




**CONTINUOUS, COMPREHENSIVE & PERMANENT  
SILVER ANTIMICROBIAL FABRIC PROTECTION**



**Despite the steps taken to reduce HAIs, they still remain one of the world's leading & most costly healthcare challenges. Most are preventable. All are extremely harmful in human & financial terms.**

Healthcare Acquired Infections (HAIs), also called nosocomial infections, are infections that first appear between 48 hours and four days after a patient is admitted to a hospital or another healthcare facility. They include urinary tract, surgical site, lung and bloodstream infections.

## THE FINANCIAL COST OF HAIs

Hospital stays for patients who acquire a healthcare related infection increase an average of 7-10 days at an incremental treatment cost of over \$30,000 per patient<sup>1</sup>. The annual cost to the healthcare industry totals nearly \$45 billion<sup>2</sup>, much of which is preventable.

New insurance coverage regulations from both CMS (Centers for Medicare & Medicaid Services) and insurance companies have eliminated reimbursement for HAIs deemed preventable. This is why it is more critical than ever to reduce their occurrence. A more complete solution to this growing problem is needed.

## THE HUMAN COST OF HAIs

Each year, nearly 2 million<sup>3</sup> patients in the U.S. acquire an infection while in a healthcare setting and nearly 100,000<sup>4</sup> die as a result. It's also estimated that 70% of HAI-causing bacteria are drug-resistant.

1,2 R. Douglas Scott II, Economist Division of Healthcare Quality Promotion National Center for Preparedness, Detection, and Control of Infectious Diseases Coordinating Center for Infectious Diseases Centers for Disease Control and Prevention; The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospitals and the Benefits of Prevention, March 2009

3,4 R. Monina Klevens, DDS, MPH, et al; Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002; Public Health Reports, March-April 2007



## **THE OBJECTIVE**

To reduce environmental contamination on the textile material and the risk of cross-contamination to humans.

While hand washing and hard surface disinfection practices have contributed to a reduction in infection rates, they rely on compliance to be effective and do not address the total healthcare environment. Soft surfaces such as privacy curtains are a proven source of bacterial cross-contamination. They are a proven cause of infection outbreaks yet are overlooked as an infection reduction opportunity.

Soft surfaces such as bedding, privacy curtains and hospital gowns cover 90% of the patient contact environment and a significant percentage of the hospital room interior surface area.



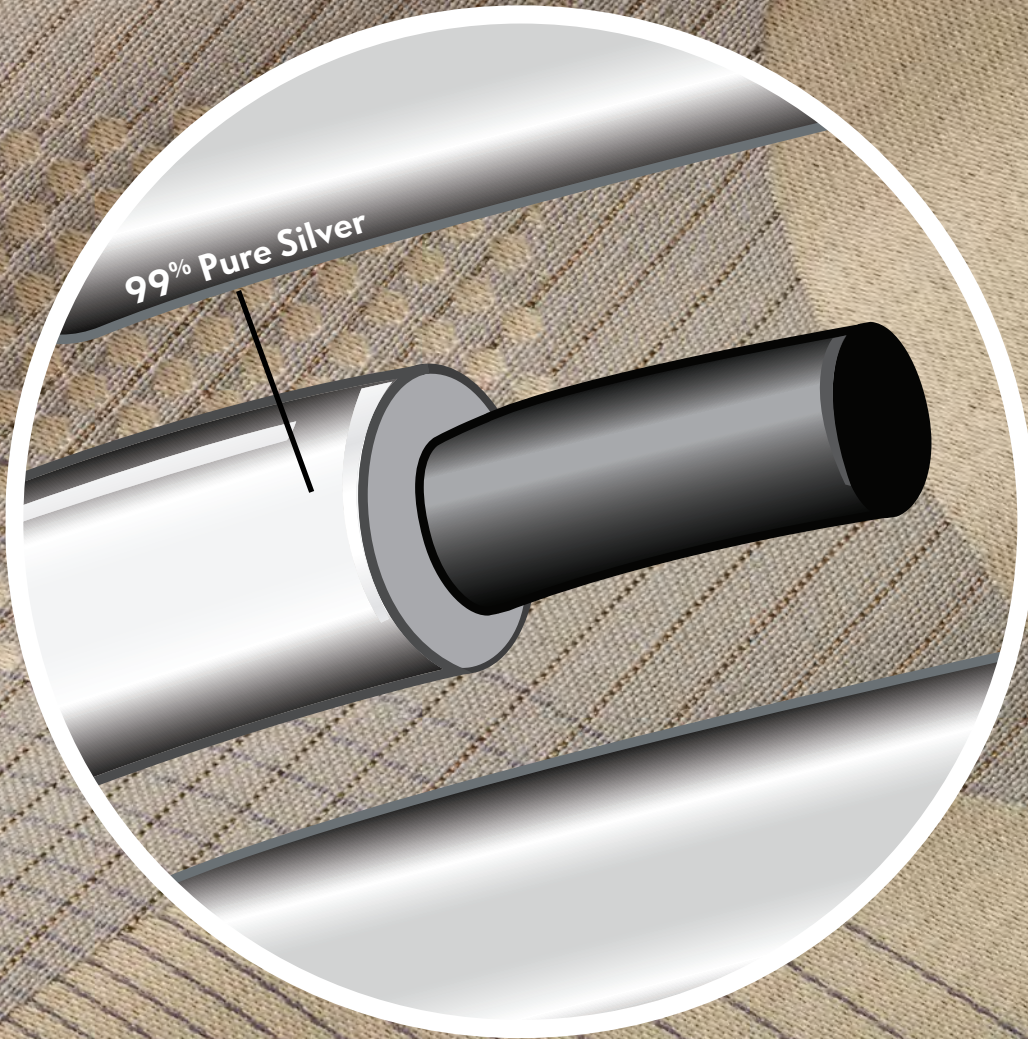
**X-STATIC** is the leader in antimicrobial fabric technology & is clinically proven to inhibit the growth of bacteria on textile surfaces.

