
Total Aerobic Bacteria, Yeasts and Molds

DOC316.53.01223

Total Aerobic Bacteria (Amber)/Yeast and Mold (Red)
Total Aerobic Bacteria (Amber)/Total Coliform (Red)
Total Aerobic Bacteria (Amber)/Disinfection Control (Purple)

Paddle Testers

Scope and Application: For detection of contamination of equipment that contacts food, cosmetics or pharmaceuticals, boiler and cooling tower water, laboratory surfaces requiring aseptic conditions and kitchen surfaces in restaurants and hotels

Test preparation

Before starting the test:

To ensure accurate results, read carefully before proceeding.

Paddle testers have a 12-month shelf life from date of manufacture.

Paddle Testers are most suitable for semi-quantitative screening. Monitoring with Paddle Testers over time will provide a good indication of how the microbial load is changing at a given site.

Wash hands thoroughly with soap and water.

For greater accuracy when interpreting results, count the colonies with the aid of the molded-in grid.

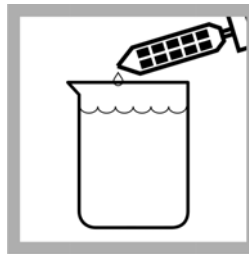
Paddle testers in liquid



1. Remove the paddle from the vial. Do not touch the media.



2. Dip the paddle into a liquid sample. Immerse all the growth media on the paddle into the liquid.



3. Remove the paddle from the liquid and allow excess liquid to drip off. Do not shake. Return the paddle to the vial and screw on the cap.



4. Incubate the Paddle Tester.
See the [Incubation of Paddle Testers](#) for incubation times.

Paddle testers in liquid (continued)



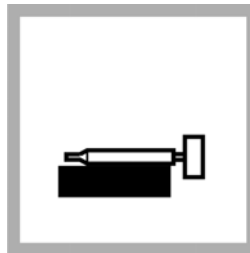
5. Refer to the [Bacterial colony density](#) and [Yeast and mold colony density](#) tables for results.

Sterilize the paddles before disposal. (See [Disposing of Paddles](#) table.)

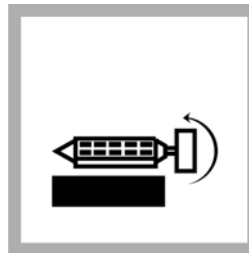
Paddle testers on solid and flat surfaces



1. Remove the paddle from the vial. Do not touch the media.



2. Press one side of the paddle to the surface to be tested.

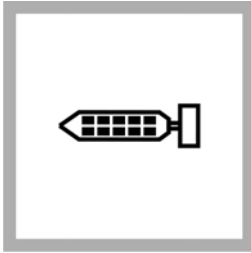


3. Turn the paddle over and press the other side to a new area of the test surface. Return the paddle to the vial and screw on the cap.



4. Incubate the Paddle Tester.
See the [Incubation of Paddle Testers](#) table for incubation times.

Paddle testers on solid and flat surfaces (continued)



5. Refer to the *Bacterial colony density* and *Yeast and mold colony density* tables for results.

Sterilize the paddles before disposal. (See *Disposing of Paddles.*)

Table 438 Incubation of Paddle Testers

Incubation of Paddle Testers	Incubation Temperature	Examine at:
Yeast and Mold	25 to 30 °C	Bacteria: 24 to 48 hours Yeast and Mold: 48 hours and up to 120 hours (5 days)
Total Coliform	35 to 37 °C	24 to 48 hours
Disinfection Control	35 to 37 °C	24 to 48 hours

Disposing of Paddles

To sterilize Paddle Testers before disposal:

- Autoclave for 15 minutes at 121 °C (250 °F) at 103 kPa (15 psi) or
- Pour 10 mL of household bleach (5.25% NaOCl) into the vial and allow it to sit for a minimum of 30 minutes.

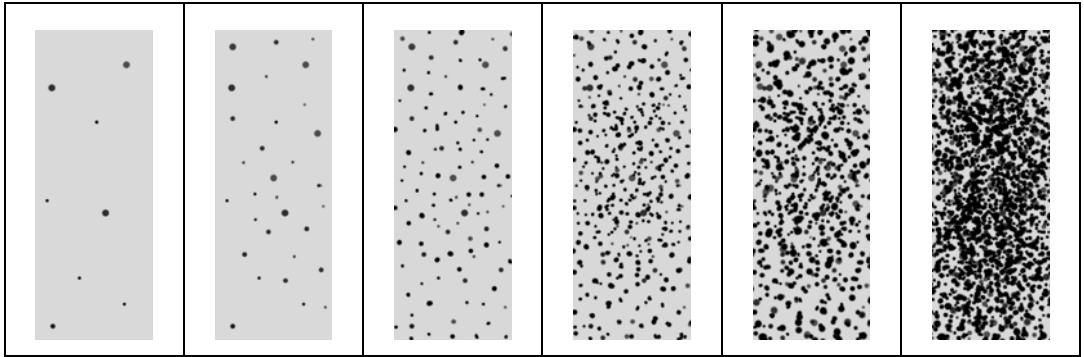
Interpreting the level of Contamination for total bacteria or total coliform bacteria

