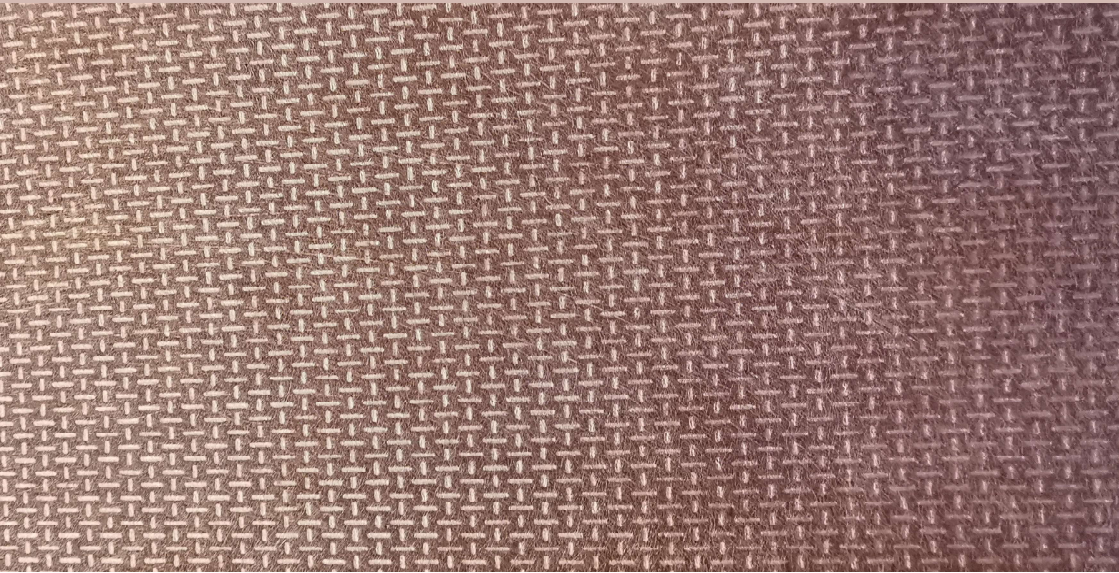




Expert in yarn and fiber specialities.

ANTIVIRAL PROTECTION

# COPPER COATED TEXTILES



## ANTIVIRAL SOLUTIONS WITH SWICOFIL, EXPERT IN PROTECTIVE YARN AND FABRIC SPECIALITIES

Excessive virus outbreaks and global pandemics can occur at anytime, at anyplace. It is thus of importance to take precautions to not only ensure everyone's safety but also to prevent infrastructures like hospitals from failing due to demand exceeding capacity.



### ANTI VIRAL PROTECTION BY COPPER

Copper, the antiviral, antibacterial and fungicidal metal for when you want ultimate protection from bacteria or viruses of all kind. Amongst others, copper eliminates viruses belonging to the SARS-COV family. Recent studies also show that copper also is effective in terms of the novel coronavirus SARS-COV2, known to cause COVID19.

#### **ARE ANTIVIRAL AND ANTIBACTERIAL THE SAME?**

Bacteria are small, single cell, living organisms. Viruses on the other hand are not organisms. They require a living host cell as they only carry nucleic acids within them (which then control the functionality and behaviour of the host cell). Viruses do not contain not any other biologically crucial functionality themselves like energy production.

#### **WHICH MATERIALS ARE ANTIVIRAL?**

There are several materials and ingredients that are antiviral. Most of them have been specifically designed for antiviral applications. Amongst other, copper is antiviral. What the underlying molecular mechanism is, is still under investigation.

#### **IF A VIRUS IS NOT ALIVE, HOW CAN ONE KILL IT?**

The underlying similarity with of all the active ingredients is to identify the proteins of the virus. Some antivirals focus then e.g. on offering fake building blocks when the virus is in reproduction stage.

## ANTIVIRAL SWICO-COPPER PROTECTIVE TEXTILES

	<b>RIP STOP</b>	93 gr/m2 copper-silver plated Polyamide, corrosion proof.
	<b>PLAIN WEAVE</b>	82 gr/m2 pure copper coated plain weave.
	<b>NON WOVEN</b>	95 gr/m2 copper plated non woven with protection coating.
	<b>NON WOVEN</b>	Self adhesive copper fabric, cut into pieces (10 x 8 cm).
	<b>YARNS</b>	Covered by plasma metalization, for easy processing into fabrics of all kinds.

... as well as pure copper wire, copper blends with PET and more. Contact us for the full product range.

## FIELDS OF APPLICATION

Antiviral SwicoCopper protection textiles are designed for the everyday application in order to protect you and your loved ones from virus contractions of all kinds.

- **OUTER MATERIAL**  
Non wovens for antiviral outer material in gloves or scarfs.
- **MEDICAL PROTECTIVE CLOTHING**  
Antiviral rip stop weave for the lining layer of breathing masks or shoe covers.
- **COVER FOR HANDLES**  
The precut non wovens are ideally suited for antiviral covers of door handles, in public transportation and wherever you feel the need of further protection

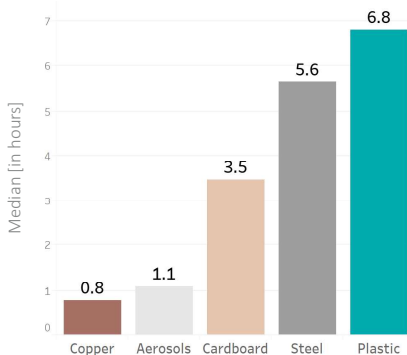
Please note that the application of copper textiles does not replace a good hygiene like regular, intense hand washing.  
Constant exposure to copper is toxic.

## EFFICACY OF COPPER ON CORONAVIRUSES

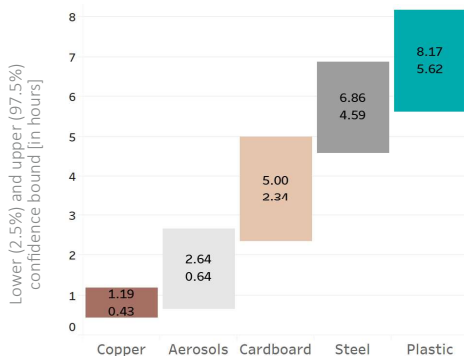
Copper has been scientifically proven to be effective against coronaviruses, like the viruses related to respiratory diseases SARS and MERS <sup>1</sup>. A recent study also shows copper's effectiveness on the new coronavirus SARS-COV2 which causes COVID19 <sup>2</sup>.

A certain amount of virus was planted onto different materials. After 4 hours, no viable virus could be found on the copper surface anymore. For comparison: the virus was still detectable after 24 hours on cardboard or 48 hours on stainless steel. Also half-time life shows the antiviral properties of copper:

HALF-TIME LIFE OF SARS-COV-2 [IN H] <sup>2</sup>



95% CONFIDENCE INTERVAL OF HALF-TIME LIFE FOR SARS-COV-2 [IN H] <sup>2</sup>



<sup>1</sup>: <https://www.sciencedaily.com/releases/2015/11/151110102147.htm>

<sup>2</sup>: <https://www.nejm.org/doi/10.1056/NEJMc2004973>

## CONTACT US

Are you looking for antiviral textiles? Are you in the fight against viruses? Contact Swicofil, your expert in yarn and fiber specialities for antiviral solutions:

Web: [www.swicofil.com](http://www.swicofil.com)  
Mail: [swicofil@swicofil.com](mailto:swicofil@swicofil.com)  
Tel: **+41 41 267 34 64**