



## **ANTIVIRAL TECHNOLOGY CLEANS UP PACKAGING HYGIENE CONCERNS**

*Britons now consider hygiene of packaging as their number one concern as a result of Coronavirus*

According to new research, hygiene is now the number one concern for people when it comes to packaging.

In the wake of COVID-19, consumers are looking for confidence that the packaging they come into contact with is as safe as it can be.

More than three quarters<sup>1</sup> of Britons now consider the hygiene of the products and packaging they interact with and almost half<sup>2</sup> of us believe those concerns for safety and hygiene will remain after the pandemic.

The new research has been commissioned by specialist papermaker James Cropper as it extends testing on the anti-viral effectiveness on its packaging papers that contain PaperGard antiviral and antibacterial technology.

The results show that PaperGard is now proven to be effective at reducing the presence of SARS-CoV-2, the virus that causes COVID-19, on the surface of paper. PaperGard protected papers reduced the viability of the viral strain by over 95% in only 15 minutes, and by 99.9% within 2 hours when tested against ISO 18184, an antiviral test on porous surfaces.

The increasing need to offer consumers more reassurance means brands are looking for ways to reimagine their products and their packaging. PaperGard utilises technology that is built into the paper during manufacture, without affecting its appearance. The latest test results demonstrate that there need not be a compromise of hygiene over beauty in the packaging solutions available to brands.

Recent studies show Coronaviruses can remain viable on metal, glass, wood, textiles, plastic and paper surfaces from several hours to a number of days<sup>3</sup>. With in-built antiviral and antibacterial product protection, the microbial load on a surface is reduced.

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<sup>1</sup> 77%

<sup>2</sup> 45%

<sup>3</sup> New England Journal of Medicine: [telegraph.co.uk/health-fitness/body/does-coronavirus-live-different-surfaces/](https://www.telegraph.co.uk/health-fitness/body/does-coronavirus-live-different-surfaces/)



**Richard Bracewell, marketing and technical director at James Cropper says:** "Consumers' attitudes towards products and packaging have changed and, as a supplier of specialist papers to the packaging sector, we have to adapt our solutions accordingly. PaperGard has been part of our range since 2006 but since the pandemic the demand for this kind of protected paper packaging has increased. These recent tests clearly demonstrate the effectiveness of the product on the paper surface against SARS-CoV-2, the enveloped virus that is responsible for Covid-19."

PaperGard incorporates Biomaster® antimicrobial technology from the UK's leading additive specialist, Addmaster. Biomaster is highly effective against the growth and proliferation of bacteria and enveloped viruses on porous surfaces such as textiles and paper.

**Addmaster regulatory affairs manager Lesley Taylor explains:**

"Enveloped viruses are relatively vulnerable, and where it is practicably possible to use disinfectants one should do so. Simple treatments such as soap and water are also very effective. However it is often impractical to use disinfectants and even soap and water. In these situations the PaperGard protected paper, with its antimicrobial technology, limits contamination of the paper surface whilst maintaining the qualities of the paper. "

**Richard Bracewell, marketing and technical director at James Cropper continues:**

"This innovation addresses the increased demand for hygienic surfaces. The silver ions present within the paper continually work to prevent the growth of the micro-organisms, effectively controlling surface contamination for the lifetime of the product and maintaining the integrity of the paper."

Whilst PaperGard has been regularly used for the production of medical and healthcare documents this technology can be applied across the portfolio of paper products manufactured by James Cropper, including papers and boards for premium packaging or greetings cards that are subject to a lot of handling.

How PaperGard works:

1. Silver ions bind to the cell wall of the micro-organism; preventing growth
2. The silver ions interrupt enzyme production; stopping the microbe from producing energy



3. Silver ions interrupt the cell's DNA; preventing DNA replication and new cell formation
4. This process does not allow the micro-organisms to develop any resistance

-ends-

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NOTES TO EDITORS It is recommended to remove notes to editors in regards the technology

### **About PaperGard**

#### **How effective is silver ion technology on paper?**

The latest testing with SARS Cov-2 (the COVID-19 virus), using the ISO 18184 testing method to determine anti-viral activity, shows papers containing the PaperGard technology were proven effective at reducing the viability of the viral strain by over 95% in just 15 minutes.

In tests and clinical trials PaperGard with Biomaster has been proven to reduce the overall level of MRSA and E.Coli bacteria on the paper surface by up to 99.99% using the ISO 20743 testing method to determine anti-bacterial activity conducted in an independent, internationally recognised laboratory.

#### **Can silver ion technology safeguard against Coronavirus?**

We have data showing that PaperGard (>95% inactivation within 15 minutes) is highly effective against SARS Cov-2, the virus responsible for Covid-19, on the paper surface.

PaperGard antimicrobial technology is effective 24/7 for the lifetime of the treated article. PaperGard can therefore complement current hygiene guidance offering additional product protection.

#### **What can silver treatment protect against?**

Independent laboratory tests have proven the technology to inhibit the growth of bacteria and viruses including:

- Staphylococcus aureus (MRSA)
- Salmonella
- Legionella
- Campylobacter
- E.coli
- Vancomycin-resistant Enterococcus (VRE)
- Norovirus
- Feline Coronavirus
- SARS Cov-2

#### **What is the science behind PaperGard paper?**

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

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

#### **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



**How long is the treatment effective for?**

The silver ion treatment in PaperGard is effective for the life of the product, it is built 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.

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

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. An anti-viral specifically prevents the growth of virus strains.

**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 PaperGard silver treatment.

**About James Cropper**

James Cropper is a prestige paper innovator based in the English Lake District, supplying distinct, custom-made paper products to many of the world's leading luxury brands, art galleries and designers.

Throughout 175 years of high-quality paper production, the business has been carefully stewarded and nurtured by six generations of the Cropper family and is renowned globally for individual expertise in colour and fibre innovation.