



# SERVICE SUMMARY

Accredited test laboratory  
and research provider

## TESTING, CERTIFICATION, RESEARCH, AND DEVELOPMENT AROUND THE THEME OF TEXTILES – COMPLETELY FROM ONE SOURCE.

About 10,000 customers worldwide profit not only from the competence of over 550 employees at the Hohenstein Headquarters in Boennigheim, Germany, but also from a global network of international offices in more than 40 countries. Our expert teams on site are able to offer you our diversified range of products and services in all major textile production and shopping regions.

For more than 70 years we have been specializing in the testing and certification of textile products of all kinds. We are very familiar with all industrial processes which allows us to offer custom made testing and service proposals for individual requirements. We will support you in solving problems each step of your production process, and will help you in marketing the products tested by us with certificates and labels – both in the B2B area and with the end user.

As an independent third-party laboratory in line with the Council Directives concerning medical devices we only perform tests on medical devices as part of our accreditation.



### IMPRINT

Hohenstein  
Schlosssteige 1 · 74357 Boennigheim · GERMANY  
Phone: +49 (0)7143 271-898  
Email: sales@hohenstein.com

Managing Directors: Prof. Dr. Stefan Mecheels | Dr. Stefan Droste | Florian Girmond  
Dr. Timo Hammer | Prof. Dr. Dirk Höfer  
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## OUR SERVICES

Testing and Certification,  
Inspection and Audit

### TEXTILE TESTING - CHEMICAL AND TECHNOLOGICAL TEXTILE TESTS

- Tests for harmful substances on textiles (REACH, LFGB, CPSIA, individual RSLs, etc.)
- Preparation of expert reports in cases of damage
- Testing the material quality of textiles (colour fastness, pilling, waterproofness, fineness of fibres, etc.)
- Determining the fibre composition (Textile Labelling Act)
- Measuring behaviour during care processes
- Advice for the retail sector on drawing up quality guidelines
- Independent quality controls

### FIT AND WORKMANSHIP

- Survey of workmanship and fit
- Checking and improvement of the finished measurement charts
- Testing for conformity with DIN EN 14682 (Cords Standard)
- Providing advice to the clothing industry and retail sector

### PATTERN SERVICE

- Pattern service
- Consulting for pattern making and fitting
- Workshops of pattern making and fit, open to any sector of industry or individual for companies on-site
- Customised support on individual projects

### INSPECTION SERVICE

- Quality testing in line with AQL (DIN ISO 2859-1)
- Verification of sample compliance
- Verification of finished dimensions using a finished dimensions table
- Checking of productions quantities, product packaging and labelling
- Verification of EAN code readability
- Taking of samples for testing for chemical and physical parameters as well as material composition

### OEKO-TEX® | PRODUCT PORTFOLIO

- ECO PASSPORT by OEKO-TEX®: Testing and verification of chemicals as a proof for qualified input in sustainable textile production
- DETOX TO ZERO by OEKO-TEX® enables the determination of the status of your chemical management as well as the performance of the quality of waste-water and sludge for the Greenpeace detox requirement
- Auditing and certification of socially responsible and environmentally friendly textile production facilities according to STeP by OEKO-TEX®
- Textile testing for human ecological harmlessness and quality according to STANDARD 100 by OEKO-TEX®
- Product labelling MADE IN GREEN by OEKO-TEX® for textiles tested for harmful substances and sustainably produced
- LEATHER STANDARD by OEKO-TEX® a certification system for leather goods of all levels of production tested for harmful substances
- Transparent visualization of supply chain relationships, statistical analysis and evaluation, as well as managing OEKO-TEX® certificates with the database MySTeP by OEKO-TEX®
- OEKO-TEX® Buying Guide offers the opportunity to present and search for OEKO-TEX® certified products and companies throughout the whole textile chain



OEKO-TEX® system provides support for your sustainable commitment.

## OUR SERVICES

Testing and Certification

### PRODUCT PERFORMANCE & CLOTHING PHYSIOLOGY

- Quantitative measurement and assessment of the comfort of textiles and clothing, as well as the climatic comfort of vehicle seats and upholstered furniture
- Developing guidelines for the construction of physiologically optimised textiles and clothing systems
- Comfort tests on sleeping bags and duvets
- Testing of clothing for breathability and thermal insulation
- IR reflectance measurements (determination of total energy outlet / g-factor)
- Testing of socks and shoes for comfort characteristics
- Determination of performance of heating and cooling textiles (WATson)
- Skin sensory properties of textiles
- Test of medical bandages and compression articles

### TEST CENTRE PERSONAL PROTECTIVE EQUIPMENT

- Testing protective clothing, work wear, industrial clothing, protective gloves and related preliminary products to regulatory standards
- Certification of protective clothing (type examination test for the CE label)
- Accredited testing and certification centre for personal protective equipment (notified body 0555)
- Requirements analyses, design, size and processingspecifications
- Performance tests, acceptance analyses and quality control

### MANAGEMENT SYSTEMS

The management systems can be certified according to worldwide standards in all companies along the textile supply chain

- Environmental management systems according to ISO 14001
- Quality management systems according to ISO 9001

### PROFESSIONAL TEXTILE CARE & TEXTILE LEASING

- Quality assurance and quality control in industrial laundries according to RAL-GZ 992
- Assistance with the industrial cleaning of textiles
- Support and advice on hygiene management
- Operation analysis, management consultancy, benchmarking in laundries
- Damage assessment and troubleshooting in laundries - professional support with problems
- Testing and certification of new technologies
- Environmental analysis, e.g. waste water analysis
- Testing and certification of work wear, industrial clothing, protective clothing, corporate fashion and related preliminaryproducts for suitability for industrial cleaning
- Suitability test and certification according to Hohenstein quality standard 701 "Requirements catalogue for purchasing of textiles suitable for leasing" (e.g. for industrial clothing, shirts and blouses, polos and shirts, business wear, bed and table linen)
- Testing and certification of work wear for food handling, processing, and preparation companies for conformance with standards (DIN 10524)
- Providing advice on the supply of textiles in hospitals
- Consulting service on the selection and care properties ofprotective clothing for the rescue services and hazardous operations clothing
- Support and advice on the implementation of a quality-assured reprocessing of textile personal protective equipment, with the option of certification

