

**JAMES
CROPPER**

EST. 1845



TECHNICAL SERVICES DOCUMENT

Docugard[®]

ANTI-MICROBIAL

TARGET SECTOR

Healthcare Documents,
Packaging, Stationery, Publishing



MANUFACTURED IN GREAT BRITAIN



Docugard®

ANTI-MICROBIAL

SILVER TREATED PAPERS PROVIDE ANTI-MICROBIAL PROTECTION

Micro-organisms are unavoidably present in the air we breathe. Bacteria and viral strains can be airborne and easily transmitted from one person to another.

Most are rendered harmless by the protective effects of our immune system - some bacteria are even beneficial. But several species of pathogens can cause serious infectious diseases.

Since 2006, James Cropper has been producing a range of innovative papers under the Docugard® brand that incorporate silver technology from Biomaster®, the UK's leading anti-microbial specialist.

Silver technology has been used extensively in health-care applications for centuries because its effectiveness against medically harmful bacteria is both important and well-recognised.

Paper is, by its very nature, difficult to clean and topical cleaners are only effective for a limited time period before cleaning needs to re-occur.

Docugard® silver treated papers provide an integrated solution that gives protection to the paper surface for the life of the product, of particular importance for products used in sensitive environments or that are subject to cross-contamination from multiple handling.

The use of anti-microbial paper technology reduces the risk of build-up of harmful organisms such as MRSA, Legionella and Norovirus 24 hours a day, 7 days a week.

APPLICATION SUITABILITY

The Docugard® silver treatment system is designed for use in applications where surface protection is a priority and where reducing risk from bacteria or viral contamination may be a consideration, such as:

- Medical Stationery
- Medical case note folders
- Healthcare leaflets
- Medical documentation
- Patient information cards
- Medical packaging
- Retail packaging
- Products subject to multiple handling

PRINT SUITABILITY

Suitable for all major print and converting processes relating to the product application.

What is Docugard®?

Docugard® is paper treated with anti-microbial silver ion technology from Biomaster which inhibits the growth of bacteria and virus strains offering product surface protection. Both paper faces are protected with the inbuilt silver ion treatment.

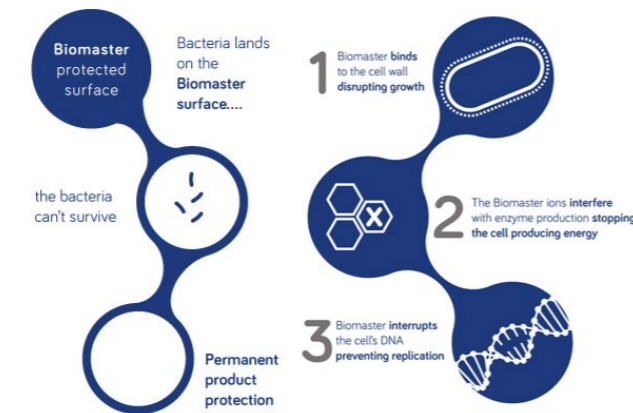
How does Biomaster protection work?

Biomaster technology has been developed to fight harmful micro-organisms. When the micro-organisms come into contact with a Biomaster protected surface, the silver ions prevent them from growing, producing energy or replicating, and therefore they die.

What is the science behind Docugard® paper?

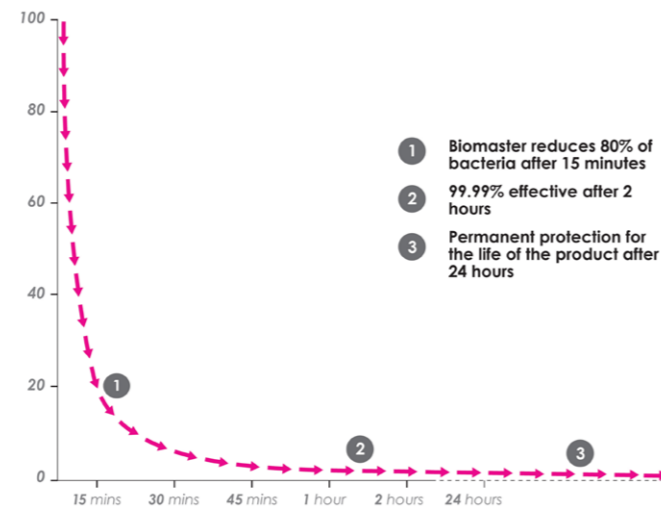
Unlike antibiotics, micro-organisms are unable to build up a resistance to the way in which silver ions disrupt their growth.