Identify the slide that most closely matches the sample. Use the density value above the slide.

Table 439 Bacterial colony density

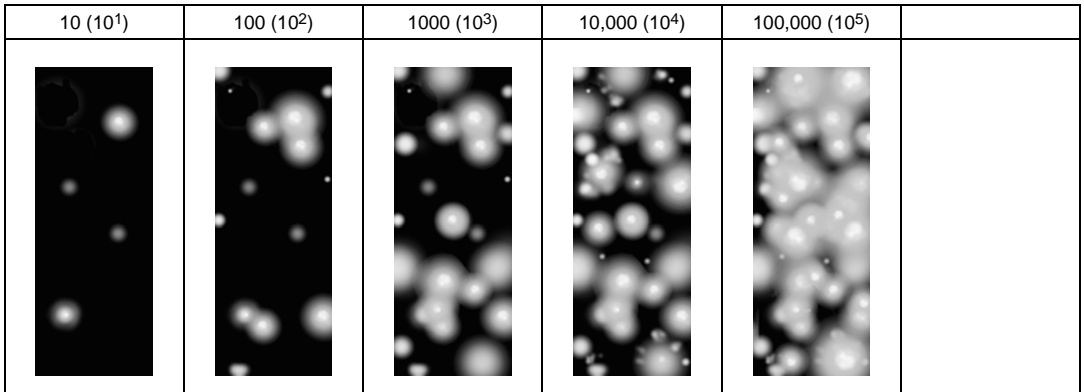
100 (10 ²)	1000 (10 ³)	10,000 (10 ⁴)	100,000 (10 ⁵)	1,000,000 (10 ⁶)	10,000,000 (10 ⁷)
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Table 439 Bacterial colony density



Interpreting the level of contamination for yeast and mold

Table 440 Yeast and mold colony density



Consumables and replacement items

Required reagents and media

Description	Unit	Catalog number
Total Aerobic Bacteria/Yeast and Mold Paddle Testers	10/pkg	2610810
Total Aerobic Bacteria/Total Coliform Paddle Testers	10/pkg	2610910
Total Aerobic Bacteria/Disinfection Control Paddle Testers	10/pkg	2619510

Required apparatus

Description	Unit	Catalog number
Incubator, Culture, 120 VAC, 50/60 Hz	each	2619200
Incubator, Culture, 220 VAC, 50/60 Hz	each	2619202

Optional media, reagents and apparatus

Description	Unit	Catalog number
Adapter for rechargeable battery pack, 230 VAC (for 2580300)	each	2595902
Autoclave, 120 VAC, 50/60 Hz	each	2898600
Bag, for contaminated items	200/pkg	2463300
Battery eliminator	each	2580400
Battery pack, rechargeable, for portable incubator 12 VDC	each	2580300
Beaker, 100-mL	each	50042H
Bottle, sample, sterilized, 100-mL, disposable with dechlorinating agent	12/pkg	2599112
Bottle, sample, sterilized, 100-mL, disposable with dechlorinating agent	50/pkg	2599150
Bottle, sample, sterilized, 100-mL, disposable	12/pkg	2495012
Bottle, sample, sterilized, 100-mL, disposable	50/pkg	2495050
Dechlorinating Reagent Powder Pillows	100/pkg	1436369
Germicidal Cloths	50/pkg	2463200
Incubator, portable, 12 VDC	each	2569900
Sterilization Indicator, Sterikon®	15/pkg	2811115
Sterilization Indicator, Sterikon®	100/pkg	2811199



FOR TECHNICAL ASSISTANCE, PRICE INFORMATION AND ORDERING:

In the U.S.A. – Call toll-free 800-227-4224

Outside the U.S.A. – Contact the HACH office or distributor serving you.

On the Worldwide Web – www.hach.com; E-mail – techhelp@hach.com

HACH COMPANY
WORLD HEADQUARTERS
Telephone: (970) 669-3050
FAX: (970) 669-2932