

# TTC/M DIPSLIDES

## TEST FOR TOTAL BACTERIA COUNT, YEASTS AND MOULDS

Palintest TTC/M Dipslides are a combination slide for the detection of bacteria, yeasts and moulds in fluids and on surfaces. These slides provide a simple means of enumerating these micro-organisms in industrial and environmental applications. Palintest TTC/M Dipslides find particular application for monitoring cooling water and similar recirculating water systems, natural waters and effluents, and industrial cutting fluids. The range of detection for bacteria and yeasts is  $10^3$  -  $10^7$  CFU/ml for fluids or 5 - 250 CFU/cm<sup>2</sup> for surfaces. The range of detection for moulds is  $10^2$  -  $10^4$  CFU/ml for fluids and 0.4 – 4 CFU/cm<sup>2</sup> for surfaces.

### PRINCIPLE

Palintest TTC/M Dipslides comprise a simple agar slide contained in a plastic test tube. The lighter colour medium comprises nutrient agar for total aerobic count of bacteria (plate count). The medium contains TTC dye which stains most colonies red for easy enumeration. The darker coloured medium comprises malt agar from the growth of yeast and moulds. Yeast appear as low round white or grey discs, moulds appear as furry colonies. After incubation the slide surfaces are simply compared against the appropriate comparison chart to obtain the bacteria, yeast or mould count.

### INSTRUCTIONS FOR USE

#### Testing Fluids

- 1 Hold the Dipslide by the cap and remove from the tube. Do not touch the culture medium.
- 2 Immerse the slide in the fluid to be tested for about 10 seconds. Alternatively expose the slide to a spray or running fluid so that the slide surfaces are covered.
- 3 Remove the slide from the fluid and allow it to drain for a few seconds.
- 4 Replace the Dipslide into the tube and twist to tighten the cap. Label the tube with the identification label supplied. Incubate the slide as directed later.

## Testing Surfaces

- 1 Hold the Dipslide by the cap and remove from the tube. Do not touch the culture medium.
- 2 Press one side of the slide against the surface to be tested and draw it lightly across the surface for about six inches (15 cm). When testing curved surfaces roll the slide to ensure maximum contact between the medium and the surface.
- 3 Turn the slide over and repeat the procedure with the other medium. Use a different part of the surface being tested.
- 4 Replace the Dipslide into the tube and twist to tighten the cap. Label the tube with the identification label supplied. Incubate the slide as directed later.

## Incubation

After the slides have been inoculated as above they must be incubated to allow the growth of bacteria, yeasts or mould. For precise enumeration of organisms, it is important to incubate at the correct temperature. The growth of bacteria requires a different incubation temperature to that for the growth of yeasts and moulds. If enumeration of bacteria, yeast and moulds are required then it is recommended that two dipslides be inoculated and each incubated at the appropriate temperature stated below :-

**Bacteria** incubate at 35 - 37°C for two days

**Yeasts and Moulds** incubate at 27 - 30°C for two days. Note that higher temperatures may inhibit the growth. In the case of negative results, incubation for a further five days can be carried out to detect any slow growing strains.

If it is required merely to detect the presence of micro-organisms, or only to get an approximate enumeration, then the slides can simply be stood in a warm place and examined after two days. If the temperature is considerably lower than the temperatures stated above, microbial growth may be slow and it is advisable to continue incubation for a further period to detect the presence of organisms.

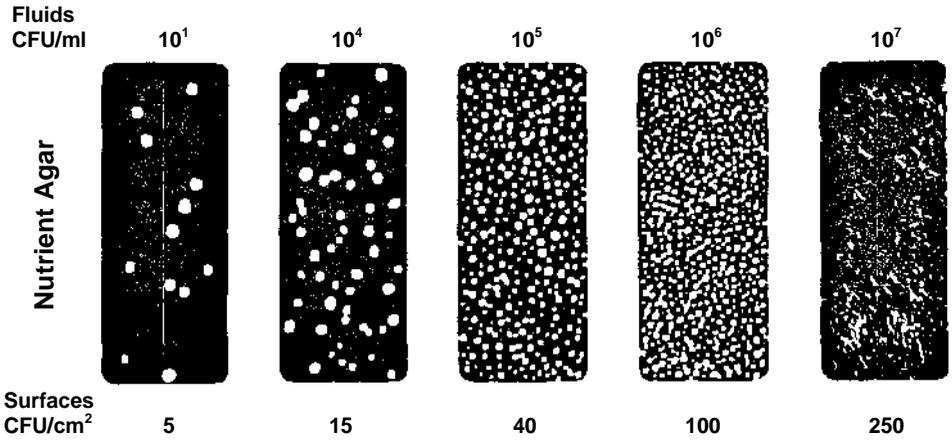
## INTERPRETATION OF RESULTS

Compare the slide surfaces against the comparison charts printed opposite. Read the result corresponding to fluids or surfaces as appropriate. Note that very high levels of organisms could lead to a confluent growth and could be recorded as a nil result. Compare against an unused slide when reading results.

## Comparison Chart Bacteria/Yeasts

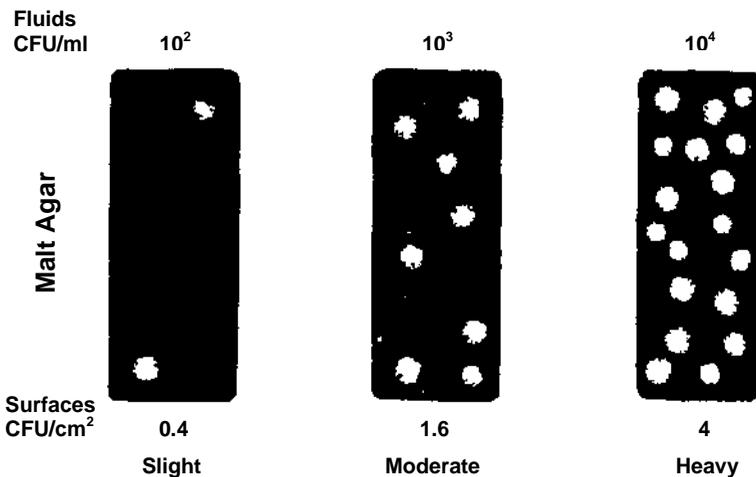
Bacteria - compare on lighter coloured medium. Count all red and colourless colonies.

Yeasts - compare on darker coloured medium. Count all white, grey and colourless disc shaped colonies.



## Comparison Chart Moulds

Moulds - compare on darker coloured medium. Count all furry colonies.



## **DISPOSAL OF DIPSLIDES**

Incubated dipslides may contain active bacteria and micro-organisms. Do not open infected slides except as part of disposal procedure.

Infected slides should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

## **STORAGE**

Palintest TTC/M Dipslides should be stored in a cool place. The shelf-life is nine months from date of manufacture. The expiry date is marked on the product pack.

Do not use any slides which have been inadvertently contaminated during storage and which are already showing growth of micro-organisms.

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