

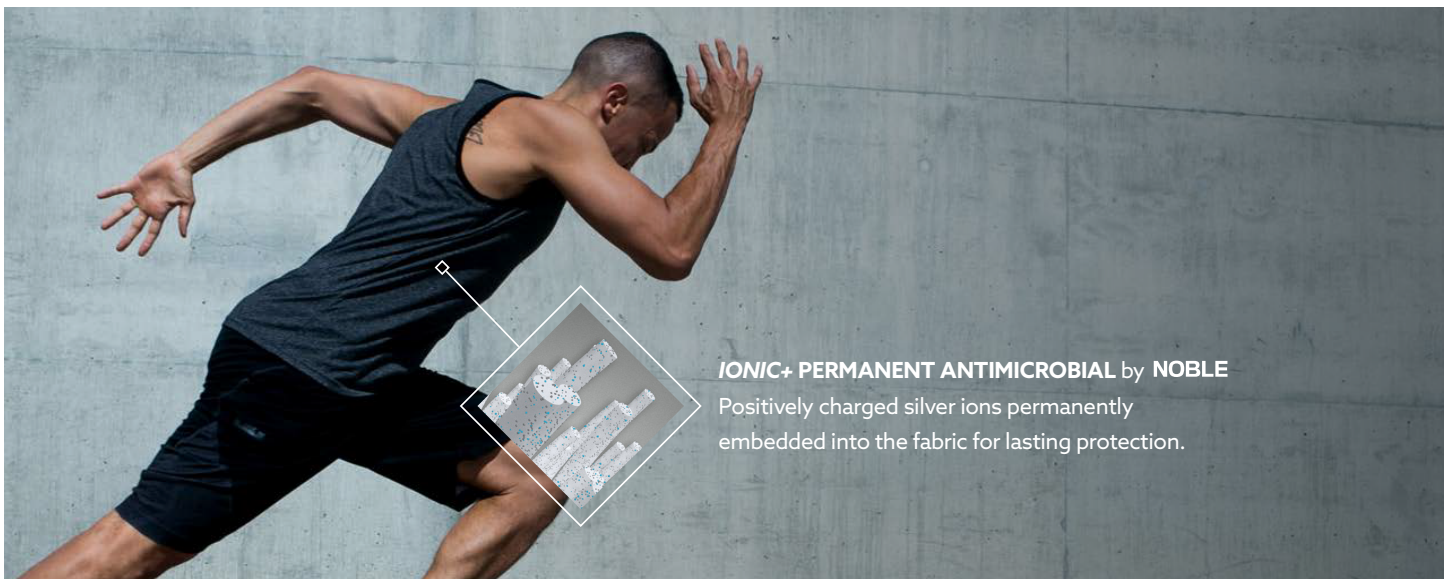
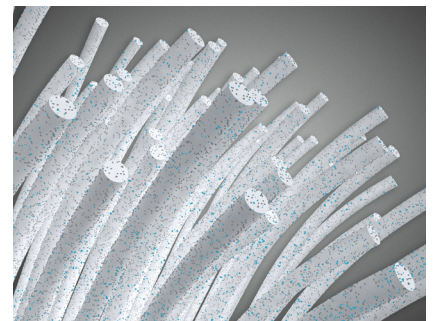
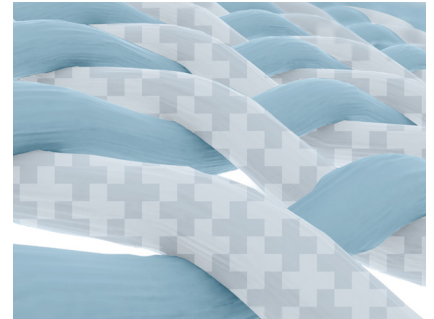
COOLPRO

Cooling + Self Cleaning Antimicrobial Fabric Technology

YARN TECHNOLOGY THAT COOLS AND PREVENTS ODOR

IONIC+® Coolpro is a new fabric collection from Noble Biomaterials that combines IONIC+® Pro antimicrobial yarn with advanced yarn-based cooling technology.

- + **Chemical-free** Completely yarn-based fabric construction
- + **Permanent and durable** Technology does not wash out
- + **Tested and approved** EPA registered Oeko-Tex Standard 100 certified
- + **Flexible** Blends with natural and man-made fibers
- + **Completely dyeable** Full range of color options



IONIC+ PERMANENT ANTIMICROBIAL by NOBLE

Positively charged silver ions permanently embedded into the fabric for lasting protection.



THE SCIENCE OF SILVER

The active ingredient in IONIC+ Mineral Antimicrobial - silver, has been used to inhibit bacterial, and microbial growth, prevent infection, and promote human health since 1300 BC.

When applied properly, positively charged silver ions are attracted to negatively charged bacteria. The ions attracted to the bacteria's DNA disrupt its respiration, cell division, and replication processes.

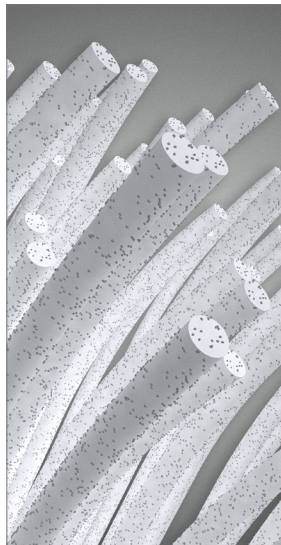
Over time, as the application of the science has evolved, silver has been integrated into numerous products across a broad range of industries: cosmetics, textiles, medical devices, advanced wound care, and more.

