



## Properties of Antimicrobial Fibers and Its Applications

Cheng Tinijg\*

Department of Textile and Clothing Engineering, Soochow University, Suzhou, China

\*Corresponding author: Cheng Tinijg, Department of Textile and Clothing Engineering, Soochow University, Suzhou, China; E-mail: Cheng1ting@gmail.com

Received date: 14-Feb-2023, Manuscript No. JFTTE-23-94493;

Editor assigned date: 16-Feb-2023, PreQC No. JFTTE-23-94493 (PQ);

Reviewed date: 03-Mar-2023, QC No. JFTTE-23-94493;

Revised date: 10-Mar-2023, Manuscript No. JFTTE-23-94493 (R);

Published date: 20-Mar-2023, DOI: 10. 4172/2329-9568.1000289.

### Description

Antimicrobial properties in fiber have become increasingly popular in recent years due to their ability to prevent the growth of harmful bacteria and viruses. Antimicrobial fibers are textiles that have been treated with antimicrobial agents, such as silver or copper that prevents the growth of bacteria and viruses. These fibers work by disrupting the cell membrane of bacteria, preventing them from reproducing and spreading. Antimicrobial-treated textiles have a longer lifespan. Slowing the loop of products ending up in landfills, as well as the requirement to produce new replacement things, contributes to a reduction in our overall carbon footprint.

### Benefits of antimicrobial fibers

Antimicrobial fibers have a variety of benefits in various applications. In healthcare settings, such as hospitals and clinics, antimicrobial fibers can help prevent the spread of infections and diseases. They are also commonly used in athletic apparel and footwear to prevent the growth of odor-causing bacteria that can thrive in sweat and moisture. Even though antimicrobial fabrics have various health benefits and end-user goods are more sanitary. The downside of antimicrobial fabrics is that they are loaded with antibacterial compounds. Several of these substances may be hazardous to the

environment and, in certain cases, to human health. Antimicrobial compounds vary in composition and thus in characteristics. These chemicals are used to polish final items, which come into touch with skin and constitute a health risk.

Antimicrobial fibers can also be beneficial in home textiles, such as bedding and towels, where they can help prevent the growth of bacteria that can cause unpleasant odors and stains. This can lead to a more hygienic and comfortable living environment. One method involves applying a coating of antimicrobial agents, such as silver or copper, to the surface of the fiber. Another method involves incorporating the antimicrobial agents directly into the fiber during the manufacturing process. While antimicrobial fibers offer many benefits, there are also some challenges and considerations to keep in mind. One challenge is that the antimicrobial properties of the fiber can diminish over time with repeated washing and use. It is also important to ensure that the antimicrobial agents used are safe for human use and do not cause any adverse reactions. Microbial growth can also be detrimental to the longevity of your items. Bacteria and fungi eat away at both natural and synthetic textiles over time. Furthermore, the odour produced by these microorganisms encourages more wash cycles, reducing the lifespan of your products. Fabrics can act as a pathogen transfer vector in medical applications and shared facilities. While most disease-causing bacteria cannot survive on textiles indefinitely, they can survive long enough to catch a ride throughout a hospital or prison to create new infections.

### Conclusion

In conclusion, antimicrobial fibers have become increasingly popular due to their ability to prevent the growth of harmful bacteria and viruses. They offer many benefits in various applications, from healthcare settings to athletic apparel and home textiles. As the demand for more hygienic and sustainable textiles grows, the use of antimicrobial fibers is sure to increase in popularity. Textiles with improved functionality are now available for a variety of applications. They are of tremendous interest in the healthcare profession because of their potential to prevent or limit microbe growth, hinder biofilm development, or impede microbial propagation, hence reducing sources of infection.

Citation: Tinijg C (2023) Properties of Antimicrobial Fibers and Its Applications. J Fashion Technol Textile 11:1.