CASP MICROSLIDE DIPSLIDES

APPLICATION NOTES FOR METALWORKING/CUTTING FLUIDS

Uncontrolled development of bacteria in metalworking fluids presents a serious risk due to the spray & mist generated by various machining processes. This is may be inhaled in the form of tiny droplets exposing the respiratory tract to direct infection. Another school of thought may now also attribute this to some skin conditions.

Micro Slide Dip slides allow a simple screening of fluids to establish the level of bacteria and decide appropriate action or monitor the performance/dose level of any Biocide treatment regime.

We recommend using our A1APX product, this will give a clear bacteria count on the clear agar and a fungal count on the brown agar, our A3RGB slide will offer the same test but the pink/red agar for fungal counts is developed for high protein applications and may be better suited to synthetic fluids.

Incubation is important to promote accurate culture growth, both slide types are best incubated at 30^{0}C, it should be noted that bacteria counts will need at least 48 Hrs & fungal counts up to 5 days. Incubation at 35^{0}C will promote a more rapid bacteria count but may be detrimental to fungal counts as they tend to prefer cooler, damp conditions. If facilities allow 32-33^{0}C is a happy medium although it is worth continuing incubation for up to 72hrs for bacteria, especially if counts initially appear low.

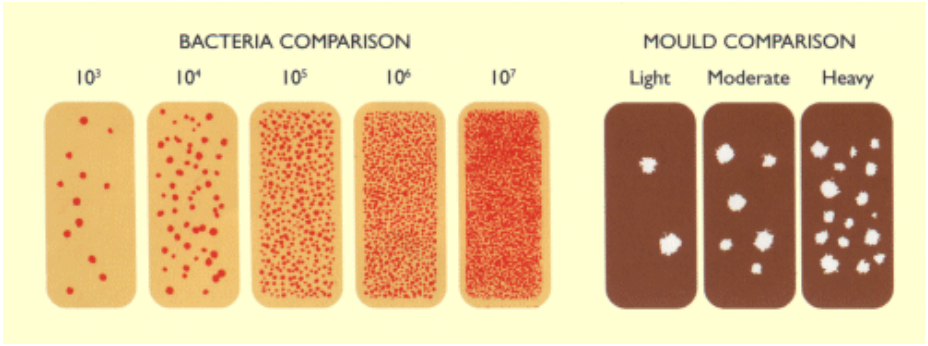
Bacteria counts should not exceed 10^3 and above this level requires action in the form of a Biocide or cleaning regime review, fluid manufacturers will offer advice on this together with suitable Biocides. Prior to any testing you must undertake a risk assessment; the UK Health & Safety Executive website has a resource & forms in Metalworking Fluids Section

SAMPLING & TESTING WITH MICROSLIDES

1 – Prior to use please keep the slides in a cool place, remember the typical shelf life of 8 – 9 months. The slide is opened, care must be taken not to touch the media or expose to the atmosphere in order to prevent false contamination

2 – The sample should be taken in a clean container, free from any detergents. If possible this should be rinsed in the process fluid a couple of times prior to sampling. When ready the Dipslide is submerged to just above the top of the culture media for around 2 seconds, then gently shaken to remove excess fluid before replacing in the tube.

3 – Place the slide into the Incubator, for the required temperature and period. Incubation is vital for accurate results, windowsill or radiators will not allow accurate interpretation as if to warm bacteria will be destroyed and if to cold bacteria may fail to develop fully; both scenarios will lead to false results.



4 – After the incubation period interpretation can be taken against the chart by comparing the number or density of dots. Total bacteria counts show as red dots, if these are a little faint another few hours of incubation may be needed. Moulds & Fungal growth show as large fury clusters.

Featured products – A1APX TTC/Malt & A3RBG TTC/Rose Bengal MicroSlide Dipslides and the GNAT pre-set economy Incubator