aureus red-violet. Results in 24-28 hours.

Environmental Listeria
An indicator dye in the plate colours target Listeria colonies red-violet. Results in 28 hours.

Yeast & Mold Count
An indicator dye in the plate colours yeast colonies blue-green. Mould colonies become variably coloured. Results in 5 days.
3M™ Petrifilm™ Plate Reader
Automated reading you can rely on.

This compact, desktop unit accurately reads and records plate counts, saving critical time to further improve your productivity. It processes the five most common plate tests: Aerobic Count, Coliform Count, E.coli/Coliform Count, Enterobacteriaceae Count and Select E.coli Count. The software stores data in a secure log file to enable 21 CFR Part 11 compliance, and exports data to spreadsheets or text files for importing to LIMS databases.

- Fast results in just four seconds per plate
- Eliminates variation between technicians
- Reduces the chance for human error
- Reads bar coded labels
- Improves data management
- Allows for archiving of colour images
Simply reputable.

Trusted by 91 of the top 100 U.S. food companies.²
Validated around the world.

Make your processes more efficient and standardised by using the same technology that major food companies around the globe are relying on today.

Precise, consistent results.
More than 200 validating agencies and peer-review publications.³

NF validation by AFNOR certification in accordance with ISO 16140 ⁴
AOAC® International – Official Methods of AnalysisSM
AOAC® International – Research InstituteSM
Numerous regional and local approvals

² According to FoodProcessing.com – Food Processing’s Top 100; ³Validations may vary by plate and region;
Connect the dots. End-to-end solutions.
With more than 30 years of global experience in the food and beverage industry, 3M’s Food Safety business offers a full line of products that work together for consistent, reliable results. Find out more at www.3M.com/foodsafety.

The fascinating story behind the little red dot.
3M™ Petrifilm™ Plates began with one microbiologist’s curiosity and collaboration with other scientists, which in turn led to new discoveries that evolved into one of the world’s leading brand of food indicator testing. Learn more at www.3M.com/3MPetrifilmStory.