Family Brochure

Peel Plate®

Customer Testimonial

"Charm Peel Plate Microbial Tests are simplified culture methods. Charm Peel Plates have provided exceptional benefits to our manufacturing plant. The ease of use was a must have for us. We were able to teach plant operators, who have no lab background, how to dilute and properly plate, incubate, and read samples without having to hire additional staff. Now, we can plate our samples, wait the short period for the results, and package or immediately implement corrective actions. The plates have saved us significant time and money."

-Annette C.
Simmons Grain Co.

Charm® Peel Plate® Microbial Tests

Simplified Culture Method For Detecting Microorganisms

CHARM SCIENCES INC

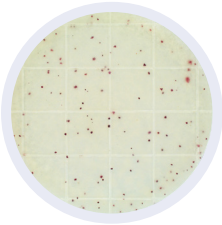
NOTHING WORKS LIKE A CHARM

Introduction

Charm Peel Plate Microbial Tests are simplified culture methods for detecting microorganisms. AOAC-RI granted performance tested method status to Charm Peel Plate AC, EC, and YM tests. The Peel Plate EB Microbial Test received MicroVal certification harmonized with AOAC Official Method of Analysis First Action Status. The methods follow conventional microbiologic procedures for time and temperature of incubation. An air gap between the plate and cover allows colony picking and determination of microbial morphology. Peel Plate tests are for use in dairy products, ground meats, other foods, contact environmental surfaces, and water. There are 1 mL sample volume Peel Plate tests for aerobic bacteria (Peel Plate AC test), heterotrophic count (Peel Plate HET test) and Staphylococcus Aureus (Peel Plate SA test). There are 1 mL and 5 mL (High Volume) tests for coliform count (Peel Plate CC test), coliforms/*E. coli* (Peel Plate EC test), enterobacteriaceae (Peel Plate EB test), and yeast and mold (Peel Plate YM test).

Each version of these tests contains non-selective or selective medium with color producing enzyme substrates to produce visible colonies.

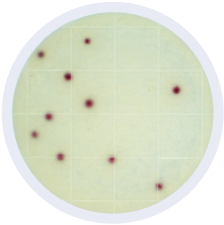
Charm Peel Plates



Charm Peel Plate AC Microbial Test

(Aerobic Count) use conventional standard plate count formulation with red producing TTC enzyme substrate. Aerobic bacteria produce red colonies.

- Improved anti-spreader formulation
- Improved detection of aerobic bacteria
- Applicable for use with LPC testing
- Approved for use with NCIMS/PMO and FDA 2400
- Performance Test Validated for 15 food and dairy matrices AOAC-RI 071501

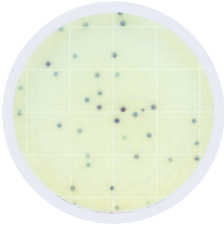


Charm Peel Plate CC Microbial Test

(Coliform) use conventional EC media with color producing enzyme substrates and produce easy to interpret red colonies.

- Recovers 25% more coliform bacteria strains than competing methods
- No gas/acid interpretation required
- Approved for use with NCMIS/PMO and FDA 2400

A Peel Plate CC Microbial Test for Cultured Dairy is also available. High Volume versions are available for 5 mL samples.

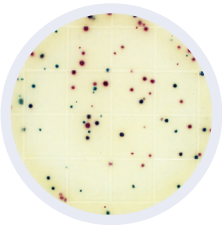


Charm Peel Plate SA Microbial Test

(Staphylococcus aureus) use conventional Baird Parker Agar formulation with dark purple producing enzyme substrate. Staphylococcus aureus produce purple colonies larger than a pinpoint and may contain white centers.

- Incubate 48 hours for confirmation of presumptive positive (no overlay required)

A Peel Plate SA Microbial Test for Cultured Dairy is also available. High Volume versions are available for 5 mL samples.

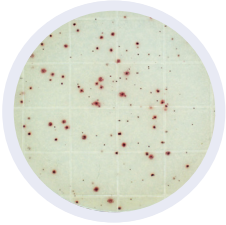


Charm Peel Plate EC Microbial Test

(*E. coli* and Coliform) use conventional EC media with color producing enzyme substrates. Coliforms produce easy to interpret red colonies. Generic *E. coli* produce blue/purple colonies.

- Approved for use with NCIMS/PMO and FDA 2400
- Performance Test Validated for 15 food and dairy matrices AOAC-RI 061501

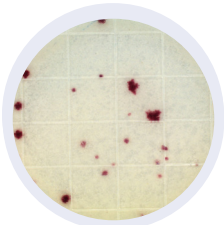
A Peel Plate EC Microbial Test for Cultured Dairy is also available. High Volume versions are available for 5 mL samples.



