

3M Food Safety  
3M™ Petrifilm™ Products

# Reducing Costs



# Increasing Operational Efficiency



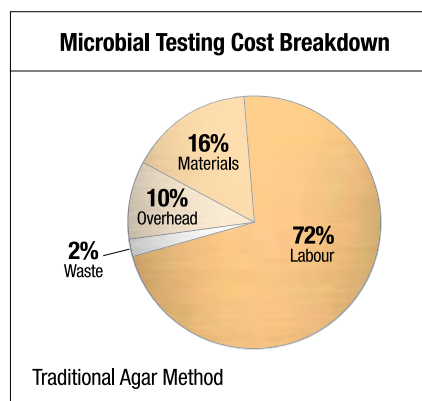
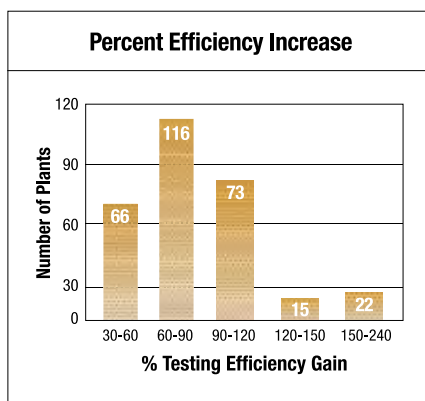
Supplied by



# 3M™ Petrifilm™ Count Plates

Petrifilm count plates are designed to improve testing efficiency and reduce operational costs versus traditional methods, helping contract and in-house laboratories increase productivity and profitability.

It is widely considered that labour is one of the most significant factors in the cost of traditional microbial testing. The ready to use format of Petrifilm count plates can greatly reduce the labour time involved in traditional testing, saving valuable laboratory hours and freeing technicians to undertake other testing. In an industry study conducted with 292 food processing plants, companies saved an average of 3.7 hours per day of technician time and all improved testing efficiency by using Petrifilm count plates.<sup>1</sup>



1. Study information is available on request.

## What benefits can Petrifilm count plates offer you?

### Labour time and cost savings

- Ready to use format requires no media preparation and simplifies quality control, saving time and money
- Use of Petrifilm count plates can increase technician efficiency, allowing increased testing and improving overall profitability
- The compact format of Petrifilm count plates requires less storage and incubator space than petri dish/agar methods and produces less waste, in turn reducing autoclave and associated waste costs

### Consistent and accurate results

- Simple format reduces variability between technicians
- Simple to read plates. Enumeration of colonies made easy by grid system

### Quality Control

- Only a single test of each batch of Petrifilm count plates is required for laboratory auditing purposes providing QC certificates are kept for traceability

### Safety aspect

- No media preparation required
- No breakages as Petrifilm count plates are paper based
- Can visually see if count plate has growth - no need to open

### Long shelf life

- The long shelf life of Petrifilm count plates virtually eliminates the need for media stock rotation - effectively no wastage and greater flexibility

### User friendly

- Easy to use; simply inoculate, incubate and read

### Global knowledge, local technical support

- High levels of technical support from initial and refresher training to help with validation/accreditation work including on-going technical support

Most food products sold to consumers in the UK can be tested with 3M™ Petrifilm™ Count Plates with additional use in other applications such as the packaging industry for air sampling.

### Quality Assurance Certified

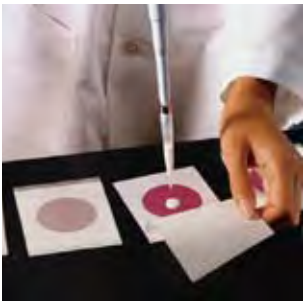
- Each case of Petrifilm count plates comes complete with a Quality Assurance Certificate from 3M's ISO 9002 certified manufacturing facility

