



Kills **99.9%** of Bacteria

The openness of the fabric is 0.13 μm , coronavirus is about 0.7-0.14 μm in size,
with silve ion it attract negative ion to trap those small things

Technical Service Report

For the Attention of:
Ref.:



Company:

Material: PES knitted fabric with **SILVERPLUS** finish
 order N°: SU'15Lot 2
 delivery to: Elegant Team
 article N°: S-100410-1+RS,
 100 % Polyester S/J Mesh
 58-60 x125±5% GSM
 colour: 3021 Bright Pumpkin
 quantity: 1000 y

Subject: assessment of the antibacterial effects

Tests and Results:

Labor-Nr.: KS 142	<p>Antibacterial Activity Test method: ASTM E 2149-10 mod., dynamic shake flask test room temperature, 24 h Bacteria contact: Test strain: Staphylococcus aureus (ATCC 6538) *)</p> <p>Reduction of Bacteria</p>
<p><small>No. for external testing BTS</small> 7801</p> <p>PES knitted fabric with SILVERPLUS finish order N°: SU'15Lot 2 delivery to: Elegant Team article N°: S-100410-1+RS, 100 % Polyester S/J Mesh, 58-60 x125±5% GSM colour: 3021 Bright Pumpkin quantity: 1000 y</p>	<div style="border: 2px solid red; padding: 5px; display: inline-block;"> 99.87 % </div>
Lab control:	no reduction of bacteria, but increase of titre

*) The bacteria strain *Staphylococcus aureus* is a gram-positive, dermal bacteria on the human skin. Sweat is the nutritional basis for bacteria. When utilizing this nutritional basis volatile decomposition products (e.g. butyric acid) which have an unpleasant smell are set free. As modern garments readily absorb and transfer the sweat, this procedure takes place preferably on and in the textile. All textiles are ideal living spaces for bacteria.

With **RUCO-BAC AGP** this unpleasant smell will be inhibited. If necessary, silver ions with antimicrobial effect of **RUCO-BAC AGP** are set free from a micro-scale titanium dioxide deposit. Their silver-specific, triple mechanism prevents the formation of bacteria-related odour on the textile.

Note: Presentation of data should not be construed as a public health claim.

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Tests and Results:

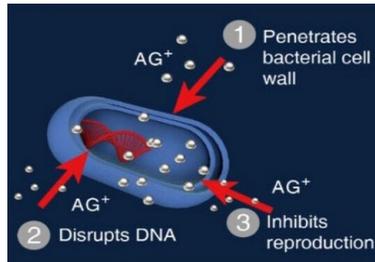
Labor-Nr.: KV 274				<p>Antibacterial Activity Test method: ASTM E 2149-10 mod., dynamic shake flask test room temperature, 24 h Bacteria contact: Test strain: Staphylococcus aureus (ATCC 6538) *)</p> <p>Reduction of Bacteria - % -</p>	<small>No. for external testing BTS</small>
knitted fabrics with SILVERPLUS finish					
Order	article	colour	order quantity		
SU'15 lot 1	S-0815112-1	1120 Aquatic Blue	2325y	>99.99	7717
SU'15 lot 1	S-0815112-1	2081 Azalea Red	2143y	>99.99	7718
00032894	S041911-1	1127 Clasic Blue	5383y	>99.99	7719
00032894	S041911-1	6032 Dark Steel	7150y	>99.99	7720
00032894	M0819-L-1	1010 Night Blue	2214y	>99.99	7721
00032894	M0819-L-1	3021 Bright Pumpkin	3035y	>99.99	7722
00032894	M0819-L-1	6032 Dark Steel	5235y	>99.99	7723
14-13636-JW	S101211-1	4011 Parrot Green	1000y	99.94	7724
14-13636-JW	S101211-1	6032 Dark Steel	2500y	>99.99	7725
14-13636-JW	M11036-1	1081 Turquoise	4000y	>99.99	7726
14-13636-JW	M11036-1	6032 Dark Steel	5000y	>99.99	7727
Lab control:				no reduction of bacteria, but increase of titre	

Process of break down



Number : TWINC00873838

Test Conducted :



1. Anti-Bacterial Activity Test (Quantitative):

As per standard test method ASTM E 2149-13a.

