

Certification of laundries all over the world - extra cost or extra profit?

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HOHENSTEIN INSTITUTE. Competence in textiles.

Overview

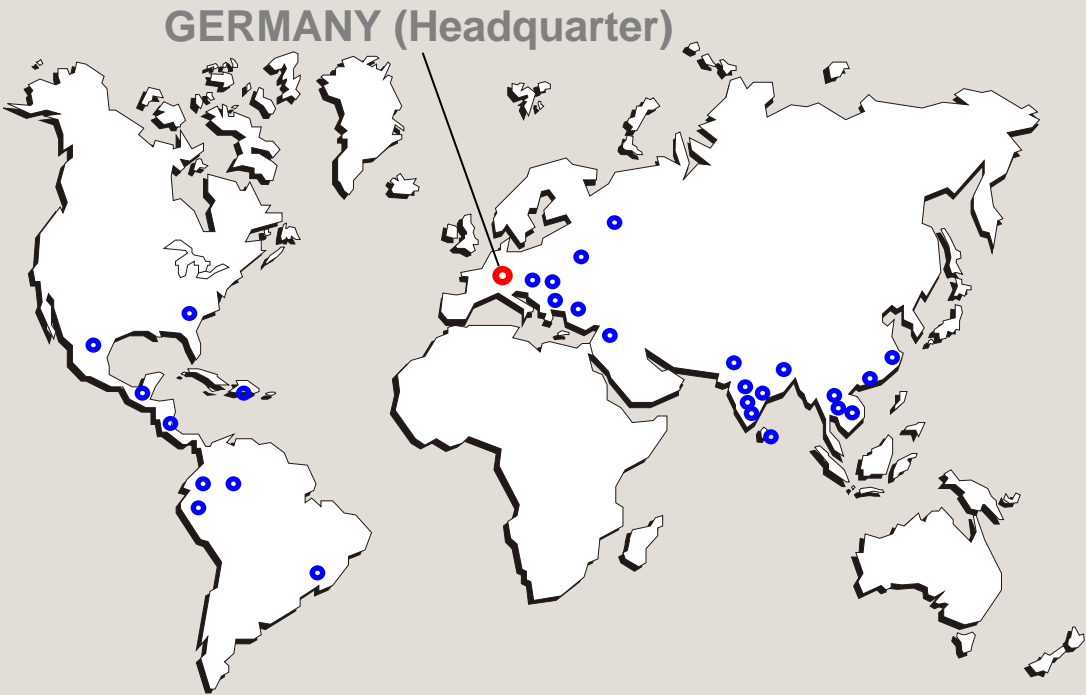
- Which economic framework conditions are to be expected for the textile service industry?
- Which evidences for professional reprocessing are expected by important consumer groups from the healthcare sector, hotel sector and industry?
- What internal advantage and benefit does a certification have for the laundry management?
- How can economic, qualitative, hygienic and ecologic requirements of the certification be brought in line?
- What will have to be done in future in order to further improve the market opportunities of the textile service industry?

Hohenstein Institute - at a glance

- Private institute for research, testing, consulting and inspections
- Non-profit research institute
- Family operated in third generation
- Technical academy: vocational and advanced training
- 300 employees at the headquarters in Boennigheim and a global network of 28 branch offices in 23 different countries and 100 employees



Serving textile business worldwide



Europe
 Bulgaria
 Hungary
 Romania
 Russia

Americas
 USA
 Mexico
 Peru
 Brasil
 Domenican
 Republic
 Columbia (2x)
 El Salvador
 Guatemala

Asia
 Turkey
 Syria
 Pakistan

 India (4x)
 Sri Lanka
 Bangladesh
 Thailand
 Cambodia
 Vietnam
 China (2x)

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RAL Quality Certification Mark 992



German Certification Association for
Professional Textile Services

Administration:
Headquarter in Hohenstein
400 Members
in 15 European countries
and
in Japan, China and United Arab Emirates

Most important areas of activities

Overview



A	Cleanliness and fundamental hygiene	Commercial Linen (hotels, institutes, industry, commerce and trade)
B	Cleanliness and high hygiene level	Textiles of Food Processing Businesses (food production, restaurants, canteen kitchens)
C	Cleanliness and highest hygiene level	Textiles of the Health Care System (hospitals, nursing homes, rehabilitation centres)

