



SILVERSHIELD®

ANTIBACTERIAL & ANTIVIRAL PROTECTION FOR FABRICS



SILVERSHIELD®

Antibacterial & Antiviral textile finish, containing silver ion technology. Natural, invisible protection for clothing.

Specially created by W.T. Johnson, SILVERSHIELD® is a complex performance finishing process which incorporates state of the art silver ion technology combined with over 100 years of textile finishing expertise.

Bacteria, viruses and microbes can infiltrate our clothing, home textiles and upholstery, creating unhygienic conditions that cause odour and shorten the life of the fabric. SILVERSHIELD® provides an invisible protection whilst keeping the all important natural drape and handle of the fabric.

- ANTIBACTERIAL & ANTIVIRAL – fast-acting all-in-one finish
- SAFE – non-migrating & non-leaching
- LONG LASTING PERFORMANCE – a highly durable solution
- ENVIRONMENTALLY RESPONSIBLE – non-polluting natural element

SILVERSHIELD® – *has no effect on the handle or appearance of the fabric*



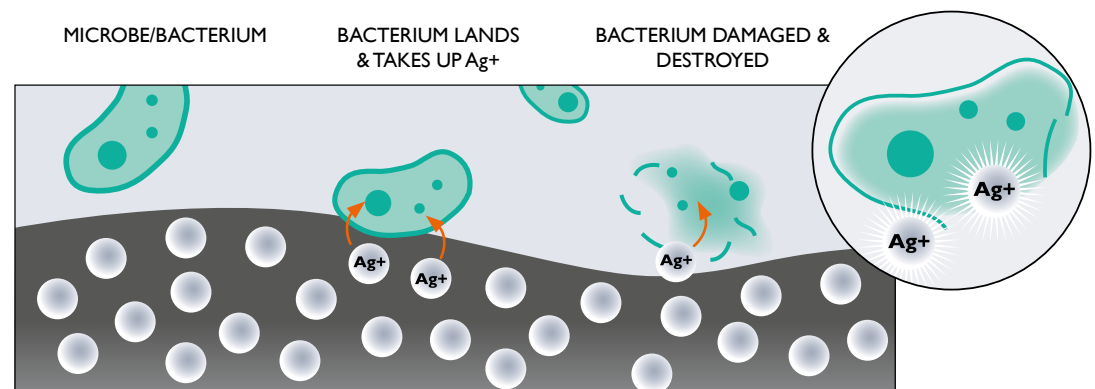
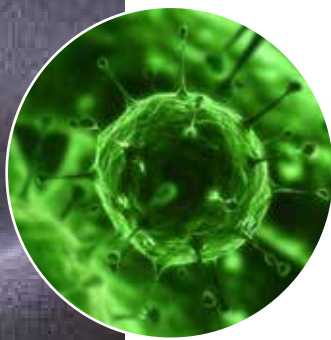


ANTIBACTERIAL & ANTIVIRAL PROPERTIES:

Silver is a highly effective, natural agent. Scientists have discovered that silver interrupts the bacteria/virus cell's ability to form the chemical bonds essential to its survival. These bonds produce the cell's physical structure so when bacteria and viruses meet silver they literally fall apart.

SILVERSHIELD® silver ion technology has been proven safe to humans, animals, and plants. It resists and inhibits the growth of microorganisms by forming a protective surface against microbes, pathogens, viruses and bacteria, such as E. coli and Staph. It also suppresses the growth of harmful mold, mildew, and fungus. In helping prevent the growth of stain and odour causing microorganisms, this protection provides stain and odour control. Tests have shown that on unprotected fabrics, bacteria can double in number every 20 minutes – silver ion technology inhibits bacterial growth by 99.94%, keeping fabrics cleaner and more hygienic for longer.

W SILVERSHIELD® – *containing Silver, the natural protector*



COATING CONTAINING SILVERSHIELD® SILVER ION ANTI-BACTERIAL/VIRAL ADDITIVE

DETERMINATION OF ANTIVIRAL ACTIVITY ACC. TO ISO 18184:2019 (2)

Independent tests now fully confirm, that SILVERSHIELD® treated 100% CO/100% PES fabrics are demonstrating an immediate effect vs the untreated fabric against Feline Coronavirus

OUTSTANDING PERFORMANCE WITHIN 60 MIN!



