

## **WIPE, Test Code 1057-Total Thermophilic Fungal Count w/ ID**

Thermophilic fungi have a growth range of 20 to 50°C. A building related fungus that falls within this category is *Aspergillus fumigatus* and is the main agent of Aspergillosis in healthcare environments. *Aspergillus* spores are normally found in the air we breathe and typically do not cause illness. The spores are inhaled into the lungs and the fungus will grow and reproduce readily in an individual with a weakened immune system. The individual with a weakened immune system can die very easily from this type of infection.

*Aspergillus fumigatus* can grow at 25C but it may be overgrown by other fungi at this temperature. Swabs are set up at 25C and 45C allowing the thermotolerant fungi to grow but not the saprophytic room temperature fungi.

The test code 1057 includes both the thermophilic and mesophilic fungal culture. Only one swab is necessary for both temperatures.

1. Crush the ampoule in the bottom of the swab to moisten the swab before sampling.
2. Remove both swabs of the double system and sample the affected surface by rolling both swabs vigorously over the area. Indicate surface area (cm<sup>2</sup> or in<sup>2</sup>) on chain of custody. Assessment samples should be no larger than a 4 x 4 area. Post abatement samples may be larger.
3. Label all samples appropriately and submit to the laboratory for analysis in a timely manner. \*Swabs should be refrigerated if the samples are not immediately sent to the lab. A cold pack and cooler should be used during the warm months.

### **References:**

Dillon, H. Kenneth, L. Hung, J. Miller, Field Guide for the Determination of Biological Contaminants in Environmental Samples., 3.4.2, 5.2.6.6:61, 7.1: 141-143 (2005).

Macher, Janet, Sc.D., M.P.H., Bioaerosols , 7.4.1.2, 18.1.4.2 (1999).