



Textile & Apparel Testing Services

Enable compliance. Strengthen product quality. Support global market access.

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 **TÜVRheinland**[®]
Precisely Right.



BUILD CONFIDENCE IN EVERY PRODUCT

The textile and apparel industry is facing increasing pressure from regulators, global brands, and consumers. Product safety, chemical compliance, sustainability, performance, and traceability are no longer optional - they are essential for market access and long-term brand reputation.

TÜV Rheinland supports textile and apparel manufacturers, suppliers, exporters, retailers, and brands with reliable testing, inspection, auditing, and compliance services that help products meet international standards and customer expectations.

From fibre to finished garments, we help businesses strengthen quality, minimise risk, and build confidence across the supply chain.



INDUSTRY CHALLENGES IN TEXTILE & APPAREL

The textile and apparel industry operates within an increasingly complex regulatory and sustainability landscape.

- **Strict Chemical Compliance**
 - **European Union**

The REACH Regulation requires strict control of hazardous substances, including SVHCs, azo dyes, heavy metals, and other restricted chemicals.
 - **United States**

The Consumer Product Safety Improvement Act (CPSIA) restricts lead and phthalates, particularly in children's products.
- **Product Safety & Flammability Requirements**
 - Compliance with flammability standards under the Flammable Fabrics Act
 - Safety requirements for children's products under CPSIA
 - Increasing focus on consumer safety and product liability
- **Labelling & Traceability**
 - Accurate fibre composition, care instructions, and country-of-origin declarations
 - Growing expectations for Digital Product Passports (DPP), particularly within the EU
 - Greater demand for transparent and traceable supply chains



- **Quality & Performance Expectations**
 - Compliance with ISO, ASTM, and AATCC standards
 - Consistent product quality across bulk production
 - Durability and performance aligned with brand expectations

- **Logistics & Lead Time Pressure**
 - Faster production cycles and shorter delivery timelines
 - Global supply chain disruptions affecting sourcing and delivery reliability

- **Sustainability & Environmental Regulations**
 - Circular economy initiatives such as the EU Strategy for Sustainable and Circular Textiles
 - Increased focus on carbon footprint, recyclability, wastewater management, and sustainable sourcing



Addressing these challenges requires technical expertise, independent verification, traceability, quality control, and reliable testing data.

OUR TEXTILE & APPAREL TESTING SERVICES

We provide comprehensive textile and apparel testing services to support manufacturers, exporters, brands, and buyers in meeting international quality, safety, and compliance requirements across the EU, USA, and global markets.

Our laboratories conduct testing in accordance with internationally recognised standards, including ISO, ASTM, AATCC, DIN, and regulatory frameworks such as REACH and CPSIA.



Physical & Mechanical Testing



Chemical Testing



Performance Testing



Product Safety Testing



Functional Textile Testing



Eco & Sustainability Testing



Labelling & Compliance Verification



Inspection Services



Factory Audits & Supply Chain Assurance



Physical & Mechanical Testing

Evaluate fabric strength, durability, and construction performance using internationally recognised methods.

- Dimensional stability – ISO 5077 / AATCC 135
- Tear strength – ISO 13937 / ASTM D1424
- Tensile strength – ISO 13934 / ASTM D5034
- Seam strength – ISO 13935 / ASTM D1683
- Seam slippage – ISO 13936 / ASTM D1683
- Abrasion resistance – ISO 12947 (Martindale) / ASTM D4966
- Pilling resistance – ISO 12945 / ASTM D3512
- Bursting strength – ISO 13938 / ASTM D3786

Chemical Testing

Identify and control hazardous substances in line with international regulations.

- REACH compliance testing and SVHC screening
- CPSIA compliance testing for lead and phthalates
- Azo dyes – ISO 14362
- Formaldehyde – ISO 14184-1 / AATCC 112
- Heavy metals – ICP-MS / EN 16711
- Phthalates – GC-MS analysis
- pH value – ISO 3071 / AATCC 81

Performance Testing

Assess product performance under real-use and environmental conditions.