Charm Peel Plate HET Microbial Test

(Heterotrophic Count) use conventional R2A formulation with red producing TTC enzyme substrate. Heterotrophic bacteria produce red colonies.

- Improved detection of heterotrophic bacteria



Charm Peel Plate Y Microbial Test

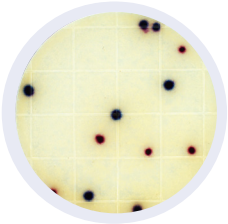
(Yeast) use media containing selective agents and dyes to produce dehydrogenase enzymes, which react with a redox indicator to produce red or pink colored colonies.

- Suppresses mold growth to select for yeast colony growth only, particularly for use in foods naturally containing molds, i.e. bleu cheese.

Peel Plate Colony Counter

Save time counting plates with Charm's Peel Plate Colony Counter II! This stand-alone unit provides valuable data tracking software and easily connects and imports to an existing SQL (or compatible) database. The unit takes a photo of the plate and counts and reports the number of colonies present. Raw and processed images are saved as .jpg files and can be exported with the data to a .csv file.

Want to learn how you can strengthen your sanitation and hygiene monitoring programs? Contact us today for a free consultation.

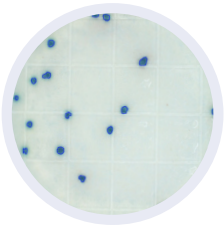


Charm Peel Plate EB Microbial Test

(Enterobacteriaceae) use conventional EB formulation and produce colored colonies.

- MicroVal and AOAC OMA 2018.05 approved for specific food matrices in applicable industries
- No gas/acid interpretation required
- Validated for relevant, industry specific matrices

A Peel Plate EB Microbial Test for Cultured Dairy is also available. High Volume versions are available for 5 mL samples.



Charm Peel Plate YM Microbial Test

(Yeast and Mold) use conventional Potato Dextrose Agar (PDA) formulation and produce blue/green colonies.

- Contains antibiotic to suppress growth of bacteria
- Performance Test Validated for 8 food matrices AOAC-RI 061601

High Volume versions are available for 5 mL samples.

Benefits of Charm Peel Plate Microbial Tests

- **Ready-to-use. Just add sample dilution. No spreading device needed.**
- **Etched grid lines for estimated counts.**
- **Colonies easily picked for additional isolation/classification.**
- **Convenient plate stacking for improved air circulation.**
- **Buffered formulation – pH adjustment not required for most samples.**
- **12 month room temperature or refrigerated shelf-life in a resealable foil zip bag.**

Procedure

The tests are prepared media in a shallow dish with an adhesive top. Just add the sample to the middle and it diffuses through the media and solidifies. Invert the test, stack multiple tests together (if appropriate), and incubate. The Peel Plate tests are intended for microbiological laboratories, but may also be used by food quality stakeholders such as farmers, milk processors, and water municipalities.

Simple procedure with clear and accurate results:

Peel

Vertically Pipet
within 2 to 3 seconds

Seal

Incubate
at specified temperature and times.

Time and incubation:

	AC	CC	EB	EC	HET	SA	YM
Time	48 ± 3 hr	24 ± 2 hr	24 to 48 hr	24 ± 2 hr	5 to 7 days	24 to 48 hr	3 to 5 days
Temperature							
Dairy	32 °C ± 1°	32 °C ± 1°	37 °C ± 1°	32 °C ± 1°	N/A	35 to 37 °C	25 °C ± 3°
Water	N/A	N/A	N/A	35 °C ± 1°	20 to 28 °C	N/A	N/A
Other Products	35 °C ± 1°	35 °C ± 1°	37 °C ± 1°	35 °C ± 1°	N/A	35 to 37 °C	25 °C ± 3°

Sanitation Verification Tools

PocketSwab® Plus ATP Test & novaLUM® II-X System

Charm's Integrated Sanitation Monitoring uses ATP and Peel Plate tools for cleaning verification. It empowers food facilities to take action against hygenic threats and prepares the facility to meet compliance regulations. There is an increased focus in the food industry on food-safety monitoring. Food manufacturers, processors, packagers and handlers must identify safety hazards and adapt process controls to reduce the risk of hazards. Cleaning is a universal process control in food manufacturing. Charm provides tests that are fast and reliable for cleaning verification, prevention of cross-contamination, and infection control. Charm tests help industries meet 3rd party and process control documentation requirements.

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MRK-1052-009 Oct-2021

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