FUN FACTS

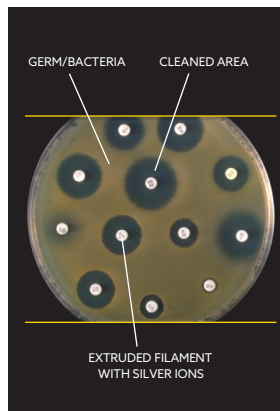
Humans can distinguish at least 1 trillion odors. We have trillions of bacteria that embed themselves on our fabrics resulting in odorous apparel and contaminated materials. Removing the bacteria from the fabric - not from the body via a self-cleaning mechanism like IONIC+ allows clothing and other materials to stay fresher longer. This extends cleaning intervals which requires less care, washing, and extends the life of fabrics.



IONIC+ PERMANENT YARN ODOR CONTROL SOLUTION



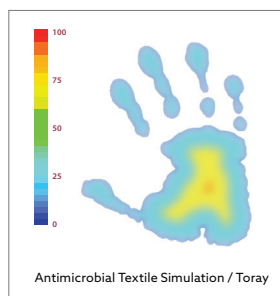
- + Professional athlete grade performance
- + Industrial wash standard/over 100x wash durability
- + EPA registered, Oeko-Tex Standard 100
- + Non-metallic yarns that use silver ion technology with either virgin or recycled polyester or nylon
- + Blended with natural and man-made fibers (nylon, cotton, wool, polyester, acrylic, etc.)
- + Technology inherent in the fiber, the ion technology does not wash out and lasts for the life of the fabric
- + Completely dyeable, coloring options allow for endless design possibilities



ZONE OF INHIBITION

Silver ions inhibit microbe/bacteria growth and reproduction. In this petri dish, you can see how microbes will not grow near the yarn.

IONIC+ Pro provides more coverage of silver ions increasing the zone of inhibition throughout the entire fabric. This translates to permanent reduction of odorous bacteria on the fabric because the technology **DOES NOT WASH OUT.**



99.9% MICROBIAL REMOVAL RATE ON FABRIC IN JUST 59 MINUTES

- 10 minutes = 46.9% removed
- 20 minutes = 70.6% removed
- 30 minutes = 84% removed
- 40 minutes = 91.3% removed
- 59 minutes = 99.9% removed

ANTIMICROBIAL FABRIC IN ACTION

This touch simulation of real test results represents a timelapse of microbial removal rates on fabric (micro-organisms include bacteria and fungi).

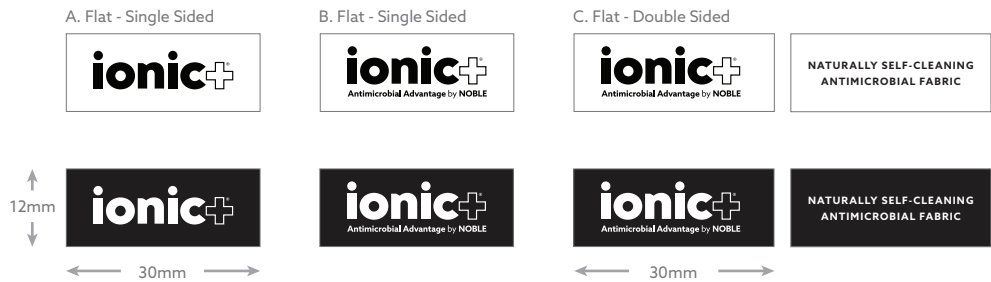
IONIC+® BRAND SUPPORT FOR ALL END USE PRODUCTS*



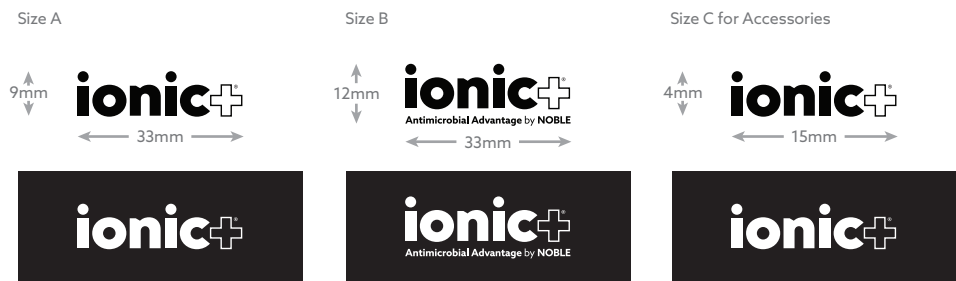
HANGTAGS One universal, multilingual tag for all products in all sizes, printed on 100% recycled paper



PRINTED FABRIC LABELS A universal label: three styles, positive and reverse designs



HEAT TRANSFERS A universal emblem: three styles, positive and reverse designs



* Additional languages for Asia available upon request. Brand support is complimentary on orders that are placed 60 days before in-hand date.

NOBLE REGULATORY AND AFFILIATIONS



US FOOD & DRUG
ADMINISTRATION
510(k) Medical
Device Clearances



EUROPEAN COMMUNITY
CERTIFICATION
Used in Customer-Cleared
Class 1, 2 and 3 Medical
Devices



US ENVIRONMENTAL
PROTECTION AGENCY
Antimicrobial Registrations



OEKO-TEX®
Standard 100
Certification



BLUESIGN
System Partner

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NOBLE Biomaterials is a global leader in antimicrobial and conductivity solutions for soft-surface applications. The company produces advanced material technologies designed for mission-critical applications in the performance apparel, healthcare, industrial, and emerging wearable technology markets. Its flagship brands, X-STATIC®, IONIC+®, and CIRCUITEX®, are used by world-class licensees to provide odor elimination, infection prevention/management, biometric monitoring, and conductive protection benefits. Our headquarters and manufacturing facilities are located in Scranton, Pennsylvania, and we have a network of offices across Asia, and South America. Visit our website to learn more.



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