Most important areas of activities Overview (continued)



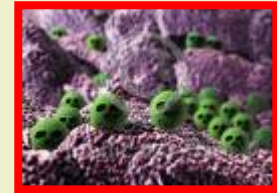
D	Cleanliness and restoration of safety properties at work	Personal Protective Clothing and Workwear
E	Environmental protection and sustainability	Processing and Administration in Industrial Laundries
F	Highly effective economy	Staff Education and Management Training

Economic conditions for textile service companies

- Financial possibilities of all social systems are limited.
- Allocation of social costs to the consumer (e.g. environmental protection, health protection, occupational safety).
- Increasing costs for resources (detergent, water and energy, textiles made of cotton).
- Outsourcing of services in many facilities is increasing (hospital, elderly homes, industry).

Health risks for the population in the Western industrialized countries

- Occurrence of antibiotic-resistant bacterial strains (MRSA).
- Increasing skin sensitivity (Neurodermatitis, UV-radiation...)
- Increase in infectious diseases (migration in Europe, travelling tourism)



Future market opportunities for textile services

- Number of textiles with specific properties which provide the textile with protective functions increases (patient, wearer or products):
 - Personal Protective Equipment (e.g. high-vis clothing)
 - Textiles for the health care sector (e.g. surgical textiles)
 - Working cloths for food processing businesses
- Professional reprocessing in line with the standards for the specific use of CE marked textiles (e.g. PPE) is mandatory.

What is it all about and what are we looking for?



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Quality requirements of “reusable” textiles:

Cleanliness

Sensorial cleanliness: Appearance, free from stains, smell, handle
Secondary Washing Effects: Whiteness, tensile strength, fibre degradation, inorganic incrustations

Hygiene

Microbiological decontamination for healthcare institutions or food processing industry incl. hotels, restaurants, catering businesses

Fabric life

Minimum damage to fabric and textile during washing and processing in order to maintain its function and quality as long as possible. Chlorine bleach only for disinfection because of environmental consideration.

Existing hygiene standards:

- USA – HLAC
- Netherlands – issued by WIP
- Belgium – issued by Raad van Volksgezondheit
- France – Afnor
- Great Britain – NHS Guidelines
- Australia/New Zealand – AS/NZS41456:2000
- RABC – EN14065
- RAL 992/2 and RAL 992/3
- International Food Standard / DIN 10524

list not complete

Preconditions and principles (main differences)

EN 14065	RAL-GZ 992
<p>Risk analysis and bio-contamination control (RABC)</p> <p>The purpose of this standard is to provide a management system to deliver an agreed level of microbiological quality acc. to the intended use of the textile in sensitive sectors, e.g. healthcare and food processing. The RABC standard does not specify a general level of hygiene. The standard does not include measures for the protection of the personnel.</p>	<p>Quality and control regulations for professional linen care</p> <p>Commercial laundries commit on a voluntary basis to keep clearly defined microbiological limits for the healthcare and food processing sector. The sustainability issue is covered by defining limits for the secondary washing effect. Safety at the workplace specified by accident prevention code.</p> <p>Regular controls are effected by an independent institute.</p> <p>There are sanctions for non compliance.</p>

Preconditions and principles (main differences)

HLAC	RAL-GZ 992
<p data-bbox="331 491 1099 635">Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities</p> <ol data-bbox="280 751 1093 1358" style="list-style-type: none"> 1. Obligation to comply with the requirements for textiles, processes and services regarding building, technology, personnel and organisation 2. Exposure Control Plan (ECP) to be defined by each company 3. No target limit values 4. Monitoring system to be defined individually with the customer 5. Corrective measures 6. Admission audit 7. Documentation 	<p data-bbox="1227 483 1917 679">Quality and test regulations for professional textile services for hospital linen and linen from food processing businesses</p> <ol data-bbox="1153 740 2000 1501" style="list-style-type: none"> 1. Obligation to comply with the requirements for textiles, processes and services regarding building, technology, personnel and organisation 2. Control points are defined independently of any particular laundry 3. Target limit values and tolerances are defined for textiles and hygiene 4. In-house and external process and product audits for the maintenance of quality 5. Corrective measures 6. First audits and unannounced repeated audits (validation) 7. Documentation

