

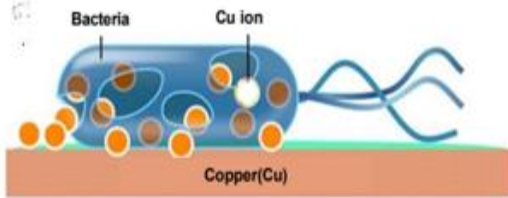


# Adams Plastics Introduces SAFE TOUCH ANTI-MICROBIAL FILM COPPER LAMINATE



## Understanding the problem

- The coronavirus is caused by pathogenic organisms that cause a variety of symptoms and mutate as it infects people.
- Transmission reduction is the best way to minimize the spread of coronavirus

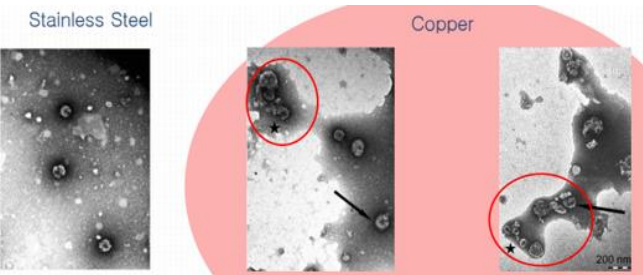
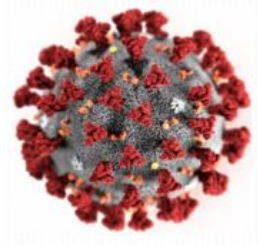


## Principle behind the Antiviral effects of Copper

Antimicrobial Copper acts as an inhibitor of the virus replication

## How it works

- Bacteria recognizes the copper ion on the copper surface as an essential nutrient so the bacteria absorbs it into the cell.
  - The absorbed copper ion penetrates the cell membrane, so the cell loses significant nutrients and water.
  - Copper ion pulls the active oxygen ROS (reactive oxygen species) through the penetrated hole of the cell membrane
  - The bacteria's respiratory and metabolic activity is impeded, which leads to complete extinction.
- Note: Hands infected with germs (bacteria) can form a great environment for viruses to self-replicate.



## Antimicrobial activity of copper

- The coronavirus can live for hours to days on surfaces like countertops and doorknobs. How long it survives depends on the material the surface is made from
- The coronavirus starts to deactivate in the copper surface within 10 minutes and copper completely destroys the body structure and genome of the virus within 4 hours

## Characteristics & Common Applications

- Semi-permanent use
- Everlasting antimicrobial effect
- Change film depending on damage or use

