



HOHENSTEIN

# HOHENSTEIN LABORATORIES

## TESTING & CERTIFICATION SERVICES



## LEGAL NOTICE

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The appointed and accredited conformity assessment bodies and their staff perform the tests, evaluations and certifications independently and impartially. These are subject to the confidentiality obligation and any conflicts of interest that arise are to be reported. No development, consulting, training or similar activity is carried out by the employees in the appointed and accredited conformity assessment bodies. The possibility of exchanging technical information between the client and the employees of the appointed and accredited conformity assessment bodies is not excluded thereby.

# HOHENSTEIN LABORATORIES

## ACCREDITED TESTING AND RESEARCH SERVICES

For over 75 years, Hohenstein has been a trusted, family-owned partner specializing in testing, certification and research. While we started in the textile industry, our expertise now spans a wide range of sectors, including softlines, hardlines, and medical devices. With a global team of over 1,200 experts, Hohenstein offers comprehensive support: from harmful substance testing and performance assessments to customized compliance and development plans. We support the entire value chain with smart, efficient solutions that reduce risk, improve products and validate claims.

As founding member of OEKO-TEX®, Hohenstein is the largest member laboratory. We offer the entire OEKO-TEX® portfolio of certifications and labels for sustainable materials, products and processes.

Accredited and recognized, our labs provide objective verification of non-GMO (organic) cotton and support sustainable product development through microplastic analysis and environmental impact assessments.

The certification of production facilities for ecological and social criteria serves as proof of sustainable manufacturing processes and fair working conditions.

Comparative product tests provide credible information about development potential and greater market transparency.

Through the Hohenstein Academy, we provide a comprehensive range of training programs, both in-person and online.

**THE FUTURE  
DEPENDS ON WHAT  
YOU DO TODAY!**

M. GANDHI



# EXPERTISE

## COMPLIANCE: LEGAL REQUIREMENTS

- **Regulation (EU) 2016/425 on personal protective equipment**
- **Regulation (EU) 2017/745 on medical devices, MDR**
- **Consumer Goods Regulations**
- **Regulation (EG) 1935/2004 on food contact materials and articles**
- **RAL-GZ 992/1-4 Responsible Textile Service**
- **RAL-GZ 387/1-3 Medical compression stockings**
- **Product Safety Regulation (EU) 2023/988**
- **REACH Regulation (EU) 1907/2006**
- **POP Regulation (EU) 2019/1021**
- **Supply Chain Due Diligence Act**

## OUR SERVICES:

### SOFTLINES

**Textile care:** Efficacy in industrial and domestic environment

**Workwear:** Optimum safety in the workplace

**Fit & pattern:** Traditional and digital solutions, customized to your requirements

**Functionality/Material performance:** Top performance through practical laboratory tests

**Sustainability:** Environmentally conscious for future generations

**OEKO-TEX®:** Certifications

**Health:** Minimise risk, prevent disease, guarantee hygiene

### MEDICAL DEVICES

**Testing of medical textiles & products:** Neutral proof of safety and efficacy

### HARDLINES

**Testing of hard goods:** Safety and fitness for use for consumer and everyday use

# SOFTLINES

## **TEXTILE CARE:** EFFICACY IN INDUSTRIAL AND DOMESTIC ENVIRONMENT

- Testing and certification of commercial textile care
- Testing of detergents, cleaning products and appliances for domestic laundry care



## **WORKWEAR:** OPTIMUM SAFETY IN THE WORKPLACE

- Testing and certification (CE-Mark) of Personal Protective Equipment (PPE)
- Testing of workwear, uniforms and corporate fashion





## **FIT & PATTERN:**

### TRADITIONAL AND DIGITAL SOLUTIONS, CUSTOMISED TO YOUR REQUIREMENTS

- **Clothing sizes and market shares** – development of size charts based on body data from serial measurements
- **Optimisation of finished size charts**
- **Fit testing of size sets and production goods:** women's, men's and children's clothing
- **Support level assessments for sports bras** with the “MODY” testing device
- **Hohenstein Quality Label** for marketing the fit of your clothing
- **Technical performance descriptions** and inspections
- **Safety of children's clothing** (DIN EN 14682, BS 7907)
- **Basic and model patterns** - creation, grading and optimisation
- **3D body scanning** to visualise your target group
- **3D product development:** avatars for development, 3D visualisation and digital fitting
- **Training courses, workshops, seminars** – standard or customised to your needs – fit, pattern and 3D



## FUNCTIONALITY/MATERIAL PERFORMANCE: TOP PERFORMANCE THROUGH PRACTICAL LABORATORY TESTS

- **Odour management** via qualitative and quantitative investigations
- **Biocides**
  - Proof of efficacy
  - Tier approach
- **Determination of the wearing comfort of clothing** based on parameters such as
  - Thermal insulation
  - Breathability
  - Sweat management
  - Cooling effect
  - Skin-sensorial properties
- **Sleeping comfort** of bedding: Thermal insulation, breathability, fit for use, and much more
- **Comparative product tests** of textile or textile-related consumer goods
- **Functionality assessments** such as protection against wind and rain, microbes, UV protection, etc.
- **Compression textiles** for medicine, sport and leisure
- **Performance tests** for absorbent textiles
  - Absorbant underwear for performance and safety (method: Femtech-MAS 6513-1:2023 and Femtech-MAS 6514-1:2023)



