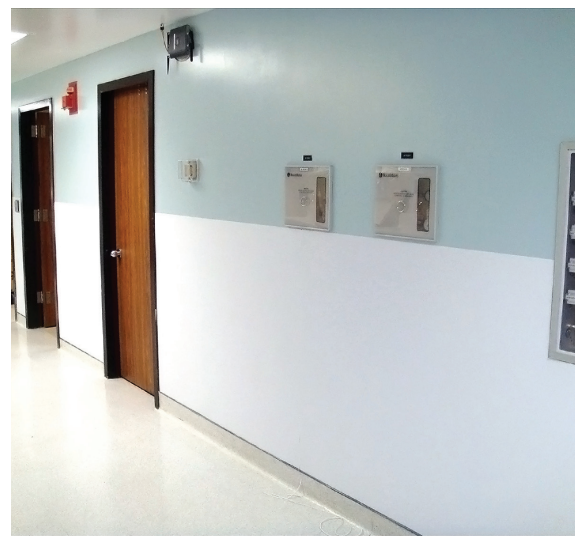


# KING MEDI<sup>®</sup>GRADE

The Antimicrobial Polymer Building Sheet for Healthcare Applications

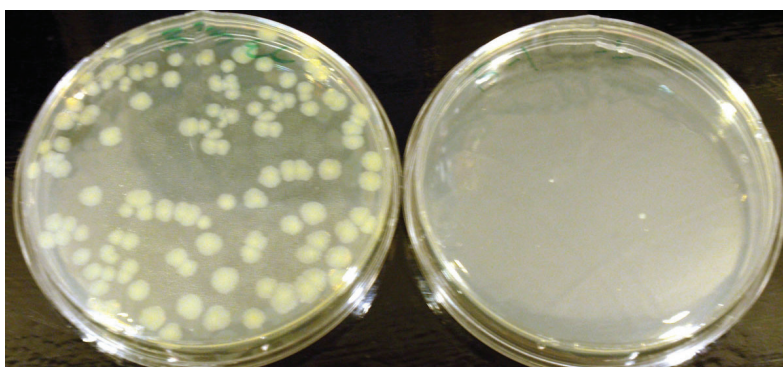


## Healthcare



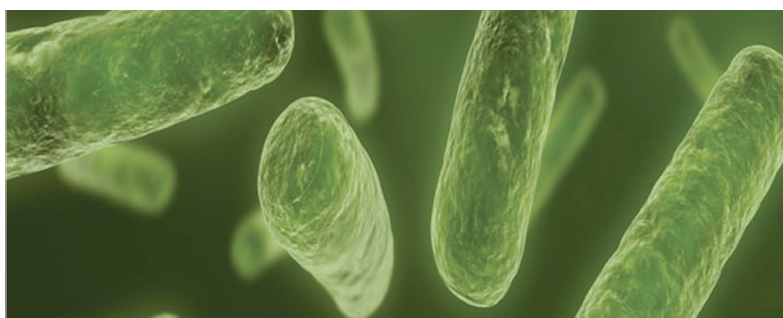


## 24 Hour Microbial Inhibition Test



Untreated

Treated



\*Representative sample of microbes tested to date. Samples may be provided for customer-specific testing if required.

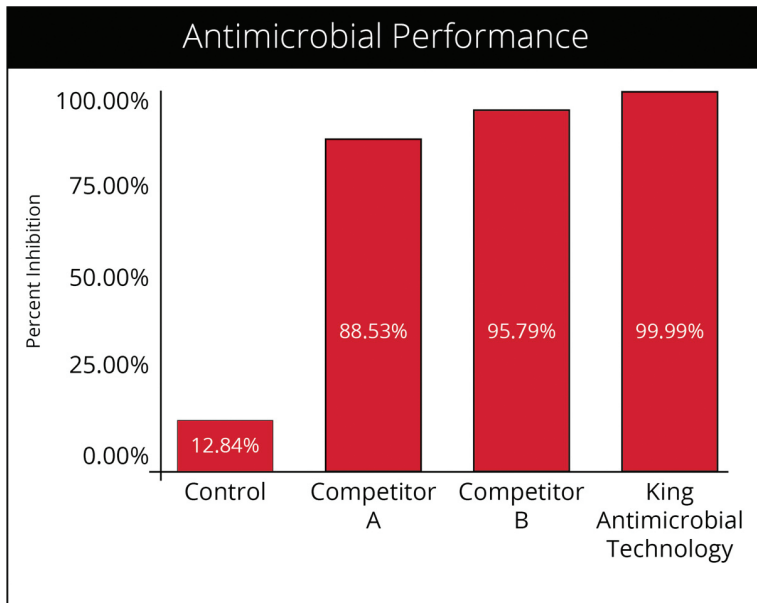
## Inhibits the Amount of Product-Damaging Bacteria by 99.99% Compared to an Untreated Surface

King MediGrade<sup>®</sup> uses an advance antimicrobial technology for protecting the product surface against stain and odor causing bacteria, algae and fungi. Because the antimicrobial agent is bonded at the molecular level throughout the sheet, King MediGrade<sup>®</sup> retains its protection throughout life of the application, and does not harm the environment. The polymer sheets are safe, non-toxic and non-hazardous to ship and handle. King MediGrade<sup>®</sup> polymer products are easy to clean and disinfect using standard cleaning and disinfecting procedures. Frequent cleaning will not affect King MediGrade<sup>®</sup> products. Please refer to the chemical resistance chart for proper cleaning and maintenance. Visit [www.kingplastic.com](http://www.kingplastic.com) for details and technical specifications.