**X-STATIC** fibers are permanently bonded with a layer of 99.9% pure metallic silver. **X-STATIC** is not nanotechnology or a complex chemical formula, just silver. This silver layer is the key to X-STATIC's powerful antimicrobial properties as it creates an ionic shield that permanently inhibits the growth of bacteria and fungi.

Privacy curtains made with **X-STATIC** fibers are flexible with the natural look and feel of traditional textiles while offering all the benefits of pure silver.

**X-STATIC** is the active ingredient in Federal Drug Administration (FDA) approved products for advanced woundcare and has undergone extensive safety testing. **X-STATIC** is also a registered antimicrobial agent with the Environmental Protection Agency (EPA).

**X-STATIC** is not a surface treatment. Silver is irreversibly bound to a polymer so it becomes a physical part of the fiber. **X-STATIC** is permanent and performance does not diminish over time. In fact, X-STATIC cubicles have been tested after 200 commercial launderings with virtually no reduction in performance.



## THE RESULTS

The antimicrobial performance of **X-STATIC** silver fiber has been validated by prestigious institutions throughout the world.

## FAST ACTING AGAINST BACTERIA / MICROBES

Proven to reduce bacteria on soft surfaces in healthcare settings. Tested in accordance with ASTM E2149.

## PERMANENT

Truly lasts the life of the product. Tested after 200 commercial launderings.

## CLINICAL HERITAGE

**X-STATIC** is the most effective and safest soft surface antimicrobial solution available today. Extensively tested and validated in the most demanding applications and environments, **X-STATIC** is used by leading brands and proven by Olympic athletes, military Special Forces, NASA as well as prestigious healthcare institutions around the world.

### Disclaimer:

Products containing X-STATIC are not intended to be used in the diagnosis, cure, or treatment of human infection. They are solely intended to protect the finished product itself from microbial growth. We make no public health claim.

## IS X-STATIC SILVER ANTIMICROBIAL FIBER SAFE FOR HUMAN CONTACT?

- Third party studies have been conducted based on the requirements of the International Organization for Standardization 10993: Biological Evaluation of Medical Devices, Part 10: Test for Irritation and Sensitization. The results show no evidence of significant irritation.
- **X-STATIC** has earned the Oeko-Tex Standard 100 accreditation, which certifies that it supports human ecology through bio-compatibility and the absence of harmful substances in the manufacturing process.

