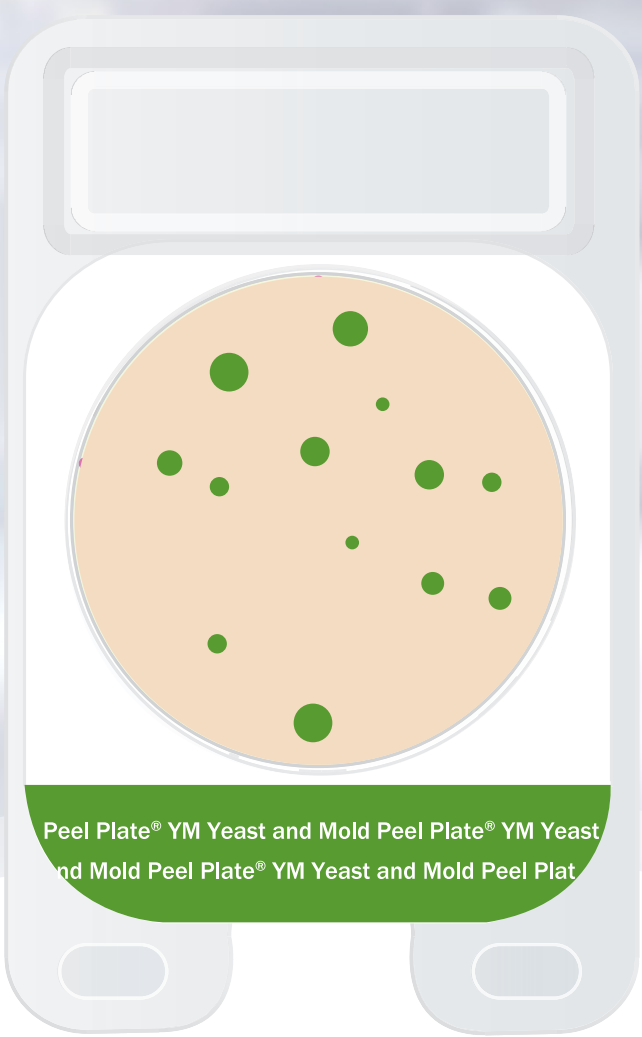
PeelPlate® YM
YEAST AND MOLD



Interpretation Guide

An introduction to using and interpreting results for Peel Plate® YM Microbial Tests.

CHARM SCIENCES INC
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Introduction

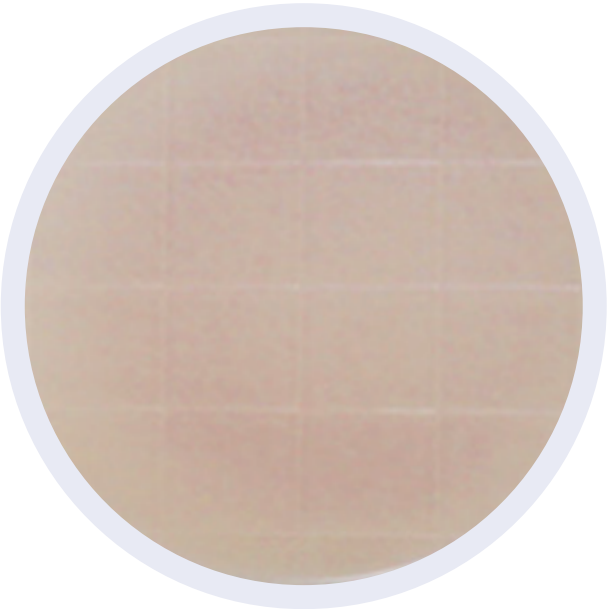
The Peel Plate® YM Microbial Test is a prepared culture method used for the detection and enumeration of yeast and mold in food and environmental samples. The Peel Plate YM test is based on PDA agar and contains an antibiotic that prevents the growth of bacteria. The test uses a green/blue/gray color indicator to express growth on the plate, which is easily counted against the pinkish background of the test plate. Please note, however, the occurrence of an alkaline phosphatase reaction is possible, depending on the sample, which may create a pinkish/red/grey tintedbackground. Count all visible colonies on the plate and report as a total yeast/mold count.

The countable range of the Peel Plate YM test is 1 – 150 CFU/mL. If the result is outside the countable range, the next higher or lower 1:10 serial dilution should be used to determine the colony forming count in a sample.