- Silver ions bind to the cell wall of the micro-organism; preventing growth
- Silver ions interrupt enzyme production; stopping the micro-organism producing energy
- Silver ions interrupt the cell's DNA; preventing DNA replication and new cell formation



How effective is silver ion technology on paper?

In tests and clinical trials the Biomaster treatment has been proven to reduce the overall level of bacteria and specific viral strains on the paper surface by 80% within 15 minutes and up to 99.99% within 2 hours achieving ISO 20743:2013.



Is silver ion technology safe?

Yes. It is based on technology recognised for centuries with no harmful effects and is used widely in medical, food and water applications.

- Non-toxic
- Phthalates free
- REACH compliant
- EN-71 compliant
- Non-leaching

What can silver treatment protect against?

Independent laboratory tests have proven the technology to inhibit the growth of bacterial and viral strains including:

- Staphylococcus aureus (MRSA)
- Salmonella
- Legionella
- Campylobacter
- E.coli
- Vancomycin-resistant Enterococcus (VRE)
- Norovirus

How long is the treatment effective for?

The silver ion treatment in Docugard® is effective for the life of the product, it is incorporated into the paper during manufacture and it cannot be removed with any amount of wear and tear. It becomes an integral part of the material.



Why did we choose Biomaster technology?

We choose to use Biomaster technology for our Docugard® papers because it offers the assurance of fast, effective, long-lasting and highly active anti-microbial protection. Our Biomaster-treated papers inhibit microbial growth making them hygienic for the life of the product.

What's the difference between anti-microbial and anti-bacterial?

An anti-microbial inhibits the growth of, or destroys harmful micro-organisms such as bacteria, viruses and moulds. An anti-bacterial specifically prevents the growth of bacteria.

Does the treatment affect a product in any way?

No. You can't see, smell or even taste it!

What happens if I over-print the product?

Print with minimal surface coverage is absolutely fine. For complete over-printing or overall coating with a varnish we recommend the addition of the treatment into the print or varnish itself. Together with Biomaster we can provide recommendations and solutions for specific conversion processes.

We can also produce varnished papers on-site with the Docugard® silver treatment.

How do I know my product has protection?

You can rest assured that when you stipulate Docugard® paper, there is a chain of custody in production to verify the legitimacy of our material.

If required, certification can be organised via an independent laboratory.



Can silver ion technology safeguard against Coronavirus?

Biomaster has yet to be tested against Covid-19 on product surfaces and currently there is no method available by which it could be tested.

However, the microbiology firmly suggests that if Biomaster is effective against Norovirus on porous surfaces such as paper (which it is), then the active agent is also likely to have an effect on the lipid coating and the essential components required for Covid-19 to function.

Covid-19 is an enveloped virus and relies on a protective lipid coating. Unlike many gastrointestinal viruses such as Norovirus which have a tough protein shell called a capsid enveloped virus, viruses with this lipid coating are relatively vulnerable and easier to destroy.

ENVIRONMENTAL CREDENTIALS



Controlled
Wood Sources



Fully Recyclable



CONEG
Compliant



Anti-Microbial



94/62/CE &
EN71-3 Compliant



REACH
Compliant
(EC No 1272/2008)



Elemental
Chlorine Free



CHP Recycling
Energy

MILL CERTIFICATIONS

ISO 14001 cert. no. EMS 57536

ISO 9001-2000 cert. no. FM 10048

ISO 50001:2011 cert. no. ENMS 623280

OHSAS 18001 cert. no. OHS 93474

FSC® STD-40-004 cert. no. TT-COC002177

PEFC/ 16-44-002 cert. no. BMT-PEFC-0252

Manufactured in Great Britain



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