- Colourfastness to washing – ISO 105-C06 / AATCC 61

- Colourfastness to water – ISO 105-E01 / AATCC 107

- Colourfastness to rubbing – ISO 105-X12 / AATCC 8
- Colourfastness to light – ISO 105-B02 / AATCC 16
- Colourfastness to perspiration – ISO 105-E04 / AATCC 15
- Zip performance – ASTM D2061 / BS EN 16732

Product Safety Testing

- Flammability Testing

Support compliance with flammability and children's safety regulations.

- Flammability of textiles – 16 CFR Part 1610 (USA)
- Children's sleepwear – 16 CFR Part 1615/1616 (USA)
- Children's sleepwear – CAN/CGSB-4.2 No. 27.5 / SOR/2016-169 (Canada)
- Flame spread testing – ISO 6941 / BS EN 14878 (EU)
- Sleepwear flammability – BS 5722 (UK)

- Children's Safety Testing

- Small parts and choking hazards – ASTM F963 / EN 71-1
- Security attachment testing – CEN/TS 17394-3/4, EN 17394-2
- Cords and drawstrings – ASTM F1816 / EN 14682



Functional Textile Testing

Verify advanced textile performance characteristics.

- UV protection – AS/NZS 4399 / AATCC 183 / EN 13758
- Thermal resistance – ISO 11092
- Moisture vapour transmission – ASTM E96 / BS 7209
- Wicking performance – AATCC 197 / AATCC 213
- Water repellency – AATCC 22 / ISO 4920
- Water resistance – AATCC 127 / ISO 811
- Air permeability – ISO 9237 / ASTM D737
- Moisture management – AATCC 195

Eco & Sustainability Testing

Support sustainable manufacturing and chemical management initiatives.

- OEKO-TEX® Standard 100 aligned testing
- ZDHC MRSL conformance screening
- Wastewater and environmental parameter testing
- Restricted substance verification for sustainable supply chains

Labelling & Compliance Verification

Support accurate product labelling and regulatory conformity.

- Fibre composition – ISO 1833
- Care labelling verification – ISO 3758
- Country-specific labelling requirements for EU, USA, and other markets

Inspection Services

Support quality assurance throughout the production lifecycle.

- Pre-Production Inspection (PPI)
- During Production Inspection (DUPRO)
- Final Random Inspection (FRI) based on AQL and ISO 2859

Factory Audits & Supply Chain Assurance

Strengthen supply chain transparency and operational compliance.

- Social compliance audits, including amfori BSCI and SMETA
- Technical factory audits
- Process and quality system assessments
- Supplier risk evaluations

OUR TESTING PROCESS

Our structured approach supports efficiency, transparency, and confidence.

- **Sample Submission:**
Define the testing scope based on product category and target market requirements.
- **Laboratory Testing:**
Testing is conducted using validated methods and calibrated equipment.

▪ **Evaluation & Reporting:**

Independent and reliable test reports aligned with international standards.

▪ **Certification Support:**

Guidance on compliance pathways and certification requirements.

STANDARDS & REGULATIONS

We support compliance with major international standards and regulatory frameworks.

- REACH (EU)
- CPSIA (USA)
- ISO and ASTM standards
- AATCC test methods
- OEKO-TEX® requirements
- ZDHC MRSL
- Brand and retailer-specific protocols

KEY BENEFITS

Working with TÜV Rheinland helps you:

- Reduce regulatory and compliance risks
- Minimise shipment rejections, recalls, and penalties
- Strengthen product performance and consistency
- Protect brand reputation through independent verification
- Ensure consistency between sample and bulk production
- Support faster and smoother market access
- Make informed decisions based on reliable test data
- Enhance sustainability and supply chain transparency

WHY TÜV RHEINLAND

We act as an independent and trusted partner, supporting long-term business success.