### Available throughout the world

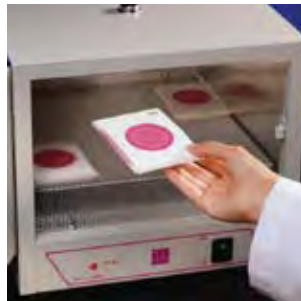
- Sold to over 70 countries worldwide

### Approved globally

- Globally acknowledged by major national and international validation schemes



Inoculate

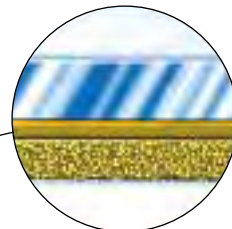
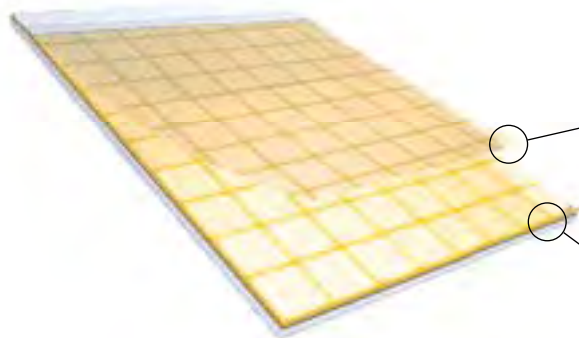


Incubate



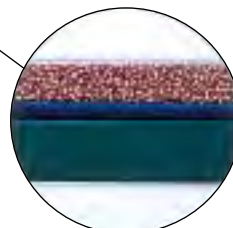
Read

### Example of Petrifilm count plate structure



#### Top Film

Plastic film coated with adhesive, indicator and cold-water soluble gel.



#### Bottom Film

Plastic paper printed with a grid, adhesive, standard methods nutrients and cold-water soluble gel.

The prominent grid helps to estimate high counts

Petrifilm count plates are AFNOR validated to ISO 16140, Nordval validated and AOAC accredited - contact 3M for an up to date listing of the validations for each plate.

## 3M™ Petrifilm™ Count Plate range

### Petrifilm Aerobic count plate

- Enumeration of Total Aerobic Count
- Red indicator facilitates easier counting
- 48hr and 72hr methods

### Petrifilm *E.coli* and Coliform count plate

- Two tests in one, enumeration of *E.coli* and coliforms
- Contains a  $\beta$ -glucuronidase indicator for detection of *E.coli*
- Coliform result in 24hrs, *E.coli* result in 48hrs



### Petrifilm Select *E.coli* count plate

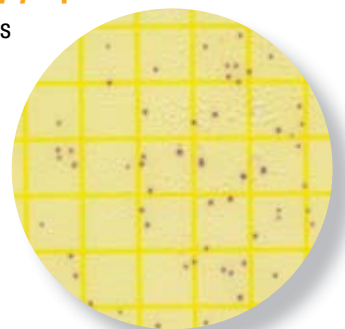
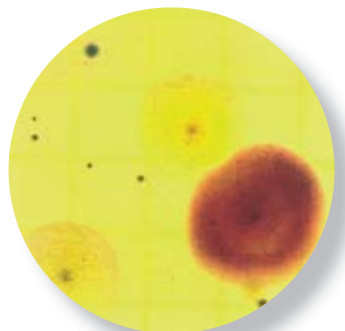
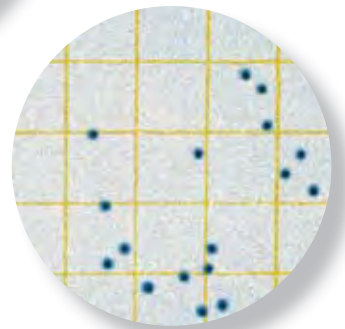
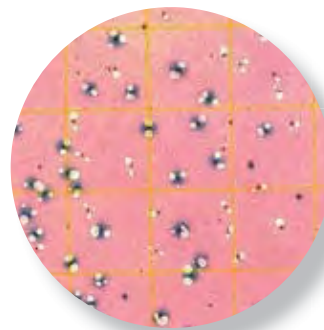
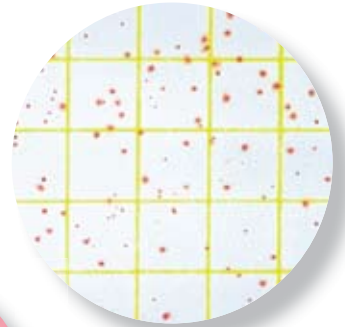
- Specific test for just *E.coli*, only *E.coli* colonies are visible
- Contains a  $\beta$ -glucuronidase indicator
- Results in 24hrs

### Petrifilm Yeast and Mould count plate

- Enumeration of yeast and mould population
- Requires no addition of antibiotics
- Results in 3 to 5 days

