

Understanding Direct Microscopic Examination Results

The main purpose of a standard direct examination is to identify and quantify the molds found growing on the surface sampled. The main job of the analyst is to make the distinction between molds that are actively growing in the location sampled and those that occur naturally in indoor air and are not indicative of mold growth in the location sampled.

Unfortunately, quantitative counts of mold spores, by themselves, are not a good way of determining how much mold growth is present in the sample for two reasons. First, high spore counts can be found in dust samples, even when growth is not present. Second, heavy mold growth can have few spores if it is not yet mature enough to produce large quantities of spores. Therefore, we use the semi-quantitative scale described in the table below to report the quantity of mold growth observed. This scale is based not just on spore counts, but also the amount of hyphae/mycelium (the “roots” or “branches” of the mold organism) present. One of the most useful measures described in the table, is the density of hyphae/mycelium observed on the surface.

Mold Spores Indicative Of Mold Growth Category

<i><1+</i>	Very few spores and other mold parts were observed. Despite low counts, the presence of hyphae/mycelium does indicate mold growth. Peak densities observed covered less than about 10% of the surface. Number of mold spores typically range from none to about 20,000 spores per cm ² .
<i>1+</i>	Few spores and other mold parts were observed. Despite low counts, the presence of hyphae/mycelium does indicate mold growth. Peak densities observed covered about 10% to 25% of the surface. Number of mold spores typically range from none to about 200,000 spores per cm ² .
<i>2+</i>	Moderate number of spores and other mold parts were observed indicating moderate growth. Peak densities observed covered about 25% to 50% of the surface. Number of mold spores typically range from none to about 2,000,000 spores per cm ² .
<i>3+</i>	Many spores and other mold parts were observed, indicating heavy growth. Peak densities observed covered about 50% to 75% of the surface. Number of mold spores typically range from none to about 4,000,000 spores per cm ² .
<i>4+</i>	Very many spores and other mold parts were observed, indicating very heavy growth. Peak densities observed covered more than about 75% of the surface. Number of mold spores typically range from none to more than about 4,000,000 spores per cm ² .

Mold Spores Not Indicative Of Mold Growth Category

<i>Very Few</i>	<i>Few</i>	<i>Moderate</i>	<i>Many</i>
Very few mold spores detected. Peak densities can range up to 10 spores per cm ² .	Few mold spores detected. Peak densities can range up to 25 spores per cm ² .	Moderate number of mold spores detected. Peak densities can range up to 50 spores per cm ² .	Many mold spores detected. Peak densities can range up to more than 50 spores per cm ² .

Other Particles Category

	<i>Very Few</i>	<i>Few</i>	<i>Moderate</i>	<i>Many</i>
<i>Skin cells</i>	Very few skin cells detected. Peak densities can range up to 10 skin cells per cm ² .	Few skin cells detected. Peak densities can range up to 25 skin cells per cm ² .	Moderate number of skin cells detected. Peak densities can range up to 50 skin cells per cm ² .	Many skin cells detected. Peak densities can range up to more than 50 skin cells per cm ² .
<i>Pollen</i>	Very few pollen detected. Peak densities can range up to 5 pollens per cm ² .	Few pollen detected. Peak densities can range up to 10 pollens per cm ² .	Moderate number of pollen detected. Peak densities can range up to 15 pollens per cm ² .	Many pollen detected. Peak densities can range up to more than 15 pollens per cm ² .

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