

VHP

SECURITY PAPER



BIOGUARD

VHP Security Paper

(Paris, B42)

Title: Bioguard™

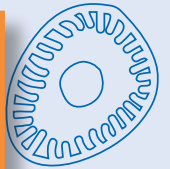
v. 2021-2022

Bioguard is a proven biocide that can be added to the paper substrate or to the post print varnish applied to paper and polymer banknotes.

The Art of Bioguard™

by
VHP Security Paper

Introducing
Permanent anti-viral
protection for banknotes



What is Bioguard™ ?

Bioguard™ is a non-toxic treatment that kills the pathogens and living organisms that can contaminate banknotes when in circulation.

The anti-viral, anti-bacterial, and fungicidal properties of Bioguard™ kill pathogens and living organisms upon contact.

Bioguard™ for banknotes is a lifetime treatment which will remain totally active as long as the treated note is in circulation.

L

J



ANTI-VIRAL



INCREASED PROTECTION

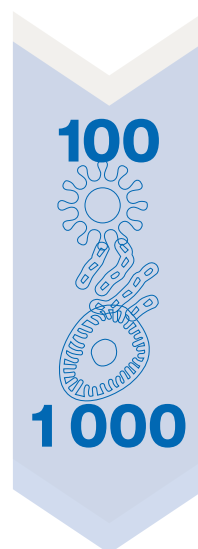
What are the benefits of Bioguard™ ?

Protect public health with Bioguard™

Tests showed that the concentration of coronavirus and other flu-type viruses on banknotes treated with Bioguard™ was reduced by between 100 and 1,000 times, when compared with untreated banknotes.

Bioguard™ also protects banknotes stored in humid conditions against the potential damage and dark discolouration that can be caused by exposure to fungi in warm and humid environments.

Bioguard™ is totally safe for human contact and the environment.



Reducing the concentration of coronavirus and other flu-type viruses on banknotes between 100 & 1,000 times

How does Bioguard™ : work ?

How is Bioguard™ applied to banknote paper?

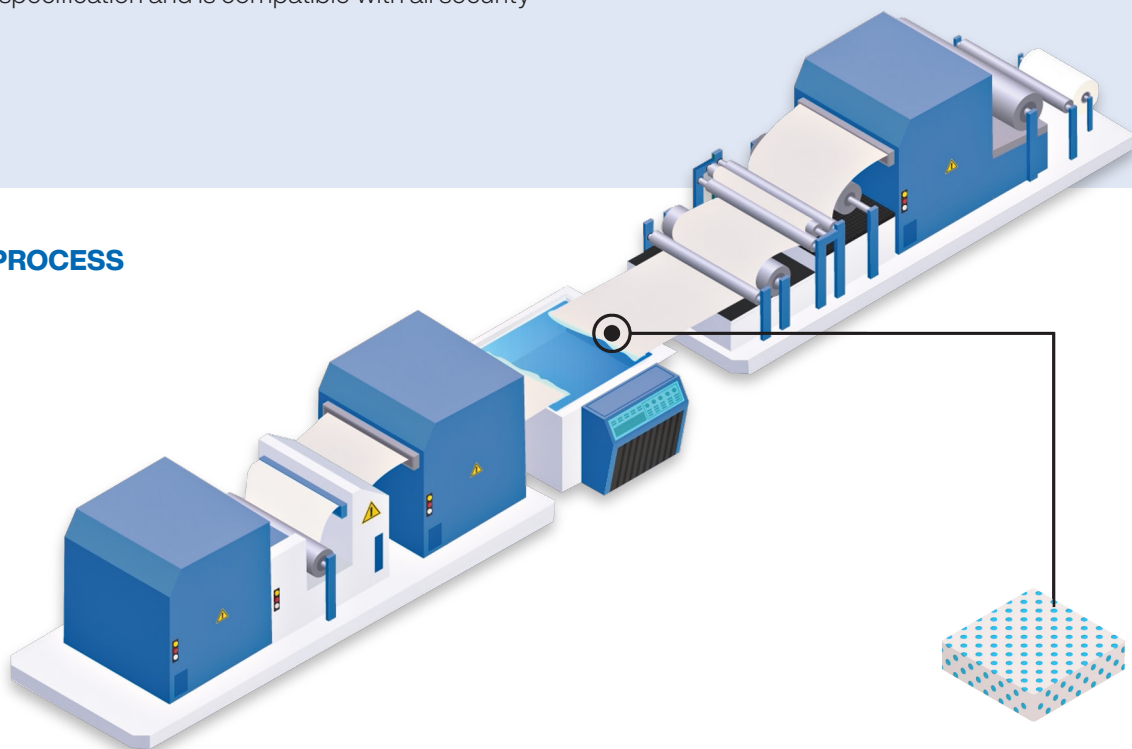
Integral protection

During the paper production process, liquid Bioguard™ treatment is added to the sizing press, providing integral biocidal protection in depth into the paper.