## Applications

- Case Goods
- Clean Rooms
- Commercial Laboratories
- Dental Sterilization Stations
- Hospital Wall Panels
- Lockers
- Medical Computer Carts
- Medical Food Carts
- Nurses Stations
- Rest Room Partitions
- Storage Carts
- Veterinary Facilities

# Advanced Antimicrobial Technology

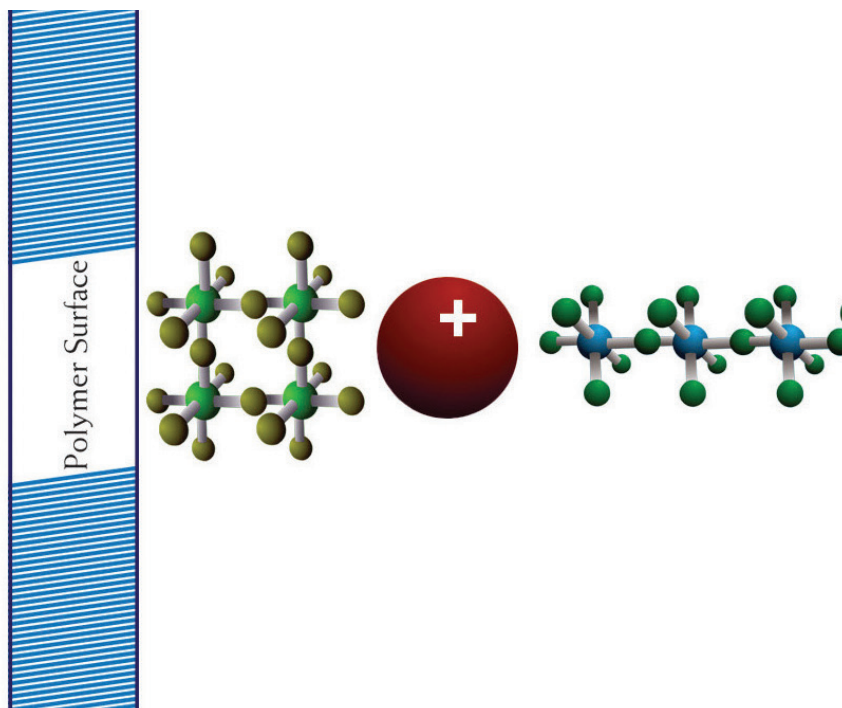


## Notes:

- Test performed by Microchem Laboratory, an independent testing lab.

## At a Glance

- Inhibits the amount of certain product-damaging bacteria by 99.99%\* compared to an untreated surface
- Tested for antimicrobial efficacy using ASTM E2149 and JIS Z2801
- Protects against bacterial degradation for the lifetime of the product
- Active antimicrobial ingredient is EPA registered and accepted for use in polymers and plastics
- Made entirely from FDA approved materials
- No volatile organic compounds (VOCs)
- Chemical-resistant and easy to clean
- Bonded at the molecular level, enabling permanent surface protection that is effective for the service life of the application
- Non-leaching and non-migrating
- Applications will stay cleaner and fresher between cleanings



## How it Works

- Base permanently bonds to the polymer
- Positively charged atom attracts the negatively charged microbe
- Microbe has negatively charged cell membrane
- Long molecular chain punctures cell membrane
- Positive charge further inhibits microbe growth
- Antimicrobial is present throughout the entire sheet for consistent, lifetime performance



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[www.curbellplastics.com](http://www.curbellplastics.com)

Curbell Plastics is a proud supplier  
of King Plastic Corporation.



## Trusted Source

Whether you build, design, manage, or own facilities, you can protect the product surface against stain and odor causing bacteria, algae and fungi by installing King MediGrade® polymer sheet products. As a trusted source for FDA-compliant polymer sheets, King Plastic has been setting the standard for quality polymer sheets for over 50 years. King Plastic Antimicrobial Technology ensures the most effective and compliant solution for safeguarding your applications.

	King Antimicrobial Technology Zinc-Based	Silver-Based	Triclosan-Based Microban
<b>Mode of Action</b>	Physically ruptures the cell membrane	Releases ionic free radicals that react with cell DNA and disrupt the critical life processes in the cell	Releases toxic bischlorinated phenol (PBC) for consumption or cellular absorption, causing lethal mutations in the cell
<b>Leaching: Bleeding onto the user, into the water, and into the environment</b>	No leaching or migrating	Leaches for its mode of action Must leach to work	Leaches for its mode of action Must leach to work
<b>Durability</b>	Permanent	Service life 1-3 years	Service life 1-3 years
<b>Cost</b>	Economical	The cost of silver is high	Intermediate
<b>Effectiveness</b>	Bacteria, fungi and algae that cause stains and odors	Action variable based on concentration and test or use conditions	Action variable based on concentration and test or use conditions
<b>Log Reduction(1-6, 1 being the lowest, 6 being the highest)</b>	4 on 24 hour test & 2 hour test	1-2 on a 24 hour test	2 on a 24 hour test
<b>Distribution</b>	World wide	Varies by company	Not accepted or available in certain areas of the world

\*For bacteriostatic, fungistatic, and algistatic properties. This product is exempt from registration under 40 CFR 152.25(a). King Plastic Antimicrobial effectiveness verified by ISO and ASTM standards. This product does not protect users or others from disease-causing bacteria. Always clean this product thoroughly after use. 99.99% effective inhibition rate has been achieved using standardized test methods of microorganism growth versus untreated controls in lab testing.