## IS X-STATIC SILVER ANTIMICROBIAL FIBER SAFE FOR THE ENVIRONMENT?

- **X-STATIC** is a registered antimicrobial agent with the U.S. Environmental Protection Agency.
- **X-STATIC** does not release a significant amount of silver into the environment. Test results show that washing an average X-STATIC fabric in a home washing machine will release less silver ions than a single sterling silver teaspoon in a dishwasher.
- Up to 50% of the silver used in the manufacturing process of X-STATIC is recycled.
- It is possible to close the environmental loop when fabrics are recycled at the end of their life cycle to recover the silver content.

## HOW DOES X-STATIC SILVER ANTIMICROBIAL FIBER PROCESS WASTE FROM ITS MANUFACTURING OPERATIONS?

- **AIR WASTE**

Local state Department of Environmental Protection (DEP) has determined that the manufacturing processed air is not hazardous.

- **SOLID WASTE**

All waste that contains silver is reclaimed and the silver component recycled. The plastic, aluminum, laboratory glass and pallets are recycled. All remaining non-silver containing solid waste is tracked, collected, controlled and sent to a local landfill.

- **WATER WASTE**

Silver-containing water is treated, measured against permit limits and sent to the local sewer authority. Non silver-containing water is pH adjusted, measured against permit limits, and sent to the local sewer authority.



