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## DESIGNING WITH ANTIMICROBIAL COPPER

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### 80% of Infections are Transmitted By Touch.\*

An important number to keep in mind when comparing the design benefits of copper alloys with alternative touch surface materials is that 80% of infections are transmitted by touch.

While uncoated copper, brass and bronze begin killing bacteria\* on contact, stainless steel, plastic and aluminum do not. This antimicrobial action can make all the difference when designing for healthcare facilities and high traffic areas, such as schools, gyms and public transportation hubs.

More than 350 copper alloys, ranging from 99.9% to 60% copper content, have been registered as antimicrobial by the U.S. Environmental Protection Agency. So, designers have an almost infinite choice of colors, textures and finishes with which to express their designs. And it does not stop there. EPA registration of additional copper alloys, affecting more organisms and approved for additional applications, is anticipated.

\* Tierno, P. (2001): The Secret Life of Germs. Atria Books: New York, NY, USA.

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Antimicrobial  
Copper



## How Effective Is Copper?

A comprehensive multi-site clinical trial using Antimicrobial Copper surfaces in intensive care unit rooms seeks to reproduce laboratory results in the real world to demonstrate that Antimicrobial Copper surfaces can provide another tool in the fight to reduce infections. Preliminary results are being submitted to the U.S. EPA for review.

Laboratory testing shows that copper, brass and bronze kill 99.9% of dangerous bacteria\* within two hours and remain effective after initial contact, delivering continuous antibacterial action.

The EPA allows public health claims to be made about the effectiveness of copper against some of the most prevalent infectious bacteria:

- Vancomycin resistant enterococcus (VRE)
- Methicillin resistant Staphylococcus aureus (MRSA)
- Staphylococcus aureus
- E. coli O157:H7
- Enterobacter aerogenes
- Pseudomonas aeruginosa

EPA-approved applications for Antimicrobial Copper include:

- Door hardware: locksets, handles, levers, push plates, kick plates, mop plates, stretcher plates, stops, pulls and closures
- Cabinet and casework surfaces and hardware: knobs, pulls, handles
- Tables, countertops, backsplashes, casework
- Switch and wall plates
- Exit devices
- Hand rails, stair rails and grab bars
- Lockers, shelving and trash receptacles
- Plumbing hardware: handles, spouts, control levers
- Window hardware: levers, hinges, pull handles
- Elevator cabs, handrails

\*Laboratory testing shows that, when cleaned regularly, Antimicrobial Copper kills greater than 99.9% of the following bacteria within 2 hours of exposure: Vancomycin resistant enterococcus (VRE), Methicillin resistant Staphylococcus aureus (MRSA), Staphylococcus aureus, E. coli O157:H7, Enterobacter aerogenes and Pseudomonas aeruginosa. Antimicrobial Copper surfaces are a supplement to and not a substitute for standard infection control practices.

For a complete list, please visit [www.antimicrobialcopper.com](http://www.antimicrobialcopper.com).

Antimicrobial Effectiveness: reduction in bacterial levels at 68 °F/20 °C

