

**MED**  
MICRO DOME

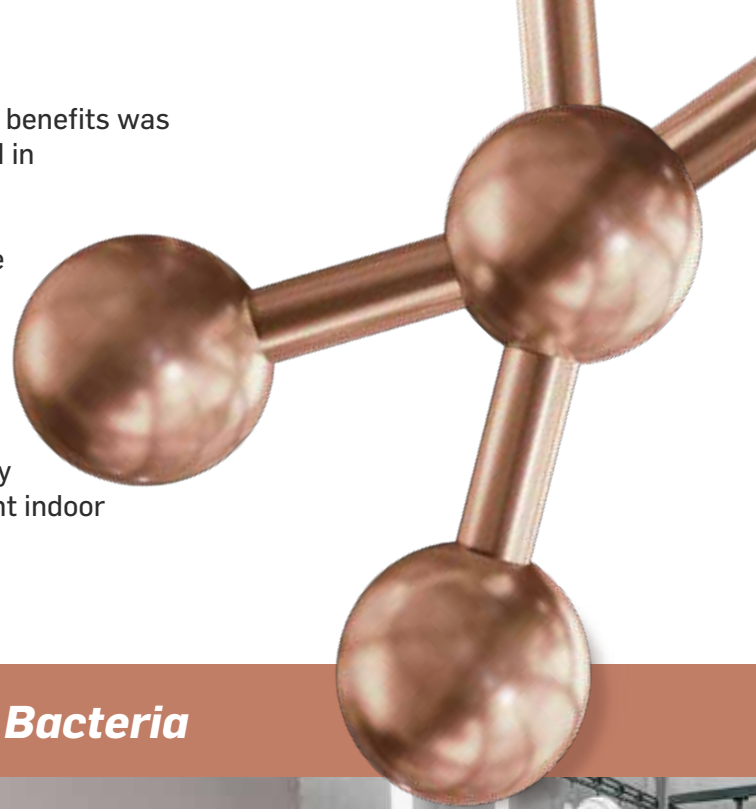


**Antimicrobial Powder Coatings**  
Powered by **ESKAPE-Check™** Technology

The potential of **Cu** as an antiseptic and additional health benefits was recognized by major cultures in ancient times, mentioned in Hippocrates' original books and the texts of Ayurveda.

Copper's antimicrobial properties have been known since ancient times, and the recent resurgence in using copper as an antimicrobial material or coatings is motivated by the growing concern about antibiotic resistance and the pressure to reduce antibiotic use.

Copper demonstrates rapid and high microbicidal efficacy against pathogens that are in close contact under ambient indoor conditions, which enhances its range of applicability.



## Rapidly Destroy 99% of Surface Bacteria



Penetrates the bacterial cell rapidly



Effective at very low concentration levels



24/7 Protection for many years



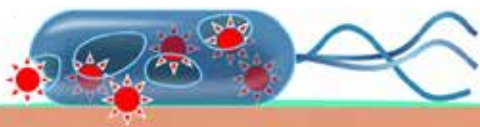
### How Does Copper Kill Virus



Copper dissolves from the ESKAPE Check induced powder coated surface and causes cell damage.



The cell membrane ruptures because of copper and other stress phenomena, leading to loss of membrane potential and cytoplasmic content.



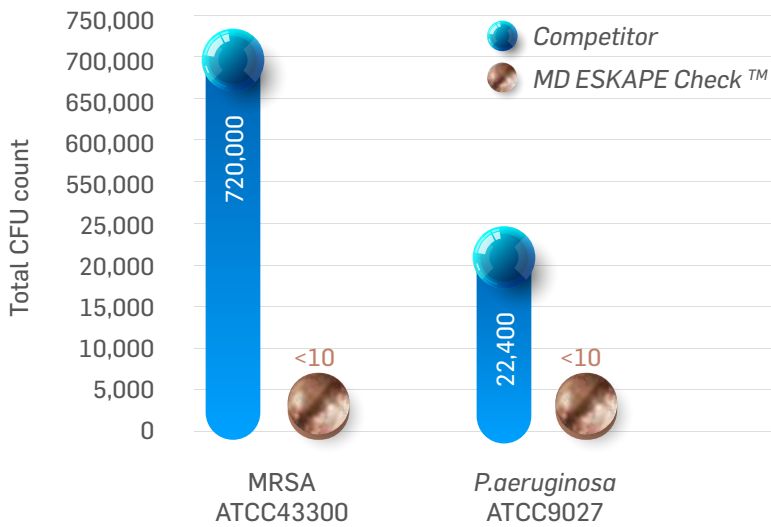
ESKAPE Check Copper ions induce the generation of reactive oxygen species, which cause further cell damage.



Genomic and plasmid DNA becomes degraded.

# Proven to work. Safe to use

Unmatched performance when compared to competitors



Total CFU count recovered from competitor and MD ESKAPE Check™ powder coated surfaces

Sterilization Rate upto

**99%**

MicroDome powder coatings, with the integration of ESKAPE-Check™ additive technology, offer a versatile solution with a wide range of applications. The main benefit of this technology is its ability to help maintain a low level of microbes in various environments. Some of the key application areas where MicroDome powder coatings with ESKAPE-Check™ can be effective include:



## Healthcare Facilities

In healthcare settings such as hospitals, clinics, and laboratories, maintaining a clean and sterile environment is crucial to prevent the spread of infections. MicroDome powder coatings can be applied to various surfaces in these facilities to help reduce the presence of harmful microbes.

## Food & Catering

In the food industry, hygiene is of utmost importance to prevent foodborne illnesses. Coating surfaces in food processing areas, storage facilities, and catering environments with MicroDome powder coatings can aid in maintaining a sanitary environment.





## *Locker/Changing Rooms*

High human traffic areas like locker rooms and changing rooms can become breeding grounds for bacteria and other pathogens. Applying MicroDome powder coatings in these areas can help reduce microbial contamination and enhance cleanliness.

## *Public Transport*

Buses, trains, and other forms of public transport can be prone to microbial contamination due to the large number of passengers using them daily. Using MicroDome powder coatings on frequently touched surfaces can help minimize the risk of transmission.



## *Airports*

Airports are bustling hubs with a constant flow of travelers from various locations, which increases the likelihood of spreading infections. Coating surfaces with MicroDome powder coatings can contribute to a cleaner and potentially safer environment.

## *Educational Institutions*

Educational facilities with a high concentration of students and staff can be susceptible to the spread of illnesses. MicroDome powder coatings can be applied to various surfaces in classrooms and common areas to create a more hygienic environment



MD

Studies demonstrate that copper presents a low likelihood of developing antimicrobial resistance. Copper and copper alloys have been used by humans for thousands of years, yet no bacteria fully resistant to contact killing have been discovered. Antimicrobial resistance is a concern that is often voiced in the context of antimicrobial surfaces. The benefit of utilizing a copper based biocide is the documented low likelihood of copper leading to antimicrobial resistance. It is a ubiquitous material that has been incorporated in our built environments for thousands of years without evidence of full resistance being developed.





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