Washing cycle controls for the assessment of washing processes

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RAL-GZ 992/1, 992/2		<i>Test parameters</i>	<i>Limit value</i>
		Strength reduction	max 30 %
		Chemical deterioration	max 1.0
		Inorganic encrustation	max 1.0 %
		Tint value	max R 1.5 max G 2.49
		White quality	Basic White Value (Y-Value)
Degree of Whiteness (DW) Ganz	min 170		

Standard cotton test fabrics according to DIN 53919 (170 g/m²)

Number of washing cycles per piece: 50

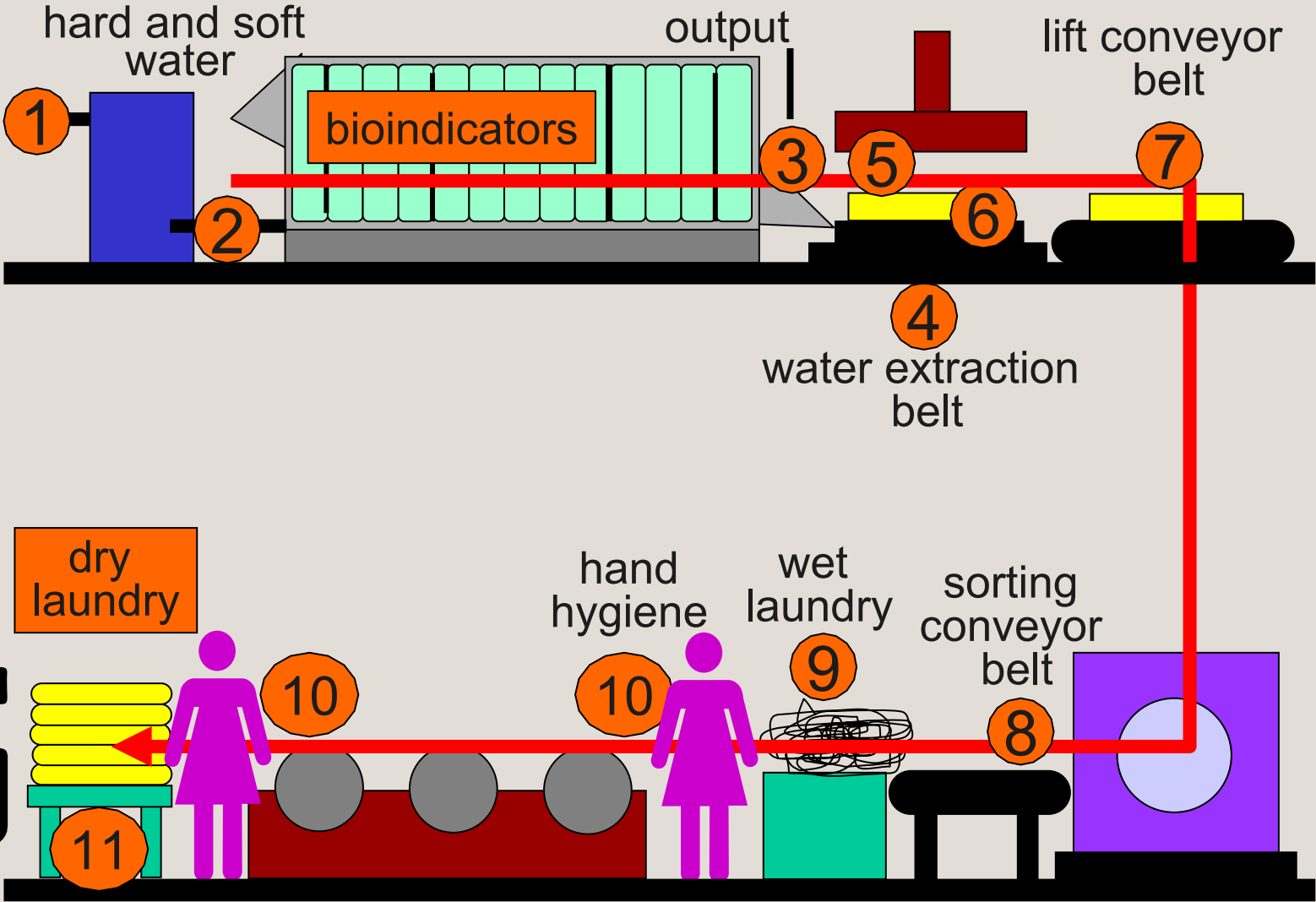
RAL-GZ 992/3		<i>Test parameters</i>	<i>Guide/ Limit values</i>
		Strength reduction	max 30 %
		Chemical deterioration	max 1.0
		Inorganic encrustation	max 1.0 %
		Tint value	max R 1.5 max G 2.49
		White quality	Basic White Value (Y-Value)
Degree of Whiteness (DW) Ganz	min 170		