Test Culture : Methicillin Resistant *Staphylococcus aureus* (ATCC 33591)
 Test Specimen : Submitted Sample (1 gram with 50 ml Working Dilution Of Bacterial Inoculum Per Trial)
 Buffer Solution : Phosphate Buffer
 Broth Media : Tryptic Soy Broth
 Wetting Agent : 0.01% DC Q2-5211
 Contact Time : 24 Hour ±5 Mins
 Incubation Temperature : 35±2°C
 Incubation Period : 24 Hours
 Agar Medium : Plate Count Agar

Result:

Name Of Test Bacteria (Strain Number)	<i>Methicillin Resistant Staphylococcus aureus</i> (ATCC 33591)
Initial Count	1.78 x 10 ⁹ CFU/ml
The number of bacteria recovered from the inoculum only flask after the specified contact time (b)	3.30 x 10 ⁶ CFU/ml
The number of bacteria recovered from the containing the treated sample after the specified contact time (a)	<30 CFU/ml
Percent reduction of Bacteria	>99.99%

Calculation: Percent reduction of bacteria = $(b-a)/b \times 100\%$

Remarks : CFU = Colony forming unit
 < = Less than
 > = More than

ASTM Report

BIOWIRE2K

June 13, 2005 09:56 AM Eastern Daylight Time

WAKEFIELD, Mass.--(BUSINESS WIRE)--June 13, 2005--AgION Technologies, Inc., a leading provider of engineered antimicrobial solutions, today announced that its research efforts have demonstrated that ionic silver was found to effectively deactivate the human coronavirus strain 229E, a virus linked to SARS, during a laboratory study conducted by the University of Arizona.

The study, led by C.P. Gerba, Ph.D. and K.R. Bright, Ph.D., tested various ionic silver and copper levels to determine if they were effective against the human coronavirus strain 229E, a strain commonly used as a surrogate for the SARS virus in laboratory research. The research demonstrated significant reductions of the virus within 1 hour (90 percent) and reduced virus levels to below the detection limit following 24 hours of exposure (99.99 percent).

"These are very exciting results," said Dr. Gerba. "The fact that the ionic silver is effective against this human coronavirus strain suggests that it may also be effective in reducing the human SARS virus, which has caused widespread illness in numerous countries throughout the world. Since the compound is both safe and effective, there are countless potential applications."

This study supports previous findings from research on the human SARS virus and the feline coronavirus. A 2003 study by the Chinese Center for Disease Control and Prevention found the ionic silver completely deactivated the human SARS virus after 2 hours. In addition, a laboratory study conducted by University of Arizona in 2003 found the ionic silver deactivated 99% of the feline coronavirus within 4 hours.

"The research demonstrates that ionic silver has the potential to deactivate viruses in a relatively short period of time," said Jeff Troobol, Ph.D., chief technology officer, AgION Technologies, Inc. "Studies have shown that

devices, water filtration and delivery systems, food processing and packaging, and numerous other consumer, industrial and medical products. AgION's antimicrobial products are not currently registered with the Environmental Protection Agency to claim efficacy against the coronaviruses.

About AgION Technologies

AgION Technologies, located in Wakefield, Massachusetts, is a leader in providing engineered antimicrobial solutions based on ionic silver that continuously inhibit the growth of bacteria, mold and fungus on a broad range of industrial, consumer and medical products. For more information about AgION Technologies Inc, contact Barry Green at 781-224-7100 or email bgreen@agion-tech.com www.agion-tech.com

Contacts

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Silverplus® Earth is the leader in Silver Ion technology from the element iron. For obtaining protection, health and freshness from the start in everyday life and under extreme conditions, with highly effective triple-action, EPA-registered active ingredients that comply with OEKO-TEX, Std 100 and are Bluesign approved.

The triple action mechanism blocks out O₂ transport enzymes, deactivates sulphur-containing proteins of odour-causing bacteria (stops odour) and locks cell membrane (prevents infection contribution).

Benefits:

- Breathable - luxurious material
- Waterproof
- Antimicrobial - prevents infection contribution
- Antibacterial
- Anti-odour.