Versatile application

Bioguard™ is transparent and can be added to any paper substrate. It has no visible, physical or chemical impact on paper specification and is compatible with all security features.

PAPER PROCESS



How is Bioguard™ applied to printed banknotes?

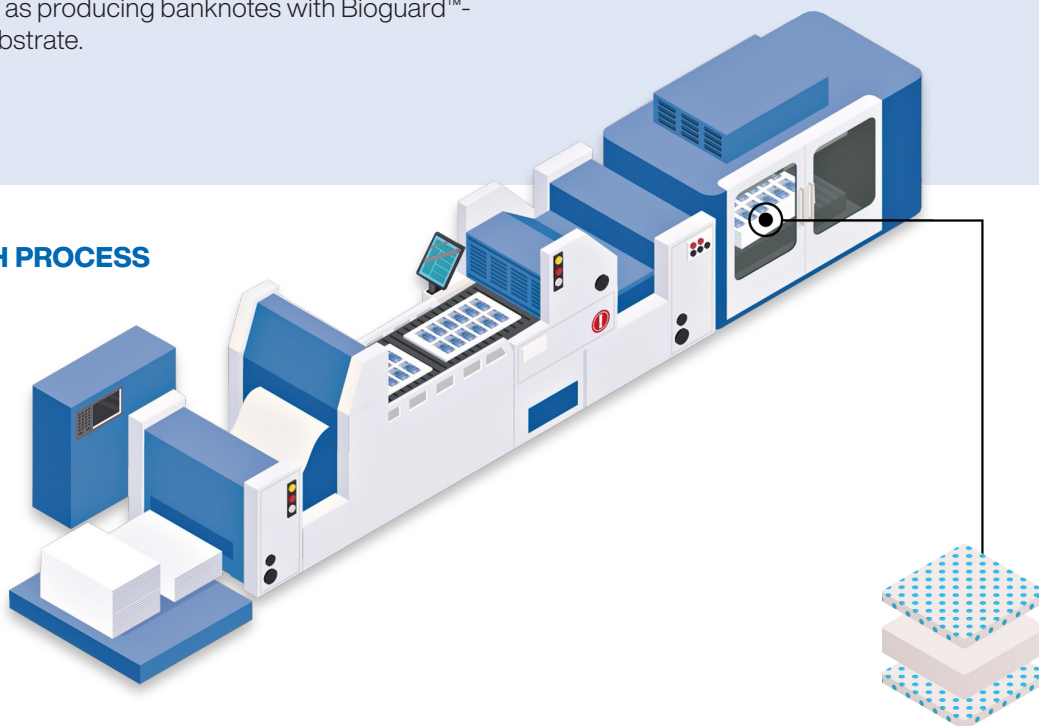
Varnished printed banknotes can also be treated with Bioguard™ to provide permanent protection.

By mixing transparent Bioguard™ additive with varnish and applying the later at the post-print, final production stage.

Tests by independent international laboratories as per ISO standard procedures, confirmed that treating banknotes with Bioguard™ varnish offers the same biocidal protection as producing banknotes with Bioguard™-treated substrate.

Bacterial and viral-originating pandemic come and go and will continue to do so, while others surface annually. With Bioguard, for a marginal incremented cost, the general public will benefit from cleaner and safer banknotes.

VARNISH PROCESS



Why choose Bioguard™?

Banknotes are one of the most ubiquitous and widely handled products in society – and most transactions involve the physical transfer of notes from one person to another.

Numerous studies have confirmed that circulating banknotes can contain high load of pathogenic bacteria, viruses, fungi and other living micro-organisms.

VHP Security Paper's biocidal Bioguard™ treatment supports Central Banks in the protection of public health with the prevention of potential pathogens transmission via banknote exchanges. In the arsenal of barrier gestures Bioguard™ is a key measure to adopt.

Bioguard™ is fully compatible with all paper, synthetic substrates and varnishes and offers a cost-effective way to:

- Safeguard public health
- Preserve confidence in your currency
- Increase banknote longevity

Who can use Bioguard™?

To support the global fight against the spread of coronavirus infection and to protect public health worldwide, the license to use Bioguard™ is available for all reputable paper makers from the team at VHP Security Paper. Employ the latest technology to sanitise your banknotes. Contact us today.