### Petrifilm Environmental *Listeria spp.* plate

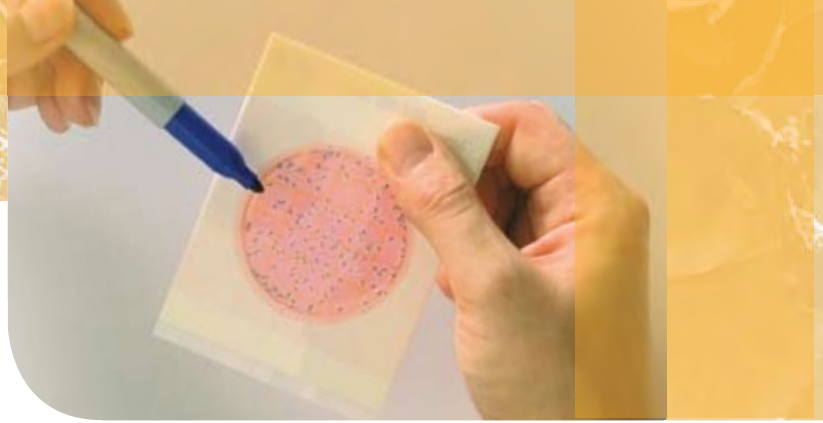
- Detection of *Listeria spp.* in environmental samples
- No enrichment required
- Provides quantitative, semi-quantitative and qualitative results in 26-30 hrs



Quality,  
Productivity  
and Profitability

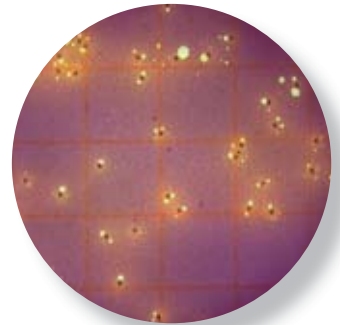


# 3M™ Petrifilm™ Count Plate range



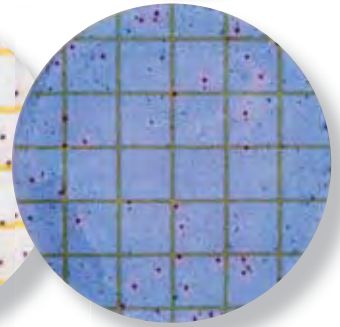
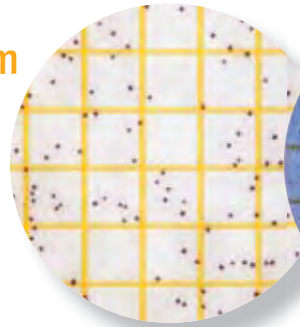
## Petrifilm Enterobacteriaceae count plate

- Enumeration of Enterobacteriaceae
- Acid production by colonies is indicated by a pH indicator which turns yellow
- Upper film traps gas produced by lactose fermentation
- Results in 24hrs



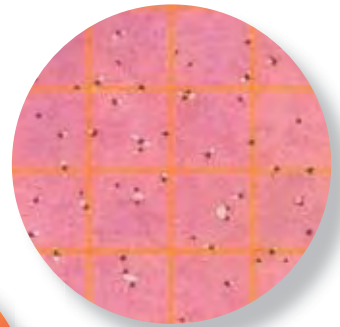
## Petrifilm Staph Express count system

- Enumeration of *Staphylococcus aureus*
- One or two step analysis (DNase reaction for additional confirmation with second step)
- Results in 24 to 27hrs



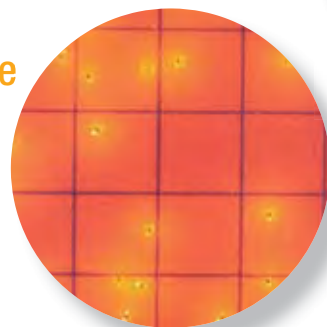
## Petrifilm Coliform count plate

- Enumeration of coliforms (total or thermotolerant)
- Upper film traps gas produced by lactose fermentation
- Results in 24hrs



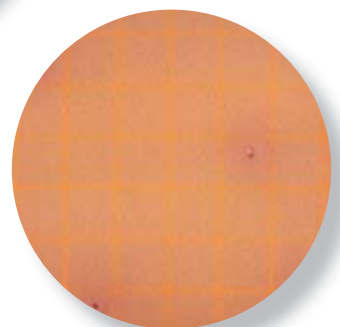
## Petrifilm Rapid Coliform count plate

- Rapid enumeration of coliforms
- Very sensitive pH indicator reveals production of acid by growing colonies
- Indication of counts as early as 8hrs
- Final results in 24hrs



