

ANTIVIRAL FABRIC FINISH



QUALITY THAT WORKS



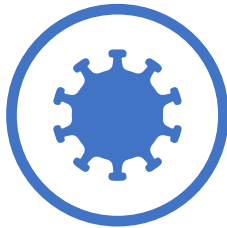
ANTIVIRAL FINISH - INDUSTRIALLY LAUNDERABLE

Viroff-tex is the new antiviral treatment made by Klopman, offering the market a powerful new tool for the fight we are all facing against COVID-19. **The finish protects garments from enveloped viruses and has been tested by a third-party authorised laboratory for ISO 18184:2019.**

Viroff-tex is a high-performance finish that also guarantees exceptional levels of antibacterial protection to fabrics and, therefore, to the wearer. It's specifically designed to meet the requirements of critical hygiene applications such as healthcare and related services. The fabric is treated with Sanitized® branded antimicrobial treatment.

Our top-selling fabrics Charlotte and Superbandmaster also ensure comfort to the wearer and maximum breathability. **Klopman's Viroff-tex finish can be potentially applied to all Klopman fabrics, guaranteeing the right product for every working environment.**

BENEFITS



Coronavirus protection
even after repeated industrial
washing (tested according
to ISO 18184:2019)



95% efficiency against
viruses tested on two of our
top selling fabrics
washed at 75°C



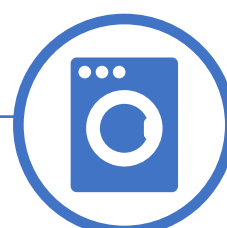
Superb comfort for
wearers in all conditions,
offering optimal hygiene
protection and functionality



**Effective antibacterial
protection**
through new-generation
silver technology



Also works as a built-in
deodorant by reducing
bacteria



Our fabrics can be washed
according to norms:
ISO 6330 – domestic wash
ISO 15797 – industrial wash.



Fabrics treated with Sanitized® - trademark
of SANITIZED AG, Switzerland, and a globally
recognised sign of quality for antimicrobial
hygiene function and material protection.



Fabrics Oeko-Tex® Class 2
certified and tested for
harmful substances

EXCEPTIONAL PROTECTION: TESTS PROVE US RIGHT

Klopman fabrics with Viroff-tex treatment are tested according to the **International Standard ISO 18184** for their antiviral characteristics.

Under experimental conditions, SUPERBANDMASTER WASHED X30 shows an antiviral activity associated with a logarithmic reduction of $1.40 \log_{10}$ (96.02%) under the ISO 18184:2019 protocol. It is a similar situation for CHARLOTTE WASHED, which ensures an antiviral activity associated with a logarithmic reduction of $1.30 \log_{10}$ (94.99%). For both fabrics, the results in unwashed conditions ensured an efficacy of 99.9%.

These two fabrics have also been tested for people's safety, judged to be dermatologically non-irritating, and for environmental sustainability according to Oeko-Tex® Class 2 standards.



Klopman antibacterial/antiviral fabrics: 'shield' effect.

The continuous action of the antibacterial agent forms a shield around every single fibre, inhibiting the growth of a wide spectrum of bacteria ensuring also an odour-free property.



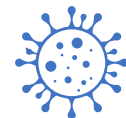
INNOVATIVE TECHNOLOGY AGAINST VIRUSES AND BACTERIA

Quick Check

Difference between
bacteria and viruses



Bacteria

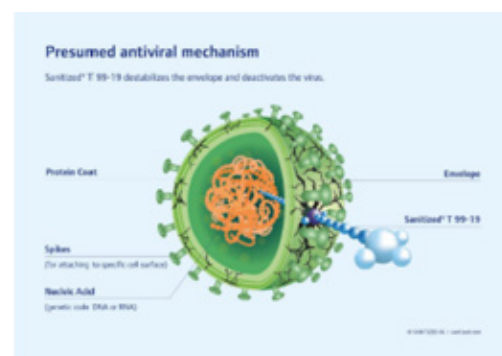
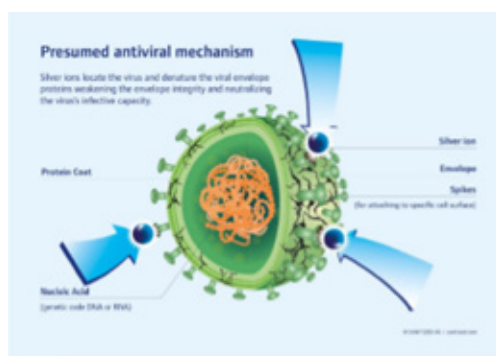


Virus

	Bacteria	Virus
Are really tiny	✓	✓
Can make you sick quickly?	✓	✓
Multiply without other cells	✓	✗
Antibiotics are effective	✓	✗
Are living things	✓	?

During the COVID-19 crisis, most people have paid closer attention to protecting themselves against infections. Good hygiene, protection and safety have become an omnipresent need worldwide.

This protection was focused on viruses, but the measures can protect against bacteria. Klopman Viroff-tex treatment is proven effective against gram-negative and gram-positive bacteria as well as viruses and other microbes.



OUR TESTED FABRICS

Fabric	Weight	Blend	Finish	Weave
Charlotte	180 g/m ²	50% Polyester - 50% Cotton	Antiviral Crease resist	2x1 Z Twill
Superbandmaster	210 g/m ²	65% Polyester - 35% Cotton	Antiviral Crease resist	2x1 Z Twill

MAIN USERS

- Hospital staff
- Staff of extended care units
- General doctors
- Ambulance operators
- Dentists
- Physiotherapists
- Aircraft and cruise ship personnel
- Hotel and restaurant staff
- School (school aprons)





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