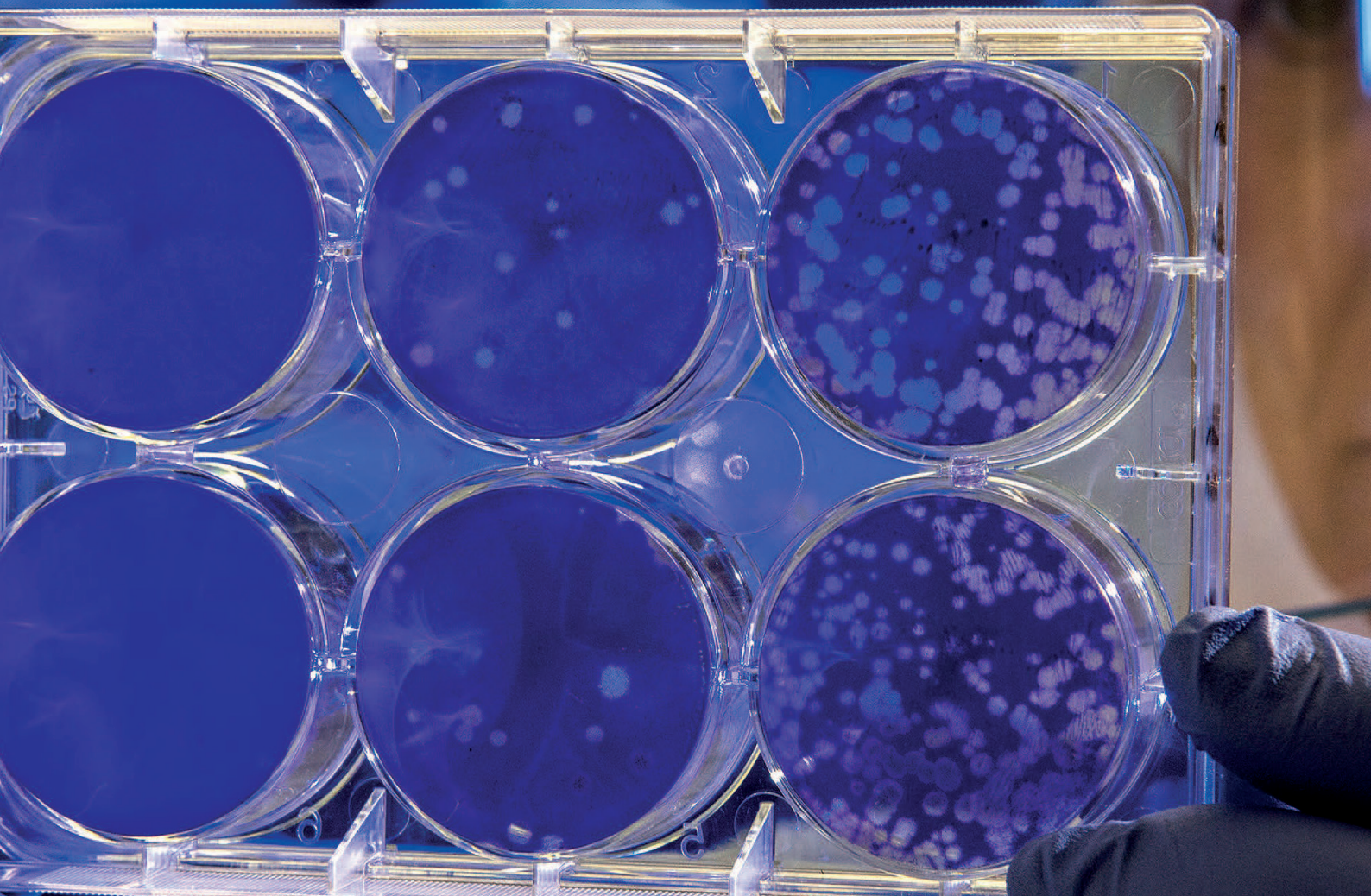
Thanks to Bioguard™, for a marginal additional cost, the general public benefits from banknotes that are both cleaner and more secure.



INCREASE BANKNOTE
LONGEVITY



SAFEGUARD
PUBLIC HEALTH



Did you know? - the origins of Bioguard™

As many other high-value contributions to the field of microbiology, Lyon is home to the invention of Bioguard™.

It is in Lyon that the famous Marcel Mérieux, disciple of Louis Pasteur, founded his eponym institute which later gave birth to some prominent global leading healthcare organizations such as Sanofi-Pasteur and BioMérieux, among many other inventions in the field of microbiology.

Likewise, it is in Lyon that nearby Arjo Wiggins research center collaborated with scholars from the Lyon University Hospital system (HCL) to develop a solution for durably and safely protecting banknotes from contamination with bacteria and fungi.

In 2021, it is again in Lyon that we found an ISO-certified laboratory able to precisely measure the performance of our latest Bioguard™ formulation against SARS-CoV-2 virus, responsible for the COVID-19 pandemic.

Last, but not least, since the Fall of 2021, the Auvergne-Rhône-Alpes region, of which capital city is Lyon, has mandated that all paper products, including letterhead supplies and office/photocopy paper, be Bioguard™ treated to provide anti-bacterial and anti-viral protection for employees and the general public.



Group Headquarters & Sales Office

Oberthur Fiduciaire SAS, 7, Avenue de Messine, CS 30003, 75384 Paris Cedex 08, France
Tel : +33 (0)1 42 99 77 00

www.vhpsp.com