



King Plastic Corporation

## **King CuttingColors® Now with Antimicrobial Technology FAQ**

### **What is King CuttingColors®**

King CuttingColors® is the solid, color-coded polymer sheet for food applications with an advanced antimicrobial technology to produce a more effective application compared to our formerly untreated cutting board polymer sheet.

King CuttingColors® with antimicrobial technology is made entirely from FDA and made with USDA approved material. It is NSF listed to meet requirements of commercial food processing operations for direct and indirect food contact.

### **What type of finish?**

Matte finish on both sides.

### **What colors are available?**

King CuttingColors® is available in 5 standard colors: CB Blue, CB Red, CB Green, CB Yellow and CB Tan.

### **Can you custom color match?**

Please call Customer Service at 941.493.5502.

### **What sizes are available?**

King CuttingColors® standard sheet size is 48" x 96". Standard gauges are 1/2" and 3/4". Custom sheet sizes and gauges available upon request. Please call Customer Service at 941.493.5502.

### **What are the Features and Benefits of King CuttingColors®**

- Advanced antimicrobial technology is EPA registered
- NSF Listed
- BPA Free, raw material does not contain BPA's or Phthalates
- Made in USA
- Easy to clean
- Dishwasher safe
- Environmentally friendly, recyclable, smart, sustainable



- Easy to fabricate
- Will not dull knives like wood cutting boards

## How to sell against competing antimicrobials i.e silver, triclosan?

Silver and Triclosan both leach a toxin into the environment. They must leach their active ingredient and the microbe must metabolize (ingest) the “poison” to be effective. This mode of action can lead to environmental contamination, and resistant and adaptive organisms. By contrast, King Plastic’s advanced antimicrobial technology is non-leaching and non-migrating. The advanced antimicrobial technology disrupts the cell wall of a microbe, and is not depleted over time. It is an environmentally preferable solution to controlling microbes. (SEE CHART).

	King Advanced Antimicrobial Technology Zinc	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	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

## Has King Plastic’s Advanced Antimicrobial Technology been tested for efficacy?

King CuttingColors® Advanced Antimicrobial Technology has been tested at third party microbiology labs using ASTM E2149 and JIS Z2801 to verify its effectiveness against representative gram positive and gram negative bacteria. 99.9999% effective inhibition rate has been achieved using standardized test methods of microorganism growth versus untreated controls in lab testing.



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### **Is King Plastic's Advanced Antimicrobial Technology registered with the EPA?**

It is exempt from EPA registration under 40 CFR 152.25(a) (commonly known as the "treated article exemption"). The active antimicrobial ingredient in King CuttingColors® is EPA registered and accepted for use in polymers and plastics.

### **Why can't King Plastic say the final products made from King CuttingColors® kill 99.9999% of bacteria, etc.?**

To make these claims extends far beyond what is allowed under the treated article exemption – protection of the article (King CuttingColors® polymer sheet) from food-borne microorganisms, thus extending the life of the material. To make these claims, King CuttingColors® itself would need to be EPA registered. The EPA reserves those types of kill claims for sanitizers, disinfectants, and sterilants. Per EPA regulation, solid surfaces can contain an antimicrobial, but only for the protection of the product itself. Making 99.9999% claims implies a public health claim. EPA does not want people thinking that because the cutting boards are antimicrobial, for instance, perhaps they don't have to clean them. Standardized cleaning and disinfection are still the best practice. King CuttingColors® is a durable material with antimicrobial technology for protecting the cutting board against stain and odor-causing microorganisms. This product does not protect users or others from food-borne bacteria. Always clean thoroughly after use. The 99.9999% effective inhibition rate has been achieved using standardized test methods of microorganism growth versus untreated controls in lab testing.

### **Why doesn't it extend such protection to user?**

Extending the claims to public health organisms (E.coli, MRSA, etc.) would require EPA registration. Extending those claims to protection of people (i.e. reducing the spread of a disease), would make the plastic sheet a drug or device subject to FDA requirements. We are not claiming to protect people. We are protecting our surfaces. Claiming to protect a persons' health is in the realm of disinfectants and sanitizers (EPA) and drugs (FDA). Regular cleaning and disinfection is still the best practice for keeping people healthy. King CuttingColors® is a durable material with antimicrobial technology for protecting the cutting board against stain and odor-causing microorganisms.



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## **How Can I Fabricate and Finish it?**

Use standard woodworking tools: table saws, table routers, drills, blades and bits. Carbide router bits with two to four flutes are recommended.

## **How to Clean and Maintain?**

- Scrub the material with a strong bristle brush and professional strength detergent to remove any detritus or stains. Rinse with hot water.
- Sanitize with a ten percent bleach solution. Rinse thoroughly with cold water.
- Dishwasher safe. Remove from the dishwasher before the drying cycle for the best result. Allow to air dry.

## **How to Care and Store?**

- Store the sheets flat on a level surface
- Keep away from teak oil and other products that can stain the finish
- Keep away from heat sources that exceed 180° F
- Remnants may be eligible for recycling; contact your distributor or King Plastic Corporation for details

## **What are common applications?**

- Buffets
- Butcher Blocks
- Commercial and Consumer Cutting Boards
- Food Preparation and Packaging
- Food Processing Components
- Salad Bars

## **Does King CuttingColors® expand and contract?**

Yes, at a rate of  $6 \times 10^{-5}$  in./degree F, changing approximately 1/32 inch for every foot of length or width over a 40° temperature change.

## **Is King CuttingColors® FDA approved?**

Yes. FDA 21 CFR 177.1520.



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**Is King CuttingColors® NSF Certified?**

Yes, NSF Standards 2 and 51.

**Can I use a CNC machine?**

Yes.

**Will the material produce dust when fabricating?**

No, only small shavings that can be recycled.