## IS THE WATER PROCESSING FOR X-STATIC SILVER ANTIMICROBIAL FIBER CLEAN AND SAFE FOR THE ENVIRONMENT?

- **WATER HANDLING**

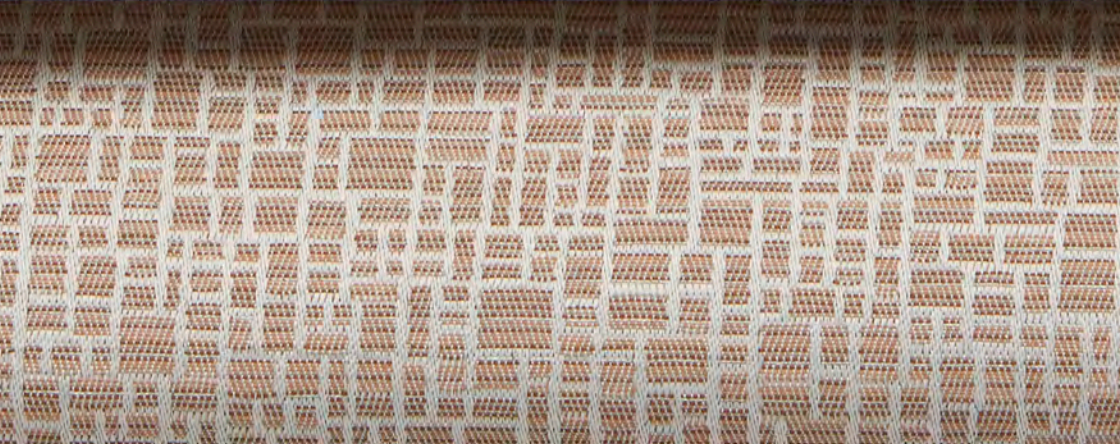
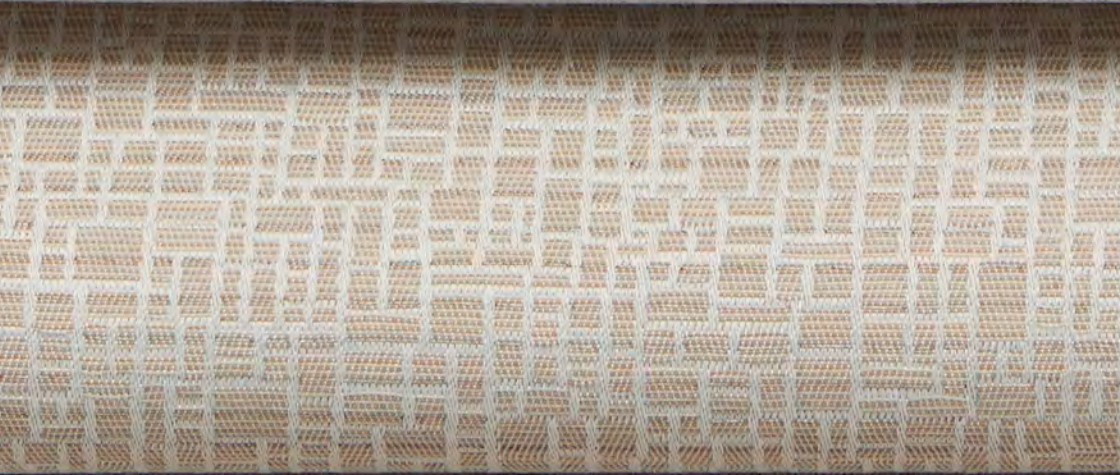
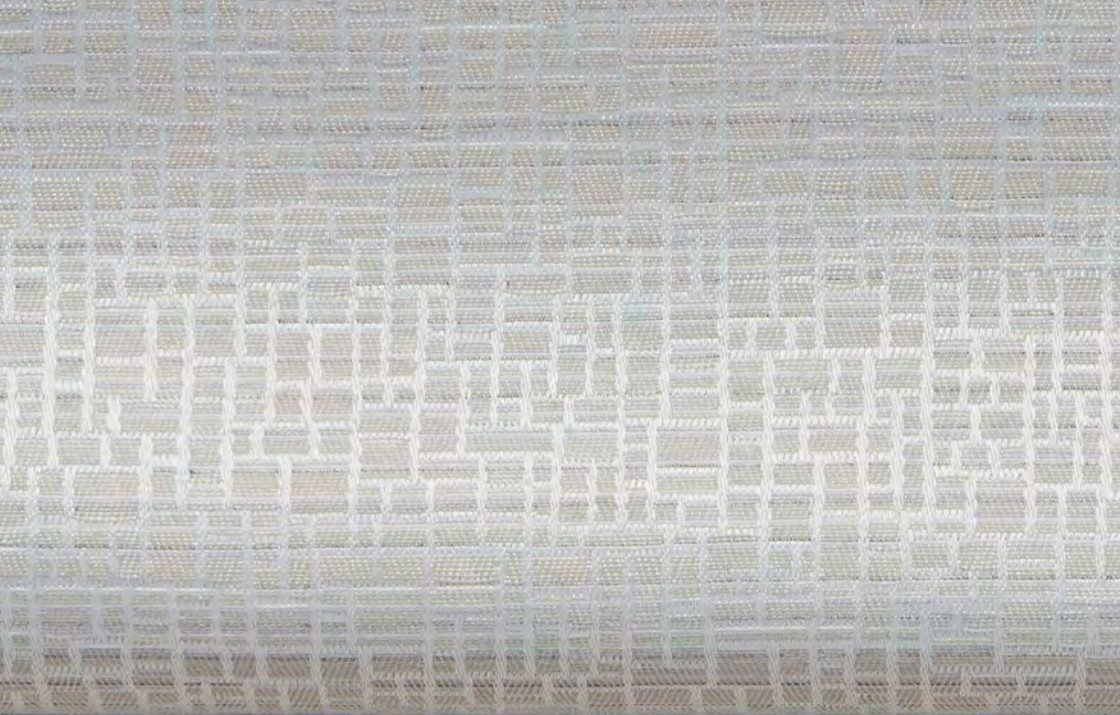
Two types of process waters are used to make **X-STATIC**; silver containing water and water that does not contain silver. All silver-containing water is isolated, collected and treated to remove the silver before it leaves the facility.

- **WATER FILTRATION AND CERTIFICATION**

The local sewer authority permits **X-STATIC** to use industry standard treatment processes in order to remove the silver from the wastewater stream. **X-STATIC** verifies that the water is silver-free by testing composite samples daily using industry standard methods.

- **SILVER IN THE WATER SUPPLY**

**X-STATIC'S** processes do not leach silver into the water supply. TCLP testing (Toxic Characteristic Leaching Procedure) demonstrates that the method used to remove the silver from the process water does not allow silver to leach into the environment. Phase I environmental assessments have been performed to verify that ground samples from the premises do not contain silver. All **X-STATIC** product scrap and waste is collected in order to recycle the silver component.



## **X-STATIC**

For more information on X-Static Silver Antimicrobial technology and to see our entire line of products, please visit [Arc-Com.com/XStatic](http://Arc-Com.com/XStatic) or scan the QR code below.

