

# Purified Cotton Outperforms Greige and Raw Cotton in Lab Study

In a recent study on the pharmaceutical properties of cotton, samples were submitted to an independent U.S. laboratory for microbial analysis. A Total Microbial Plate Count and a Mold/Yeast Analysis were prepared for samples of Raw, Greige and Purified cotton. All results were measured in Colony Forming Units per gram.



## SCIENTIFIC ANALYSIS OF PURIFIED COTTON™ AND LOWER GRADES LIKE GREIGE (GRAY) AND RAW

### Certificate of Lab Analysis\*

Samples of cotton were submitted to an independent US laboratory for microbial analysis. Both Total Microbial Plate Count and Mold/Yeast analyses were performed on all cotton samples. The results are as follows:

#### Types of Cotton

Raw Cotton ▲

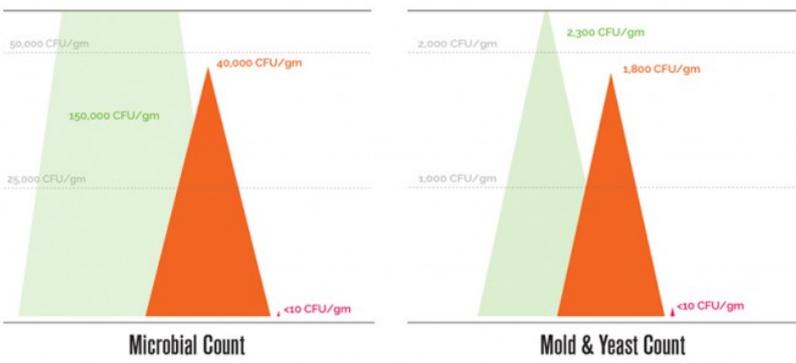
Greige Cotton ▲

Purified Cotton™ ▲

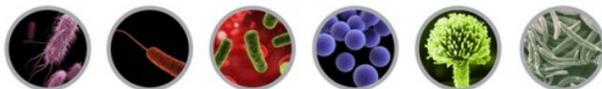
#### CFU/gm?

CFU - Colony Forming Unit  
gm - gram

#### Analysis of Cotton for Viables



Some types of bacteria, mold, and fungi commonly found on non-purified (untreated or impure) cotton.



L-R: Enterobacteriaceae, Pseudomonas aeruginosa, E. cloacae, Staphylococcus aureus, Aspergillus, Fusarium.

Only Purified Cotton™ meets/exceeds The U.S. Pharmacopeia Convention (USP) standards (Europe and Japan standards as well) and can be called pharmaceutical grade. USP is a scientific nonprofit organization that sets standards for the identity, strength, quality, and purity of medicines, food ingredients, and dietary supplements manufactured, distributed, and consumed worldwide. USP's drug standards are enforceable in the United States by the Food and Drug Administration (FDA), and these standards are used in more than 140 countries. Europe has the EP group and Japan has its JP group for use in those areas. USP, EP, or JP.

# Microbial Count

The results of the Microbial Count analysis were varied, showing samples in stark contrast to each other. Raw cotton measured 150,000 CFU/gm and Greige cotton measured 40,000 CFU/gm, while Purified cotton had less than 10 CFU/gm. Relative to the other samples, this analysis clearly showed Purified cotton's benefits as a material resistant to microbial organisms. It also showed that Purified cotton has wide applications and uses in a variety of important industries, including the medical and pharmaceutical industries.

# Mold/Yeast Count

Like the Microbial Count analysis, the Mold/Yield Count provided insight into the benefits of Purified cotton. This count revealed that Raw cotton had 2,300 CFU/gm and that Greige cotton had 1,800 CFU/gm. However, Purified cotton was shown to have less than 10 CFU/gm. This further helped illustrate the superiority of Purified cotton compared to other non-purified specimens on the market. When you work with non-purified cottons, there are all sorts of bacteria and fungi that can blunt cotton's effectiveness.

Types of bacteria, mold and fungi commonly found on non-purified cotton:

- Enterobacteriaceae
- Pseudomonas aeruginosa
- cloacae
- Staphylococcus aureus
- Aspergillus
- Fusarium

# Pharmaceutical Standards

Purified cotton has properties that meet or exceed U.S. Pharmacopeia Convention Standards, along with European and Japanese standards. The USP is a scientific non-profit agency that sets standards relating to the strength, quality and purity of medicine, food ingredients and other important goods used throughout the world. Given that Purified cotton meets UPS standards, it's considered a pharmaceutical grade cotton that is viable for medicinal use.

Purified cotton stood out in the analysis of cotton samples in this study, and it is a more viable option compared to lesser grades of cotton when it comes to medical applications. Purified cotton meets the high standards necessary to be considered pharmaceutical grade, and it outperforms other products on the market.