



HOHENSTEIN

HOHENSTEIN LABORATORIES

TESTING & CERTIFICATION SERVICES



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

M. GANDHI



HOHENSTEIN LABORATORIES

ACCREDITED TESTING AND RESEARCH SERVICES

For over 75 years, Hohenstein has been a **trusted 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**.

A founding member of **OEKO-TEX®**, Hohenstein is the largest member laboratory, offering the entire OEKO-TEX® portfolio of certifications and labels for **protecting people and planet**. The scientific standards are practical tools for more responsible 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.

Our facility certifications ensure compliance with **ecological and social standards** for proof of fair and sustainable production practices.

Comparative product tests put **credible data** behind product developments and greater market transparency.

Through the Hohenstein Academy, we provide a range of **practical training** designed to advance the industry, both in-person and on-line, designed to advance the industry.

EXPERTISE

SERVICES:

SOFTLINES

Sustainability: Environmentally conscious development & verification

Functionality: Top performance through use-focused, practical laboratory tests

Quality & Compliance: Alignment with internal, global, customized standards

Health: Minimize risk, prevent disease, guarantee hygiene

Fit & pattern: Traditional & digital solutions, customized to your needs

Textile care: Efficacy & washability in industrial & domestic environments

OEKO-TEX®: Certifications to protect people & planet

Workwear & PPE: Optimized safety & performance

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

REGULATORY ASSESSMENTS:

GLOBAL COMPLIANCE

- **Consumer Goods & Product Safety** (CPSIA, Prop 65, (EU) 2023/988, etc.)
- **Supply Chain Due Diligence laws**
- **REACH** (EU) 1907/2006
- **POP** (EU) 2019/1021
- (EU) 2016/425 on **personal protective equipment**
- (EU) 2017/745 on **medical devices, MDR**
- (EG) 1935/2004 on **food contact materials & articles**
- RAL-GZ 387/1-3 **Medical compression stockings**
- RAL-GZ 992/1-4 **Responsible Textile Service**

SOFTLINES

TEXTILE CARE: EFFICACY OF DOMESTIC AND INDUSTRIAL LAUNDERING

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



WORKWEAR: OPTIMIZED SAFETY AND PERFORMANCE

- Testing, development & certification (CE-Mark) of personal protective equipment (PPE)
- Testing of workwear, uniforms & corporate fashion for comfort, fit, odor, performance, washability, etc.





FUNCTIONALITY/MATERIAL PERFORMANCE: PERFORMANCE THROUGH PRACTICAL TESTS

- **Odor management** via qualitative & quantitative studies
- **Compression textiles** for medicine, sports & leisure
- **Clothing comfort** based on parameters such as thermal insulation, breathability, sweat management, cooling effect, skin-sensorial properties
- **Sleeping comfort** with scientific assesment of bedding & bedding systems for thermal insulation, breathability, fit for use, etc.
- **Biocide** proof of efficacy & tier approach
- **Comparative product tests** of textile or textile-related consumer goods
- **Functionality assessments** such as protection against wind & rain, microbes, UV protection, etc.
- **Performance tests** e.g. for for performance & safety of absorbent textiles (Femtech-MAS 6513-1:2023 & Femtech-MAS 6514-1:2023)



FIT & PATTERN: TRADITIONAL AND DIGITAL SOLUTIONS

- **Clothing sizes & charts** developed with body data from serial measurements
- **Basic & model patterns** created, graded & optimized
- **Measurement tables** optimized & tested
- **3D/4D body scanning** to visualize your target group
- **3D product development** avatars, 3D visualization & digital fitting
- **Digitized materials** for realistic 3D visualization
- **Fit testing of size sets & production goods:** women's, men's & children's
- **Technical performance** descriptions, techpacks, inspections
- **Training:** standard or customized – fit, pattern & 3D
- **Support level assessments for bras** with “MODY” device
- **Hohenstein Quality Label** for marketing tested fit & pattern
- **Safety of children's clothing** (DIN EN 14682, BS 7907)



HEALTH: MINIMIZE RISK, PREVENT DISEASE, GUARANTEE HYGIENE

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

SUSTAINABILITY: DATA-BASED, SUSTAINABLE DEVELOPMENT

- **Testing of cotton for genetically modified organisms (GMOs)** according to ISO IWA 32 plus identification & quantification
- **Quantification of fiber release** during textile production or laundering
- **Biodegradation** analysis of textile degradation in soil & wastewater while measuring the impact on ecosystems & animals
- **Wastewater analysis** from production
- **Green Button** authorized certification body for the German product label



OEKO-TEX®:
INDEPENDENT, GLOBALLY STANDARDIZED CERTIFICATIONS & LABELS

- **OEKO-TEX® MADE IN GREEN:**
Label for products that have been tested for harmful substances & are produced sustainably in a socially responsible workplace
- **OEKO-TEX® STeP:**
Facility certification for environmentally friendly & socially responsible production
- **OEKO-TEX® RESPONSIBLE BUSINESS:**
Management tool for meeting corporate due diligence requirements in the textile & leather industries (Supply Chain Due Diligence laws)
- **OEKO-TEX® STANDARD 100 & LEATHER STANDARD:**
Testing system to protect people from harmful substances in textiles and leather - at all stages of production - and accessories
- **OEKO-TEX® ECO PASSPORT:**
Testing system for safer, more sustainable chemicals, colorants and auxiliaries used in the textile, apparel, footwear and leather industries
- **OEKO-TEX® ORGANIC COTTON:**
Testing system for raw, intermediate and end products that contain >70% organic cotton, are safe from harmful substance and have a verified organic origin and traceable supply chain.

