

# Biomaster

## Antimicrobial coffee cups

Reusable coffee cups save money and are good for the environment, but they also provide the ideal environment for moisture-loving and potentially dangerous micro-organisms to thrive.

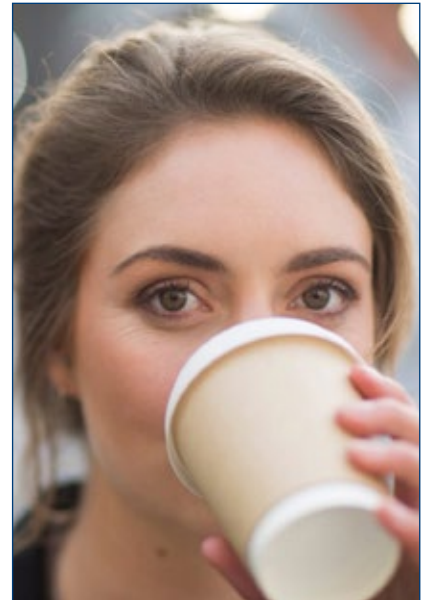
### The problem

**Independent studies have shown that reusable vessels used for hot drinks are a breeding ground for bacteria.**

- The National Infection Service at Public Health England has said that bacteria can grow in both the container and where liquid builds up around the lid and the mouth-piece.
- A study by Aston University has found that unless a standard hot drinks cup is rinsed immediately after use, the bacterial load on the surface increases significantly.
- The problem is exacerbated in hot drinks containers where dairy and sugar may be present, providing the perfect food source for bacteria.
- Research by the University of Arizona has found that 90% of hot

drinks cups and mugs in the workplace carry dangerous bacteria, with 20% of these having traces of faecal matter.

- The same study also found that half of the bacteria found on reusable containers had the potential to harm, including gram-positive cocci, which can lead to skin infections, pneumonia or even blood poisoning.
- The popularity of reusable coffee cups has exploded in anticipation that governments may impose a "latte tax" on disposable cups. Major coffee chains have also now started offering special discounts on drinks to incentivise the use of reusable cups, but coffee shops are legally allowed to refuse to refill a coffee cup that is not clean.



“ Bacteria can easily grow on the inner surfaces of a reusable coffee cup unless it is washed after use.

Antimicrobial technology built into the drinking vessel significantly reduces the opportunity for bacteria to grow. ”



*Anthony Hilton,  
Professor of Applied  
Microbiology  
Aston University.*

### Our solution: the Biomaster protected coffee cup

**The Biomaster antimicrobial coffee cup can be reused more safely.**

- Treated with technology proven to inhibit the growth of all types of harmful bacteria.
- The active antibacterial agent is built into the cup during the manufacturing process, so the protection lasts for the useful lifetime of the product.
- Biomaster antimicrobial protection is completely safe and won't affect the taste

or smell of the cup contents in any way.

- In an independent test undertaken by Aston University, cups treated with Biomaster antimicrobial technology were shown to deliver an effective reduction in the residual level of bacteria on the external and internal lid and on the inside of the cup.
- Biomaster is proven to inhibit the growth of most common types of bacteria by more than 99%.

### Where can I buy an antimicrobial coffee cup?

Coffee with inbuilt Biomaster protection are currently available from several outlets.

For more information visit [harfieldtableware.co.uk](http://harfieldtableware.co.uk) or [pokito.net](http://pokito.net) or our website [addmaster.co.uk/biomaster](http://addmaster.co.uk/biomaster) or email us at [info@addmaster.co.uk](mailto:info@addmaster.co.uk).



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### Antimicrobial product protection for the lifetime of your cup

Biomaster antimicrobial technology provides durable 24-hour product protection against the growth of harmful micro-organisms on the surface of your drinking vessel. Effective for the lifetime of the treated article, Biomaster does not affect the characteristics of the material in any way and offers a low cost added benefit to your design.

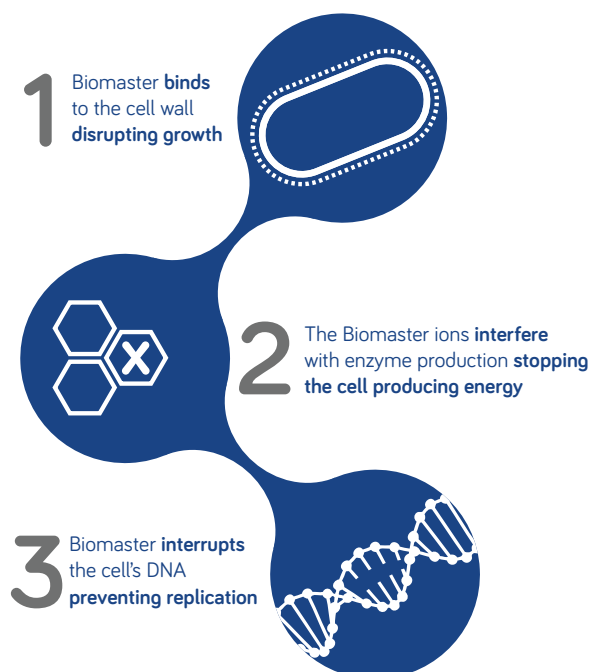
### How does Biomaster technology work?

Biomaster is based on silver ion technology and has three modes of action.

When micro-organisms come into contact with a Biomaster protected drinking vessel, the silver ions prevent them from growing, producing energy or replicating; therefore, they die.

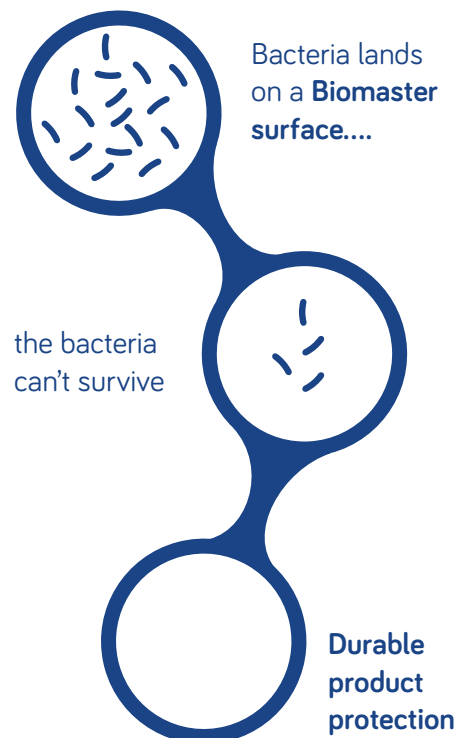
Biomaster is incredibly durable, long lasting and highly active. When incorporated into the surface material, Biomaster becomes an integral part of the product and does not leach or migrate.

You can't see, smell or taste Biomaster. It is entirely safe and already successful used in a number of medical, food and drinking water contact applications.



Specifying Biomaster in your supply chain is very straightforward. We can even liaise with your manufacturers to ensure the optimum addition rate is achieved without incurring unnecessary costs.

### How effective is Biomaster?



When incorporated into the material, Biomaster has been proven to inhibit the growth of micro-organisms on the surface in-between cleans by up to 99.9%.

ISO standard laboratory testing has shown that Biomaster protected products are effective against a range of harmful bacteria, including Methicillin-resistant *Staphylococcus aureus* (MRSA) and Vancomycin-resistant *Enterococcus* (VRE).