- Independent, impartial, and transparent approach
- Strong technical expertise and industry knowledge
- Highly qualified experts and precise methodologies
- Global standards with strong local execution in Bangladesh
- Integrated support across testing, inspection, and auditing
- Reliable results with efficient turnaround times
- Trusted partner for quality, compliance, and sustainable growth

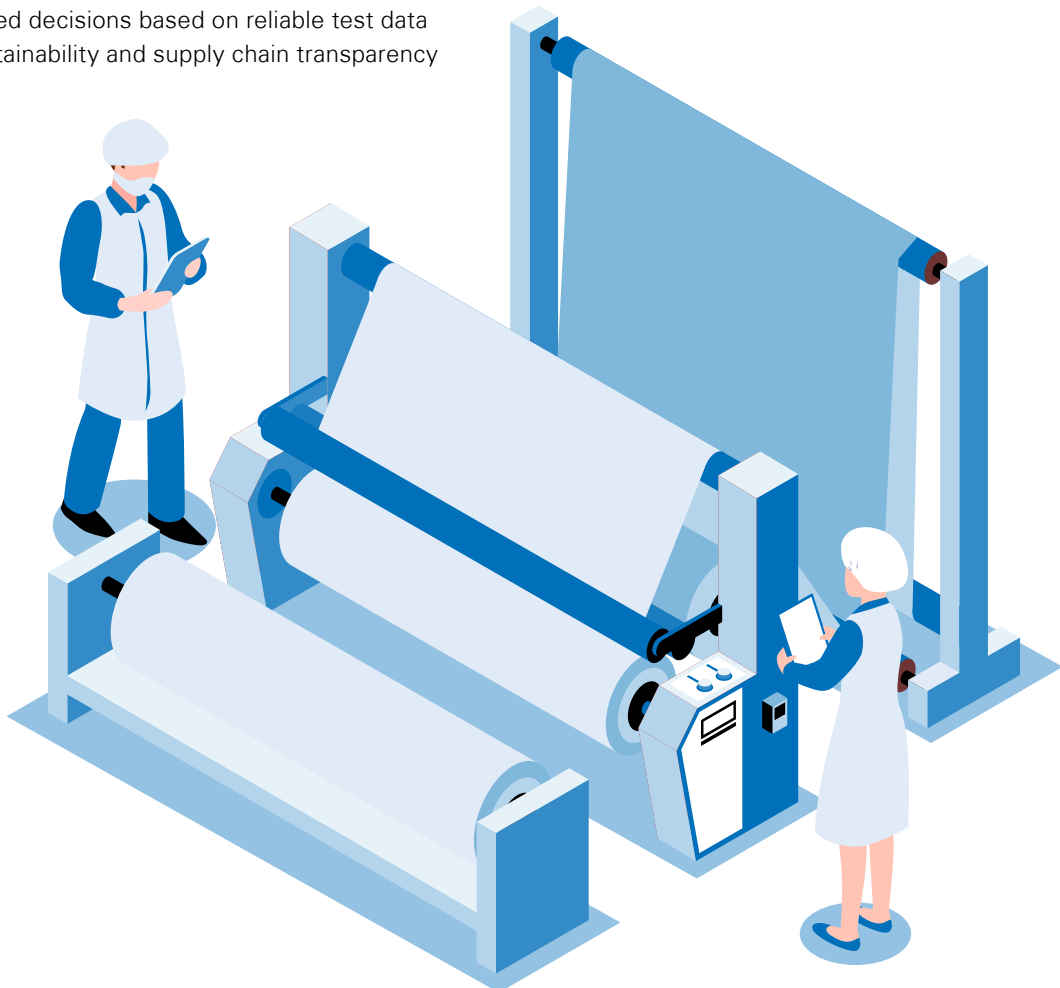
We support your business with technical confidence, clarity, and reliability.

PARTNER WITH TÜV RHEINLAND

Support compliance. Strengthen safety. Enhance product quality. Build trust across global markets.

TÜV Rheinland helps textile and apparel businesses move forward with confidence through reliable testing, inspection, auditing, and compliance solutions.

TÜV Rheinland – We make the world a safer place.







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KNOW MORE ABOUT
OUR SERVICES

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