## Petrifilm High-Sensitivity Coliform count plate

- Enumeration of small numbers of coliforms (less than 1 or 2 per gram)
- Inoculation of 5ml of sample or dilution of it
- Reading advantages (colour and gas) identical to Petrifilm Coliform count plate
- Results in 24hrs



# 3M™ Petrifilm™ Plate Reader and 3M™ Petrifilm™ Count Plates

## Bringing fast, accurate and reliable results

- Easy and fast to use, up to 4 seconds from the count plate insertion in the reader to data stored into a Microsoft® Excel® worksheet or database
- Mapping capability enables transfer of specific data into new or existing Microsoft® Excel® spreadsheets to create customised reports

## Fast and automated reading

- Increase productivity by speeding up sample reading, the Petrifilm plate reader reads Petrifilm count plates in 4 seconds or less<sup>1</sup>
- The system can read 128 Symbology bar code labels to provide fast, automatic input of count plate information



## Easy to use

- Displays results and a colour image of the count plate on the computer screen, marking the colonies for easy verification
- The full colour image of the count plate can be saved and archived for later use
- Software automatically calculates counts based on the dilution entered for quick results

## Ergonomic Design

- Compact unit takes up minimal space and is easy to store when not in use
- Minimal count plate handling - the Petrifilm count plate automatically feeds in and out of the Petrifilm plate reader
- Red and green LED lights on front of unit indicate when system is ready to read next count plate
- Rubber pads on top and bottom of unit provide versatility for right or left-handed users
- Door on front of reader provides easy access for cleaning

Consistency,  
Accuracy  
and Reliability

1. Based on using system requirements specified

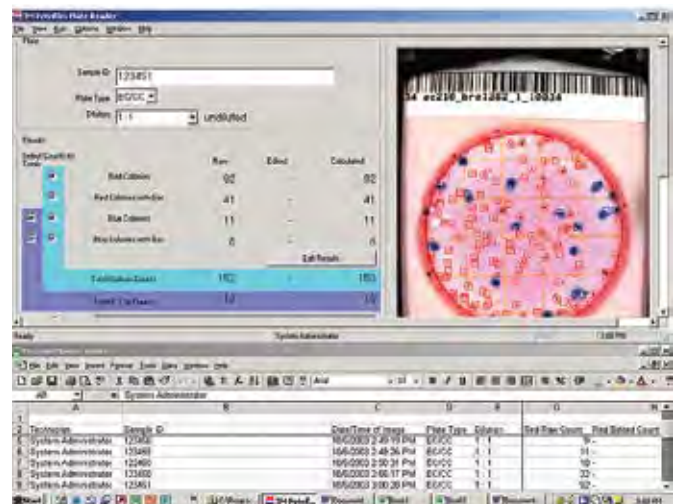


## Accurate Results

- The 3M™ Petrifilm™ Plate Reader software is fully Microsoft® Windows® compatible
- Access can be controlled by secure user ID and password options for audit purposes
- Automatic data transfer into Microsoft® Excel® worksheet or LIMS reduces possibility of transcription errors
- Full FDA CFR Part 11 compliant software - a secure log file provides a historical record of data

## Current compatible Petrifilm count plates are:

- 3M™ Petrifilm™ Aerobic Count Plate
- 3M™ Petrifilm™ Select *E. coli* Count Plate
- 3M™ Petrifilm™ Coliform Count Plate
- 3M™ Petrifilm™ *E. coli* and Coliform Count Plate
- 3M™ Petrifilm™ Enterobacteriaceae Count Plate