## **SUSTAINABILITY:** ENVIRONMENTALLY CONSCIOUS FOR FUTURE GENERATIONS

- **OEKO-TEX® MADE IN GREEN:** Label for products that have been tested for harmful substances and are produced sustainably in a socially responsible workplace
- **OEKO-TEX® SteP:** Certification for environmentally friendly and socially responsible production conditions
- **OEKO-TEX® RESPONSIBLE BUSINESS:** Management tool for meeting corporate due diligence requirements in the textile and leather industries (Supply Chain Due Diligence Act)
- **Green Button:** Authorized certification body for the German product label
- **Testing of cotton for genetically modified organisms (GMOs)**  
Screening according to ISO IWA 32, identification and quantification
- **Analysis of waste water** from production
- **Determination of fibre release** during the washing of textiles
- **Biodegradation:** Analysis of the biodegradability of textiles in soil and waste water, and determination of the impact to animals and eco systems

## **OEKO-TEX®:** CERTIFICATIONS

- **OEKO-TEX® STANDARD 100 and LEATHER STANDARD:** Globally standardised, independent testing and certification systems for textile and leather, raw materials, intermediate and end products at all stages of production, including accessories
- **OEKO-TEX® ECO PASSPORT:** Globally standardised, independent testing and certification system for colourants, auxiliaries and other chemicals used in the textile, leather, apparel and footwear industries



## OEKO-TEX®: CERTIFICATIONS

**OEKO-TEX® ORGANIC COTTON:** Globally standardised, independent testing and certification system for textile raw materials, intermediate and end products that contain more than 70% organic cotton. In addition to testing for harmful substances, the focus is on ensuring the organic origin of the cotton used and its traceability within the supply chain.

## HEALTH: MINIMISE RISK, PREVENT DISEASE, GUARANTEE HYGIENE

- **Testing and certification of hygiene**
- **Testing and certification** (EU type examination in accordance with Regulation (EU) 2016/425) of **FFP masks** (DIN EN 149)
- Testing of **protective clothing against infectious agents** (DIN EN 14126)
- **Biocompatibility testing** for compatibility with skin, mucous membranes and immune systems
- **Examination of material properties, damage, storage stability and ageing**
- Testing and certification of the **UV protection effect of textiles**
- Testing and certification of **chemical protective gloves and clothing**, types 3 - 6
- **Medical face mask testing** (DIN EN 14683)

# MEDICAL DEVICES



## TESTING OF MEDICAL TEXTILES & PRODUCTS: NEUTRAL PROOF OF SAFETY AND EFFICACY

### BIOCOMPATIBILITY

- **Chemical characterisation** (DIN EN ISO 10993-18)
- **Cytotoxicity** (DIN EN ISO 10993-5)
- **In-vitro sensitisation** (DIN EN ISO 10993-10, appendix C)
- **Irritation test** (DIN EN ISO 10993-23)
- **Assessment of the biocompatibility of breathing gas pathways** (DIN EN ISO 18562)

### PRODUCT PERFORMANCE

- **Evaluation of medical compression textiles**
- **Requirement tests for surgical textiles and medical masks**
- **Efficacy testing of disinfectants** for surfaces, instruments and textiles
- **Impact assessment of usage cycles and material ageing**

### CLEANLINESS

- **Microbiological cleanliness** the products (bioburden)
- **Detection of bacterial endotoxins**
- **Surface analysis SEM/EDX**

# HARDLINES



## **TESTING OF HARD GOODS:** SAFETY AND FITNESS FOR USE FOR CONSUMER AND EVERYDAY USE

Our accredited hardlines testing connects everyday home life and hobbies with neutral proof of safety and performance for use.

### **PRODUCT GROUPS:**

- Cookware & kitchenware
- Pet supplies
- Toys
- Travel luggage and backpacks
- Household articles
- Child care products
- Garden tools
- Camping and outdoor products
- Inflatables
- Fitness equipment
- Office and craft supplies
- DIY tools
- Hand carts and much more

### **TESTING SERVICES:**

- Chemical safety tests
- Chemical tests of food contact materials
- Mechanical safety tests
- Fit for use tests  
(functional performance and durability)
- Physical tests of hardlines and textile materials
- Material analysis
- Artwork checks (labelling, package layout and user manuals)
- Exclusive testing to obtain the Hohenstein Quality Label  
(covering the safety and performance for use of pet supplies, luggage, toys, etc.)

# TRUST AND KNOWLEDGE

## MAKE A MARK WITH QUALITY

Our tailored solutions help you navigate increasingly challenging market requirements and transparently document your efforts. Our quality and sustainability seals provide a clear signal of your dedication to your customers.



### Hohenstein Quality Label

The quick way for consumers to identify rigorously tested, high quality products.



### OEKO-TEX®

Independent certifications and labels to improve sustainability and product stewardship along the value chain.



### RAL Quality Certification Mark RAL-GZ 992

A quality mark for commercial laundries in the German Certification Association for Responsible Textile Services denoting a commitment to high quality and hygiene standards in laundry care.



### RAL Quality Certification Mark RAL-GZ 387

A certification for medical compression stockings with reliable and specific pressure and pressure profiles.



### UV STANDARD 801

Standardised measuring methods and specialised, use-oriented testing for reliable determination of the UV protection factor of textile materials.

# HOHENSTEIN ACADEMY

## APPLIED RESEARCH – PRACTICAL TRAINING

### Research

We collaborate on public research projects and provide practical research services tailored to customer requirements. Learn from our interdisciplinary team of (textile) engineers, chemists, biologists, physicists and medical scientists.



### Present services transparently and expand expertise through research and teaching.

Hohenstein specialists pass on their knowledge in lectures, conferences, workshops, trainings and events - both analog and digital. You can find training dates, webcasts and video tutorials at [www.hohenstein-academy.com](http://www.hohenstein-academy.com).





**YOUR GLOBAL PARTNER FOR TESTING EXPERTISE**

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