

Case study of suspected moldy metal utensils

I - Introduction

Mold growth on items exhibits specific visual characteristics, such as filamentous structures, patches of different colors, or the presence of a film or fuzzy substance covering the surface. These visual features can also appear in other situations, leading to misidentification as mold growth.

During the processing and manufacturing of metal utensils, grease or lubricants are often used. If residue forms an oily film or stains on the products, it can be mistaken for mold growth. Additionally, dust, particles, and metal debris generated during factory production may adhere to the product surface, resembling mold growth and leading to misjudgment. However, these oil or dust contaminants can also serve

as a nutrient source for mold. If not promptly cleaned, they can contribute to mold outbreaks during subsequent packaging, transportation, or storage.

YCM Mold Research Center (MRC) has assisted Brand J in determining whether the suspected moldy structures on their metal utensils were caused by mold growth. This information serves as a reference for their quality management.

II - Result

The metal utensil submitted by Brand J showed visible spotted contamination. After being tested by YCM MRC, no mold growth structures were found (Figure 1).

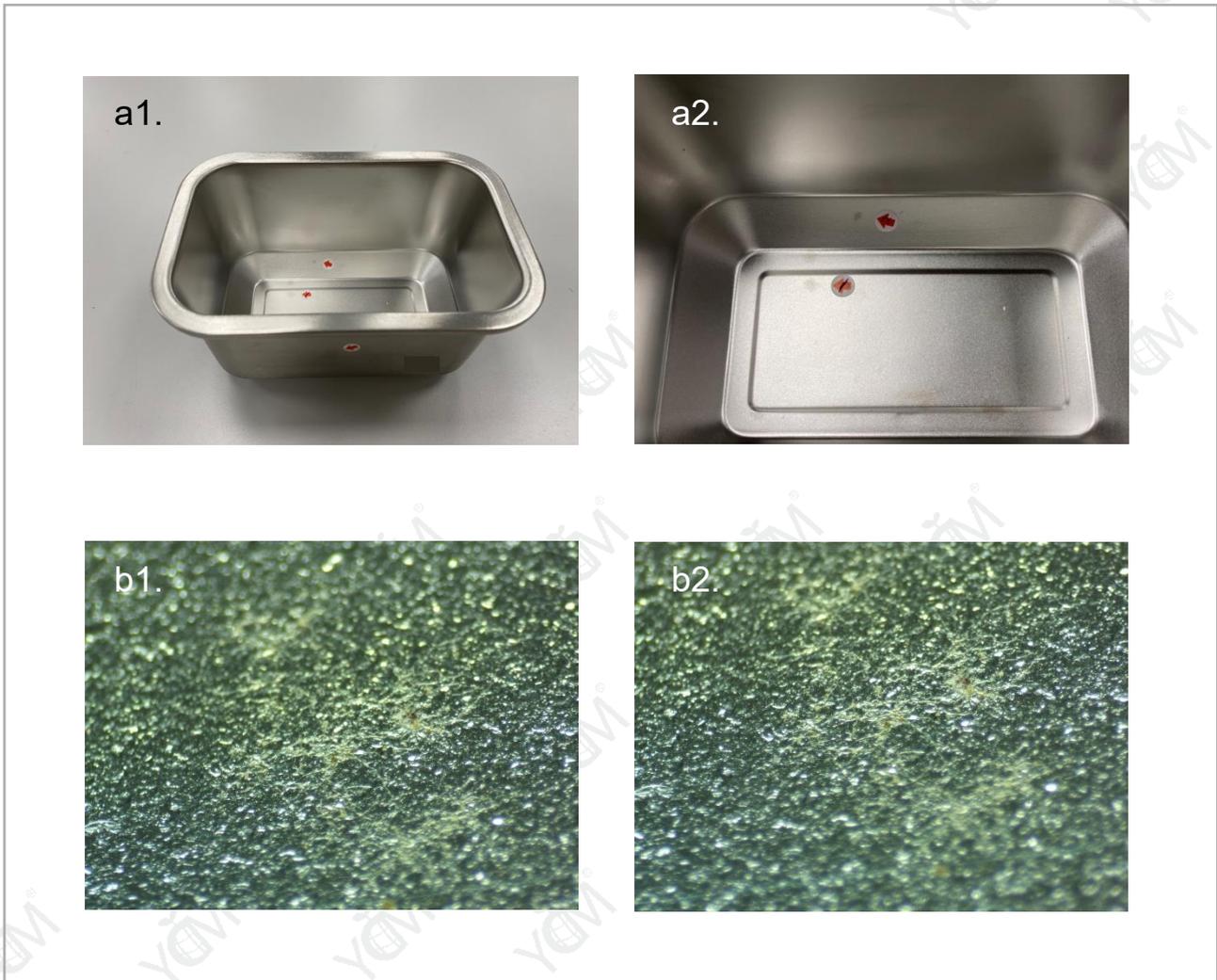
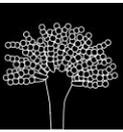
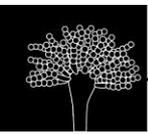


Fig 1. Metal products sent by Brand J for Inspection

a1 – a2. Suspected moldy metal utensils from Brand J ;

b1 – b2. Metal products from Brand J were observed under a microscope, and no mold growth structures were found.



III 、 Conclusion

The suspected moldy spot contamination on Brand J's metal utensils was examined by YCM MRC, and no characteristics or structures of mold growth were observed. The result was determined to be “non-mold growth” possibly caused by oil contamination or dust accumulation during the manufacturing process. However, these contaminants can serve as nutrients for mold, emphasizing the need for a thorough evaluation of the production process and maintenance of

environmental conditions to prevent subsequent mold growth cases.

Furthermore, the visual characteristics of mold contamination can vary depending on different species of mold and are also influenced by the growth environment and conditions. Therefore, to confirm the presence of mold growth on an item, YCM Mold Research Center can conduct professional testing and identification, assisting brands or factories in achieving accurate product quality control.