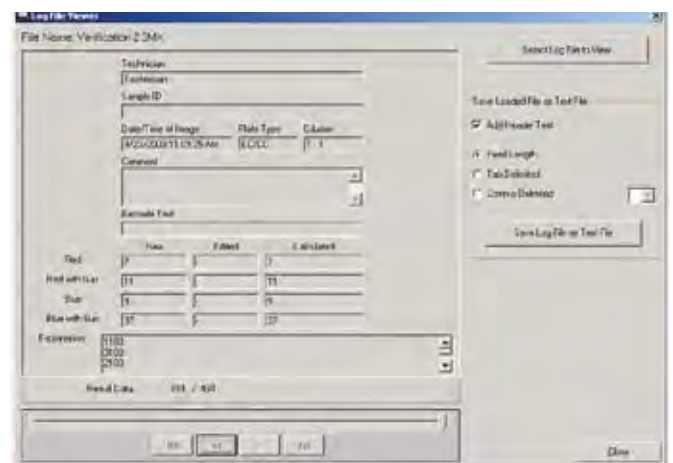


## Additional information

- Microsoft® Windows® based CD-ROM software installs on a PC using the wizard to assist on installation - reducing the need for IT assistance.
- Full instructions for use contained on CD-ROM
- System verification card included for easy daily/shift confirmation of calibration

## System requirements

- Microsoft® Windows® 2000/XP
- Microsoft® Excel® 2000 or higher (for use of worksheet option)
- USB 2.0 port
- 256 MB RAM
- CD-ROM drive
- 1.5 GHz CPU
- 5 GB disk for data and image archiving





Contact Customer Services on 01509 613191

## Ordering Information

Catalogue No.	Name/Product	Description / Original Pack Size
6400	Petrifilm Aerobic count plate	Box of 100 units / (2 pouches of 50 units + 1 spreader)
6406	Petrifilm Aerobic count plate	Box of 1000 units / (20 pouches of 50 units + 1 spreader)
6410	Petrifilm Coliform count plate	Box of 50 units / (2 pouches of 25 units + 1 spreader)
6416	Petrifilm Coliform count plate	Box of 1000 units / (40 pouches of 25 units + 1 spreader)
6404	Petrifilm E. coli and Coliform count plate	Box of 50 units / (2 pouches of 25 units + 1 spreader)
6414	Petrifilm E. coli and Coliform count plate	Box of 500 units / (20 pouches of 25 units + 1 spreader)
6434	Petrifilm Select E. coli count plate	Box of 50 units / (2 pouches of 25 units + 1 spreader)
6435	Petrifilm Select E. coli count plate	Box of 500 units / (20 pouches of 25 units + 1 spreader)
6407	Petrifilm Yeast and Mould count plate	Box of 100 units / (2 pouches of 50 units + 1 spreader)
6417	Petrifilm Yeast and Mould count plate	Box of 1000 units / (20 pouches of 50 units + 1 spreader)
6405	Petrifilm HSCC* plate	Box of 50 units / (2 pouches of 25 units)
6415	Petrifilm HSCC* plate	Box of 500 units / (20 pouches of 25 units)
6481	Petrifilm HSCC* spreader	Box of 2 units
6420	Petrifilm Enterobacteriaceae count plate	Box of 50 units / (2 pouches of 25 units + 1 spreader)
6421	Petrifilm Enterobacteriaceae count plate	Box of 1000 units / (40 pouches of 25 units + 1 spreader)
6402	Petrifilm Rapid Coliform count plate	Box of 50 units / (2 pouches of 25 units + 1 spreader)
6412	Petrifilm Rapid Coliform count plate	Box of 500 units / (20 pouches of 25 units + 1 spreader)
6490	Petrifilm Staph Express count plate	Box of 50 units / (2 pouches of 25 units)
6491	Petrifilm Staph Express count plate	Box of 500 units / (20 pouches of 25 units)
6492	Petrifilm Staph Express disk	Box of 20 units / (1 pouch of 20 units)
6493	Petrifilm Staph Express disk	Box of 100 units / (5 pouches of 20 units)
6425	Petrifilm Staph Express spreader	Box of 2 units
6447	Petrifilm Environmental Listeria plate	Box of 50 units / (2 pouches of 25 units)
6448	Petrifilm Environmental Listeria plate	Box of 200 units / (8 pouches of 25 units)
6498	Petrifilm Environmental Listeria spreader	Box of 2 units
6499	Petrifilm plate reader	Box of 1 Unit
6499S	Petrifilm plate reader stand	Individual Unit
6502E	'E' Pipettor - 1ml	Individual Unit (3M electronic pipettor)
6503E	'E' Pipettor - 5ml	Individual Unit (3M electronic pipettor)

\* HSCC High Sensitivity Coliform Count



**Supplied by:**



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