Synthetic textiles and fabrics are continually evolving—with enhanced performance characteristics and applications. But vague, conflicting or unsubstantiated marketing claims often result in consumer frustration and loss of trust. How can manufacturers build trust through third-party verification, and why is it even important?

The what and why of textile performance verification

1 Types of regulatory testing

While requirements vary depending on the jurisdiction, regulators most often require the testing of textile-based materials in the following circumstances:

- **Chemical testing** — verifies compliance with restrictions or bans against certain potentially harmful chemicals in product materials
- **Flammability testing** — assesses a fabric’s susceptibility to igniting and catching on fire
- **Biocompatibility testing** — provides evidence of biocompatibility assessments for materials used in products designated as medical devices
- **Fiber composition testing** — verifies fiber composition and content for textile and fabric labels

2 Types of performance testing

The material characteristics of performance textiles and fabrics are often evaluated in accordance with voluntary standards developed by ASTM International, industry trade associations and others.

- **Dimensional stability** — can the fabric maintain its size under normal use over time?
- **Colorfastness** — does the fabric resist loss of color or color deterioration?
- **Other physical properties** — does the material or fabric resist tearing, pilling and abrasion?
- **Moisture management** — can the fabric wick moisture away from the skin and evaporate?
- **Environmental factors** — does that material or fabric reflect an environmental life cycle perspective in its production as well as end-of-life considerations?

3 Why independent verification is important

Independent verification not only minimizes the risks associated with unsubstantiated claims; it also offers manufacturers a number of market advantages, including:

- Objective material performance claims are more credible
- Buyers prefer independently verified materials over those with self-declared claims
- Consumers have more confidence and trust in independently verified material/performance claims
- Manufacturers can showcase their commitment to producing high quality products
- 66% of U.S. retailers express a preference for the UL Mark over other TIC markers

Find more insights on performance textile verification in our white paper: Performance Textiles and Fabrics: Assessing and Verifying Product Performance Claims

Manufacturers who knowingly market advanced performance textiles and fabrics that pose potential health or safety concerns may face legal action, including criminal sanctions and civil law suits.1

Complexity grows with every innovation. UL helps you navigate it. Our data-driven insights, science-backed testing methodologies and verification services support manufacturers with independently verified material and performance claims for performance textiles and fabrics. For more information, visit https://CRS.UL.com/en/services/validiation-and-verification/