

Research and Development Team

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Manufacturing facility: Kings Mountain, North Carolina

Microbial Protection -- Going Beyond Silver

Silver Ion Technology was first introduced by Crypton in 2006 with the launch of Crypton Green. It is now being used throughout Crypton, Inc.'s offerings, including INCASE. Crypton Green, Crypton Super Fabrics, and INCASE Fabric Protection, go beyond silver, however, when it comes to protecting fabrics against microbial growth. Our multi-functionality – repellency, cleanability, Silver Ion Technology, and moisture barrier – provides a tiered system of defense that cannot be matched by silver ions alone.

Crypton, Inc. advantages include:

- › The use of the best application technique, held consistent across all fabrics
- › Multiple levels of protection, not simply Silver Ion Technology
- › Lower cost

Consistent Application

An advantage for Crypton and INCASE is the application method is always the same. Our proprietary system of fabric immersion, pressure, and heat transfer impart both physical and molecular bonding, encapsulating each fiber with a permanent, protective membrane. Should there be abrasion to remove surface fibers, the subsequent layers of fibers are equally protected. Crypton and INCASE are never sprayed or foamed on, ensuring all fibers, not just the surface layer, are protected.

Tiered System of Defense

The tiered defense consists of -

- › Each and every fiber is both hydrophobic and oleophobic, meaning water and oil-based liquids are repelled.
- › Oil- and water-based soils are easily released, allowing removal of the food sources for microbes.
- › Silver Ion Technology resists the growth of microbes. With Crypton and Crypton Green this includes fungal growth.
- › Crypton Super Fabrics and Crypton Green only: permanent, integrated moisture barrier

Mechanism 1: Water and Oil Repellency

Even before we rely on Silver Ion Technology, the resistance to moisture serves to protect Crypton and INCASE fabrics. Microbes are living organisms that need a food source, correct temperature, and humidity to thrive. By repelling liquids the likelihood of having an environment suitable for growth is greatly diminished.

Mechanism 2: Soil and Stain Release

Some finishes only provide repellency, actually making it more difficult to remove stains once they penetrate the fabric surface. Crypton and INCASE, on the other hand, repel spills while making it easy to clean embedded stains. The release portion of our chemistry aids the ability to remove water- and oil-based stains that serve as food sources for microorganisms.

Mechanism 3: Silver Ion Technology

In the unlikely event that a stain should get past the first two defense mechanisms, Silver Ion Technology resists microbial growth. Silver was used by the ancient Greeks in drinking vessels and is now used in a variety of medical applications, including wound dressings. Silver ions control bacteria by (1) blocking oxygen-transporting enzymes, (2) preventing cell growth by inactivating proteins of the bacteria, and (3) locking the cell membrane.

Mechanism 4: Permanent, Integrated Moisture Barrier

The guaranteed moisture barrier of Crypton is the only way to ensure fabrics can be disinfected. When used in conjunction with any EPA approved Disinfectant, numerous bacteria, fungus, and viruses are eliminated. Crypton is the ultimate protection against behind-the-scenes contamination. INCASE is appropriate when the moisture barrier is not needed (i.e. privacy curtains, drapes, etc.).

Lower Cost

Crypton and INCASE do not require multiple processors, saving time and money. And while there are yarns that include a silver-based product at extrusion, these fabrics are more expensive with no gain in effectiveness against microbes. Only the silver compounds on the fiber surface have an impact on microbial resistance, so the expensive material within the fiber is wasted. There is no advantage in terms of permanency because testing shows our product is 99.9% effective after 20 commercial launderings.

Specify Crypton and INCASE so that you take your project beyond silver.

Call 1.800.CRYPTON for help between 8 am – 5pm EST