MEDICAL DEVICES



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

BIOCOMPATIBILITY

- **Chemical characterization** (DIN EN ISO 10993-18)
- **Cytotoxicity** (DIN EN ISO 10993-5)
- **In-vitro sensitization** (DIN EN ISO 10993-10, appendix C)
- **Irritation** (DIN EN ISO 10993-23)
- **Biocompatibility** of breathing gas pathways (DIN EN ISO 18562)

PRODUCT PERFORMANCE

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

CLEANLINESS

- **Analysis** of microbiological cleanliness (bioburden)
- **Detection** of bacterial endotoxins
- **Surface analysis** SEM/EDX

HARDLINES



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

Our accredited hardlines testing provides neutral proof of consumer product safety and performance for use.

PRODUCT GROUPS:

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

TESTING SERVICES:

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

TRUST AND KNOWLEDGE

MAKE A MARK WITH QUALITY

Our tailored solutions help you navigate the ever-changing market requirements and transparently document your efforts. Our quality and sustainability labels provide a trusted signal of your commitment.



Hohenstein Quality Label

A quick way for customers to identify rigorously tested, high quality products.



OEKO-TEX®

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



UV STANDARD 801

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



Hohenstein Hygienically Clean Certification®

Independent certification for industrial laundries with they highest standards for hygiene.



RAL Quality Certification Mark RAL-GZ 387

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

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.



Knowledge Sharing

Hohenstein specialists pass on their knowledge via lectures, conferences, workshops, trainings and events - both in-person and online.



LEGAL NOTICE

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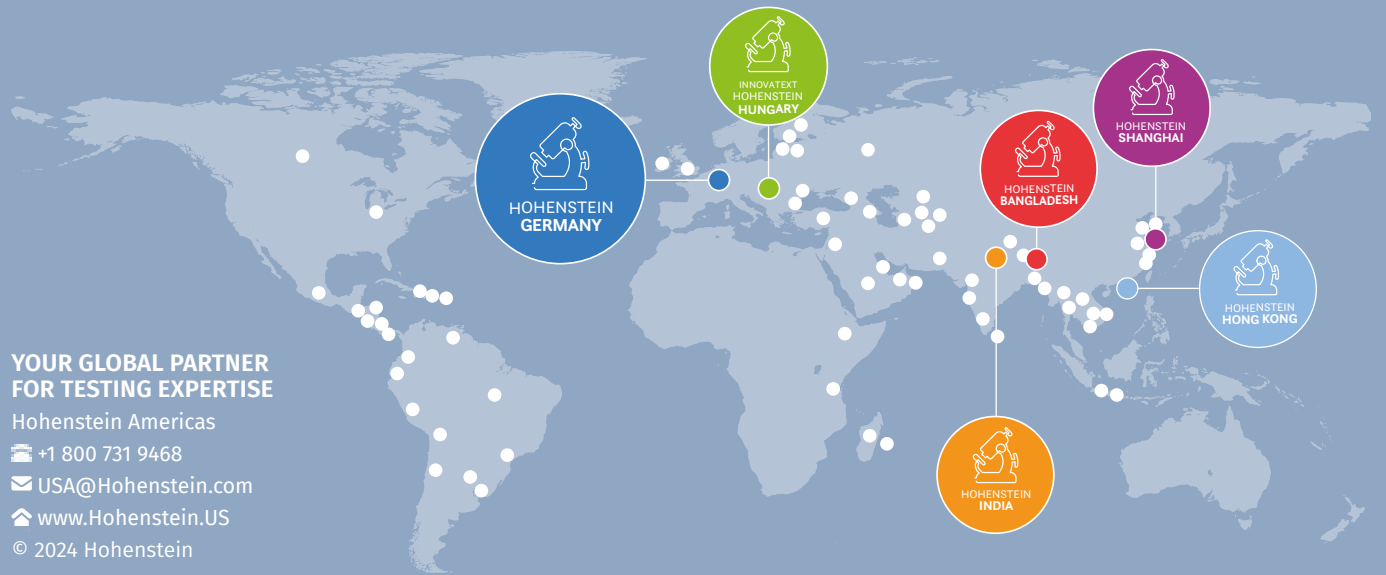
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**YOUR GLOBAL PARTNER
FOR TESTING EXPERTISE**

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