Fiber analysis for the global market

With hundreds of fiber types available in the market, it can be challenging to guarantee fiber content, especially with luxury fibers.

UL's fiber laboratories can help to identify exactly what percentage of different fibers make up a garment, whether they are luxury fibers like cashmere or mohair, natural fibers like cotton or wool, or human-made materials such as polyester or nylon.

Through chemical and microscopic analysis, our fiber engineers have the expertise to perform proper fiber evaluations and accurately interpret the results. Every fiber analysis we perform follows applicable test methods and your stated requirements to help you reduce the chance of non compliance and unsatisfied consumers.

Industry trusted

UL is a trusted and recommended laboratory by fiber industry associations to perform evaluations, such as fine animal hair microscopy testing.

Fiber content analysis

In UL's state-of-the-art softlines laboratories, we have the equipment and trained personnel to perform chemical and microscopic fiber analysis to American Association of Textile Chemists and Colorists (AATCC) 20 and 20A test methods.

With chemical analysis, fibers are dissolved to determine the percentage of the anticipated fibers present in a sample. For example, a fabric could be dissolved and analyzed to determine if it is 90% cotton and 10% polyester.

In a microscopic analysis, we perform calculations based on the average surface area of each fiber type and the counted number of each fiber type to determine the final fiber content of the garment.

Thread count verification

Consumers understand that textiles with higher thread counts will last longer through typical wear and tear, making it a superior product. These higher quality products are more expensive and take longer to produce. However, it can be difficult to determine thread count with the naked eye, providing an opportunity for mistaken or fraudulent thread count claims.

Our trained fabric engineers, using a polarizing trinocular microscope, can determine the exact thread count of a garment and benchmark the results against the manufacturer's or vendor's thread count claims to help ensure honesty in the supply chain.

Fabric types

We have the capabilities, equipment, and trained technicians to perform fiber analysis on materials such as:

- Cotton
- Wool
- Polyester
- Nylon
- Rayon
- Silk
- Acrylic
- Cashmere
- Mohair
- Hemp
- Animal hair
- Blended fabrics
- Other synthetic and natural materials

To learn more about UL's fiber analysis capabilities, please visit CRS.UL.com or contact us at https://CRS.UL.com/en/contact/.

Empowering Trust™