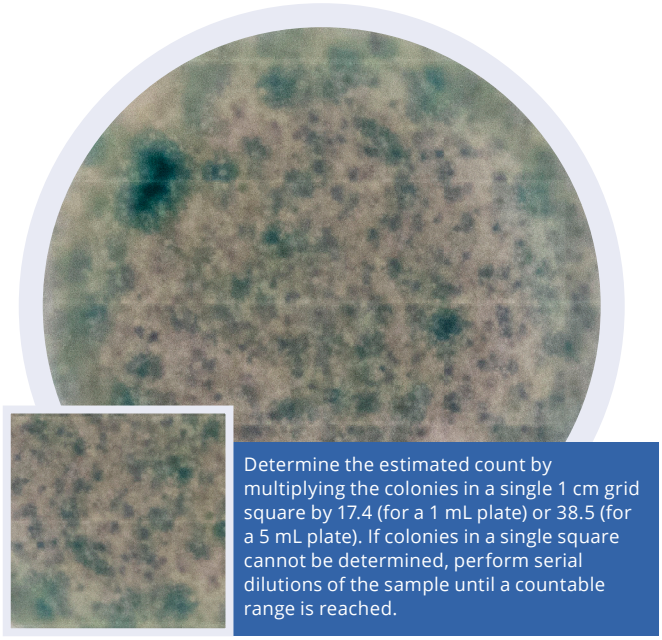
- **Sensitivity:** >1 CFU/mL
- **Accurate quantitative range:** 1 – 150 CFU/mL
- **Incubation**: 25 °C for 3 to 5 days

What You Can Expect to See

Depending on the matrix and product contaminants, colonies may be expressed differently.

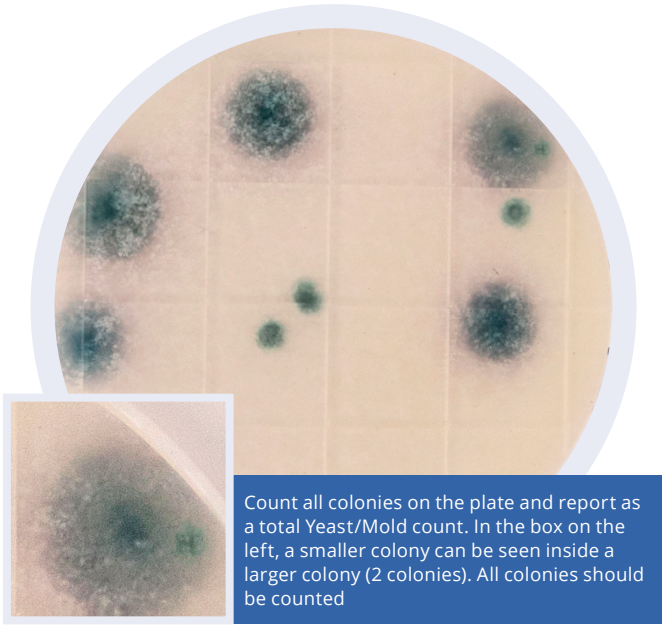


0 Colonies (No Growth)



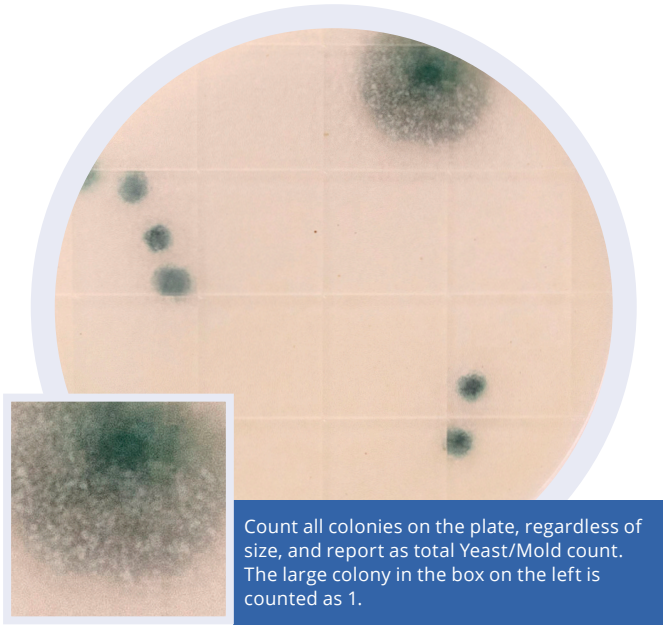
Determine the estimated count by multiplying the colonies in a single 1 cm grid square by 17.4 (for a 1 mL plate) or 38.5 (for a 5 mL plate). If colonies in a single square cannot be determined, perform serial dilutions of the sample until a countable range is reached.