### DOMESTIC TEXTILE CARE

- Product and target-oriented performance tests of detergents , textile care products and hand detergents
- Testing domestic laundry equipment (special washing, drying programmes according to individual test plans) following EN 61121

## OUR SERVICES

Testing and Certification

### TEXTILE UV PROTECTION

- Determining the UV-protection factor UPF according to
  - UV Standard 801
  - the Australia/New Zealand Standard AS/NZS 4399:1996
  - European Standard EN 13758-1
  - American Standard AATCC 183
- Support with the selection of materials in terms of colour,material construction, finish etc.
- Support with product development to optimise the UV protection factor during design

### COLOUR MEASUREMENT AND WHITENESS ASSESSMENT

- Instrumental colour and whiteness measurements on a variety of substrates
- Hohenstein whiteness scale to calibrate the UV spectrum of colorimeters
- Hohenstein Illumination Checker to control the illumination conditions of colorimeters
- Pass / fail reports to check colour conformity
- Colour measurement according to DIN EN ISO 20471 (high-visibility colours)

### PERFORMANCE APPAREL WITH COMPRESSION

- Testing compression of textile medical products and functional textiles (RAL-GZ 387/1/2; DIN 58133) e.g. compression stockings, travel socks, sport socks and shapewear)

### COMPARATIVE PRODUCT TESTS

- Comparative product tests on textiles, clothing and textile/textile-related consumer products according to predetermined and individual test plans
- Performance tests on textile/textile-related products according to predetermined and individual test plans

### TOY TESTING

- Mechanical and physical properties (EN 71-1)
- Flammability (EN 71-2)
- Migration of certain elements (EN 71-3)
- Organic chemical compounds (EN 71-9/10/11)
- N-nitrosamines and N-nitrosatable substances (EN 71-12)
- Safety of electric and battery-powered toys (EN 62115) incl. EMC testing



Testing of shading textiles

## OUR SERVICES

### Testing and Certification

#### HYGIENE

- Testing and certification of antibacterial, antimycotic and antiviral efficacy of textiles and consumer goods
- Specialist consulting services for hygiene management of facilities and products (operational hygiene)
  - support for creating hygiene plans
  - support for health and safety measures
  - microbiological examinations on water, food, environments, surfaces as well as automatic cleaning and disinfecting devices
- Testing and certification of textiles in hygiene applications, e.g.
  - barrier effect of medical textiles/surgical textiles
  - microbiological purity of e.g. natural products (feathers / down)
- Effectiveness testing of cleaning and disinfection processes using bioindicators (e.g. sterilisers, dishwashers, commercial and household washing procedures)
- Specialist hygiene certificates for listing disinfection processes
- Research/further development of textiles and other products in hygiene applications (e.g. for infection prevention)

#### ENVIRONMENT

- Assessment of environmental compatibility/ ecotoxicology of textiles and plastics (soil burial tests)
- Determination of toxicological properties of nanostructured products
- Determination of the effectiveness in protection against insects (e.g. mites, yellow-fever mosquitoes)
- Genotyping of organisms as well as natural textile products (e.g. genetically modified cotton)

#### MEDICINE

- Assessment of the interaction between textiles and humans on cell systems, skin or test persons
  - testing for skin friendly properties (exclusion of damage to cells, genetic damage and allergic potential), biocompatibility
  - release and skin penetration of substances from textile depot structures
  - custom tailored wear trials
- Skin irritation
  - distinction between chemical and mechanical irritation by textiles
- Recording of physical reactions
  - determination of the effect of clothing systems on the human mental capacity (work results)
  - effect of textiles on physiological and neuronal bio-markers (e.g. allergy and stress potentials, buying decision at POS)

- Qualitative and quantitative evaluation of odour from textiles and clothing
  - Odour binding, reduction, assessment, emission (in vitro or in wear trials)
- Research/further development of bio-based high-tech materials and technical textiles in environmental applications (e.g. agrotextiles)

## INNOVATION

### Research and Development

#### RESEARCH & DEVELOPMENT

Profit from our interdisciplinary cooperation with textile engineers, chemists, physicians, biologists, and physicists. At your disposal as cooperation partners for public research or as partner for customer specific and practical contract research. The experts within the Hohenstein Group with many years of experience will be happy to support you in finding solutions for individual questions. As an independent third-party laboratory in line with the Council Directives concerning medical devices we only perform tests on medical devices as part of our accreditation.

#### EDUCATION AND TRAINING

- Training in terms of seminars, workshops, customized training, and conferences
- Apprenticeship into the professions of textile laboratory assistant, electronic engineers for development of applications and system integration, specialist for office management and marketing communication
- Mentoring of a bachelor-, master- and/or doctoral thesis as well as internship semesters



Insight into one of the Hohenstein labs for harmful substances testing

**DO YOU HAVE ANY QUESTIONS OR  
REQUIRE ADDITIONAL INFORMATION?**

Please feel free to contact us.

**Hohenstein**

Hohenstein Sales Department  
Schlosssteige 1  
74357 Boennigheim  
GERMANY

Phone: +49 (0)7143 271 898  
Email: [sales@hohenstein.com](mailto:sales@hohenstein.com)

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