ANTIVIRAL TESTING:

TEST RESULT SUMMARY OF ANTIVIRAL EFFICIENCY 2% SILVERSHIELD®/60 MIN

100% PES				
	ORIGINAL FINISH		AFTER 5 × 40°C WASH CYCLES	
SAMPLE	REDUCTION (%)	REDUCTION (LOG)	REDUCTION (%)	REDUCTION (LOG)
UNTREATED	67.22	0.48	67.22	0.48
SILVERSHIELD®	97.77	1.65	97.21	1.56

100% CO				
	ORIGINAL FINISH		AFTER 5 × 40°C WASH CYCLES	
SAMPLE	REDUCTION (%)	REDUCTION (LOG)	REDUCTION (%)	REDUCTION (LOG)
UNTREATED	42.10	0.24	42.10	0.24
SILVERSHIELD®	95.52	1.35	94.44	1.26

TEST SUMMARY: 100% PES FABRIC TREATED WITH 0.5% SILVERSHIELD®/2 HOURS

CONTACT TIME: 2 HOURS				
	ORIGINAL FINISH		AFTER 20 × 40°C WASH CYCLES	
SAMPLE	REDUCTION (%)	REDUCTION (LOG)	REDUCTION (%)	REDUCTION (LOG)
UNTREATED	88.19	0.93	88.19	0.93
SILVERSHIELD®	96.61	1.47	96.02	1.40



NATURALLY SAFE

The elemental properties of silver mean that bacteria and viruses cannot adapt and become resistant, ensuring that fabric finished using the SILVERSHIELD® process will provide effective anti-bacterial/viral protection. Silver has been specially chosen because it doesn't migrate and therefore the skin's natural balance remains unaffected. The silver technology used in SILVERSHIELD® complies with Oeko•Tex Standard 100.

Silver has the most effective antibacterial and antiviral action whilst at the same time the least toxicity to animal cells. Effective yet non toxic to humans - SILVERSHIELD® is safe and gentle to skin.

Now more than ever people are looking for personal protection to use during normal, everyday contact with each other. Our silver ion technology is an invisible shield against bacteria and viruses, providing added confidence that clothes remain hygienic.

The microstructures of SILVERSHIELD® were tested for performance and safety – results show it is suitable for next-to-skin applications and cytotoxicity tests show that SILVERSHIELD® has no influence on the natural microflora of the skin. Furthermore, because of the adhesion mechanism of its microstructures, SILVERSHIELD® is only active in and on the textile and it is non-migrating.

SILVERSHIELD® – *inspiring consumer confidence in a changing World.*





LONG LASTING & ENVIRONMENTALLY SAFE

SILVERSHIELD® is an extremely durable finish, ensuring fabrics stay fresh and odour free for longer even after washing and cleaning.

The silver micro particles in SILVERSHIELD® are carefully embedded into the cloth structure, coating each fibre, ensuring protection throughout the life of the garment*.

SILVERSHIELD® is a protective finish, protecting the fabric from unpleasant body odours so reducing the need to dry clean or wash. This benefits the fabric, reduces cost and the environmental impact of the garment. This is why SILVERSHIELD® is not only economical, but has indirect ecological effects during washing, drying and storing textiles.

The SILVERSHIELD® process combines nano technology with W.T. Johnson's finishing expertise which ensures the cloth retains its luxurious feel and handling properties. The use of silver complies with W.T. Johnson's Environmental Stewardship Programme and is not harmful to the environment.

W SILVERSHIELD® – *superior cleaning properties whilst saving energy and money.*



* Tests have shown **W** SILVERSHIELD® remains effective for over 100 washes at 60°C



SILVERSHIELD®

TECHNICAL SPECIFICATION:

Antibacterial & Antiviral preservative finish for all fibre types, highly resistant to washing, especially suitable for textiles worn next to the skin.

PROPERTIES

- Using the leading silver ion technology
- Non migrating bactericidal and slightly fungicidal protection for textile protection
- Bluesign® approved
- Oekotex standard 100 compliant(www.oekotex.com)
- Registered according to the European biocide regulation in Germany:N-12827
- Registered to biocidal inventory of Health Ministry in Turkey
- EPA registration

IMPORTANT LABELLING INFORMATION

In the EU, textiles which have been finished with a biocide have to be labelled accordingly since 1st September 2013.



W.T. Johnson
TEXTILE FINISHERS EST. 1910

A range of specialist performance finishes from WT Johnson...

 **SILVERSHIELD®**
ANTIBACTERIAL & ANTIVIRAL FABRIC PROTECTION.

 **NANOBLOC®**
WATER AND STAIN FABRIC PROTECTION.

 **COOLFINISHES™**
HELPING FABRIC FEEL LIGHTER & COOLER

 **V.V. FINISH™**
PERMANENT HIGH PRESS FINISH


LONDON SHRUNK
LUXURY ENGLISH FINISH