TNTC (Too Numerous to Count)



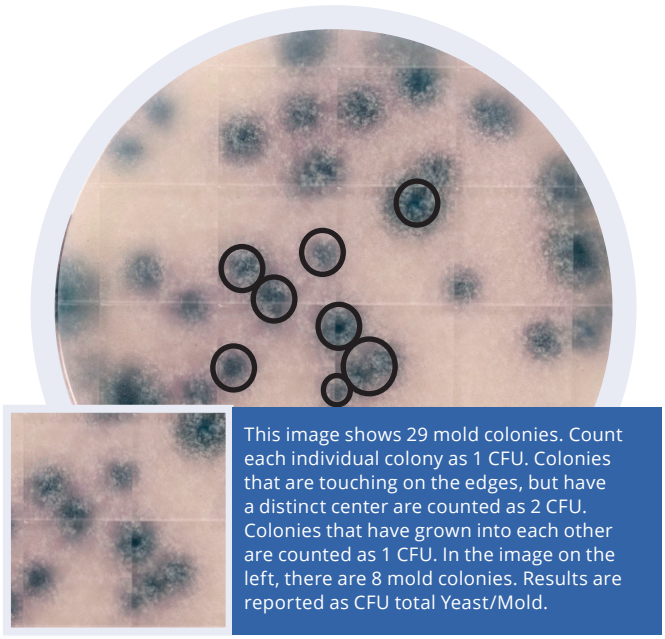
Count all colonies on the plate and report as a total Yeast/Mold count. In the box on the left, a smaller colony can be seen inside a larger colony (2 colonies). All colonies should be counted

9 Colonies



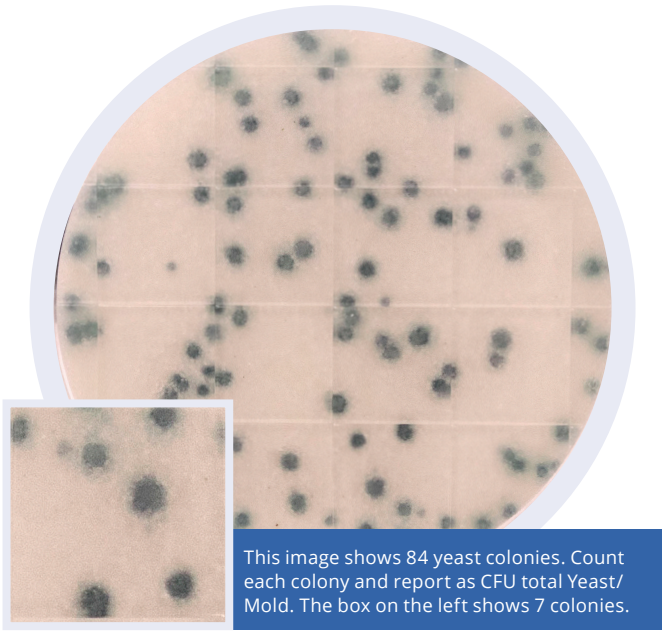
Count all colonies on the plate, regardless of size, and report as total Yeast/Mold count. The large colony in the box on the left is counted as 1.

7 Colonies



This image shows 29 mold colonies. Count each individual colony as 1 CFU. Colonies that are touching on the edges, but have a distinct center are counted as 2 CFU. Colonies that have grown into each other are counted as 1 CFU. In the image on the left, there are 8 mold colonies. Results are reported as CFU total Yeast/Mold.

29 Colonies

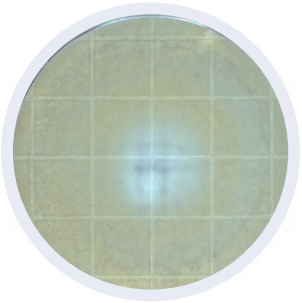


This image shows 84 yeast colonies. Count each colony and report as CFU total Yeast/Mold. The box on the left shows 7 colonies.

84 Colonies

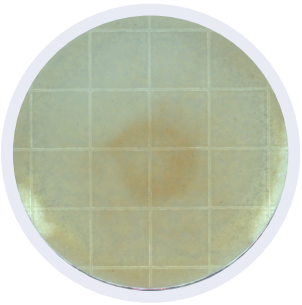
General Troubleshooting

Craters or Incomplete Wicking



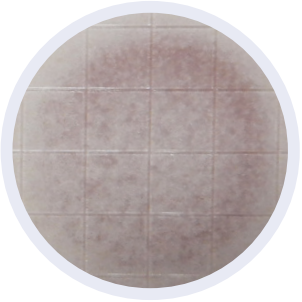
Craters are formed when sample is dispensed too slowly or the pipette is held too far away from the media. Samples should be dispensed within 2-3 seconds and the pipette should be held 1-2 cm above the media. Although wicking does not affect counts, best practice is to make sure the sample spreads evenly across the plate. If sample is too viscous to wick completely, additional dilution of the sample may be required or assist the wicking by lifting and rocking the plate. For more information on wicking, please contact Charm Technical Services.

Matrix Pattern on Tests



Some colloidal matrices like orange juice or chocolate milk, may have their particulates filter and concentrate at the site of sample delivery to the plate. This is most frequently observed with dilution pipets that inadequately mix sample during dilution. While matrix pattern does not affect the bacterial growth of plates, it can cause some interpretation questions. Matrix patterning may be reduced with mixing samples thoroughly before applying to test.

Background



Some matrices and some heat stressed plates may give a darker pink or purple background color. But this background does not interfere with the growth or detection of the dark greenish colonies of mold or yeast growth.

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