



# antibacterial products

## MORE HYGIENIC OFFICE PRODUCTS FROM ANTIBACTERIAL PLASTIC

ICO's antibacterial product range offers a unique solution in all environments where ballpoint pens and counter pens are used by many people. It guarantees to reduce risk of infection and stops the spread of bacteria.

The plastic parts of ICO antibacterial products contain Biomaster silver ions that provide antibacterial protection (biocidal active substance: silver phosphate glass).

Silver has been used for centuries to fight bacteria. Let us think of silver cutlery, or silver coins dropped into jugs of drinking water.

ICO antibacterial writing instruments and office supplies have certified antibacterial qualities, eliminating 99,99% of bacteria on a surface within 24 hours.



## THE BIOMASTER SILVER IONS MANIFEST THEIR EFFECT IN THREE STEPS:



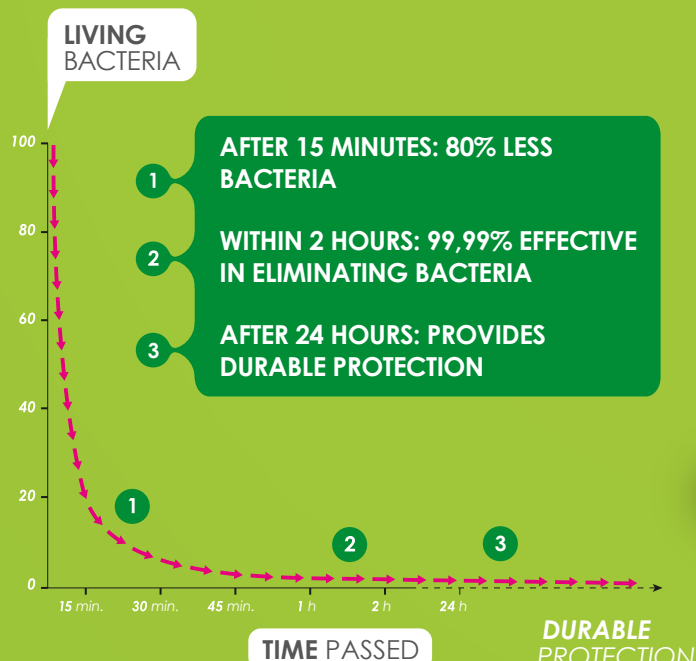
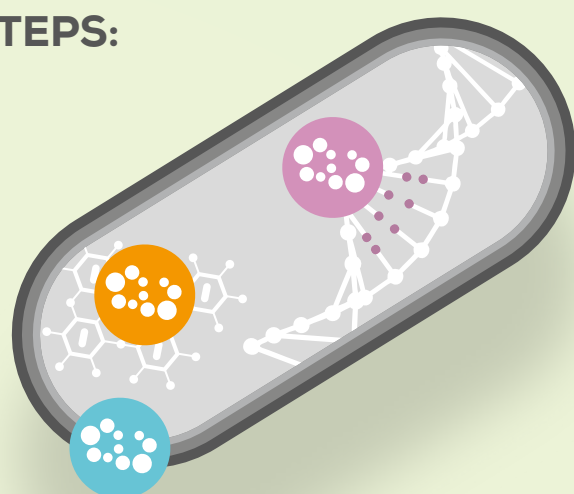
The silver ions bind to the cell wall, weakening it, thereby preventing the multiplication and spread of bacterial cell.



The silver ions disrupt the function of the energy producing enzymes of bacterial cells, thereby stopping the cell producing energy.



The silver ions disrupt the DNA chain of the bacterial cells, preventing cellular multiplication and the formation of new cells.



## FREQUENTLY ASKED QUESTIONS

### How effective are the Biomaster silver ions used for ICO antibacterial products?

Very. Due to the silver ions, a 99,99% prevention of the spread of bacteria is guaranteed.

### Is the Biomaster silver ion used for ICO antibacterial products safe?

Yes. The silver ion based „technology” has been known for centuries, with no harmful effects. The Biomaster additive is used in the medical and food industry as well as for water treatment.

### Is the Biomaster silver ion used for ICO antibacterial products certified?

Yes, continuously. The manufacturer of the Biomaster silver ion additive (Addmaster Ltd., UK) is audited according to ISO standards.

### How long does the antibacterial effect last?

The ICO antibacterial products have a life-long effectiveness. The Biomaster silver ion additive does not wear off and is not removable from the surface, as it is permanently built into the product during the manufacturing of the plastic components.

### Does the Biomaster silver ion additive cause any other effect in the products?

No. There is no visible difference. It does not have a colour, nor an odour, nor a taste.

### Does it have antibacterial effect against antibiotic-resistant bacteria?

Yes. It is proven to eliminate even antibiotic-resistant bacteria.

### Does the Biomaster silver ion additive contain nanomaterials?

No. The silver ions are not nanomaterials. The biocidal active substance is silver phosphate glass. CAS number on ECHA list: 308069-39-8, which is an approved active substance.



ANTIBACTERIAL EFFECT TESTED AND CERTIFIED BY  
INDUSTRIAL MICROBIOLOGICAL SERVICES LTD. (UK).  
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