Standard cotton test fabrics according to DIN 53919 (170 g/m²)

Number of washing cycles per piece: 25

RAL Hygiene Process Control

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Transport / storage

— processing path

Microbiological values		
	RAL-GZ 992/2	RAL-GZ 992/3
Limit values acc to RKI	permitted colony forming units (cfu)	permitted colony forming units (cfu)
dried linen	9 out of 10 samples not more than 20 cfu / 1 dm ²	9 out of 10 samples not more than 50 cfu / 1 dm ²
bio indicators/life bacteria	must be killed	must be killed
threshold values		
wet linen	30 cfu / 1dm ²	100 cfu / 1 dm ²
hard and raw water	100 cfu / 1ml	100 cfu / 1ml
soft water	100 cfu / 1ml	100 cfu / 1ml
drainage and rinsing process	100 cfu / 1ml	100 cfu / 1ml
guide values		
technical facilities	100 cfu / 1 dm ²	100 cfu / 1 dm ²
storage	100 cfu / 1 dm ²	100 cfu / 1 dm ²
hand hygiene	100 cfu / 1 dm ²	100 cfu / 1 dm ²
drainage prewash area	1.000 cfu / 1ml	1.000 cfu / 1ml
*Note: The textiles processed must be free of any microbiological contamination. The evaluation is carried out by microbiologists.		

Significance of the RAL Quality Mark

- The large market shares of the German Certification Association for Professional Textile Services are the result of their constant striving for optimum quality.
- The RAL Quality Mark stands for security and trust in the service quality for members and customers.
- The resources could be halved and at the same time the linen quality could be improved by using innovative technologies.

RAL-GZ 992/1



**Commercial
linen
Established
1953**

RAL-GZ 992/2




**Healthcare
linen
Established
1986**

RAL-GZ 992/3



**Linen from
food
processing
businesses
Established
1998**





ACCREDITATION GUIDE

Procedures and fees for
RAL Quality Certification for Professional
Textile Services according to RAL-GZ 992

Quality · Hygiene · Safety · Sustainability

EDITION 2010



PROFESSIONAL
TEXTILE SERVICES
QUALITY
HYGIENE · SAFETY
SUSTAINABILITY

GERMAN CERTIFICATION ASSOCIATION FOR PROFESSIONAL TEXTILE SERVICES REG.SOC.
[GÜTEGEMEINSCHAFT SACHGEMÄSSE WÄSCHEPFLEGE E.V.]

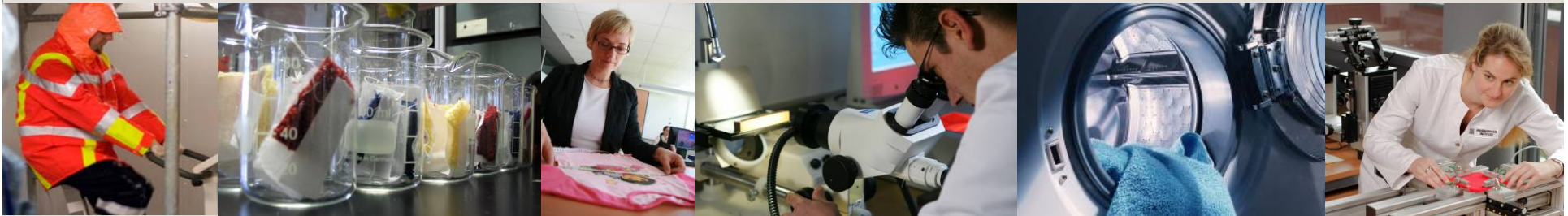
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Cost :

- Initial Fee for audit and certification
- Yearly follow on cost for revalidation



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Benefit for the laundry:

- Less non-conformities and thus less claims in operation.
- Competition needs to meet same requirements
- Cost reduction through optimized consumption of operating resources and energy.
- More gentle treatment of the linen and thus extended usability of the textiles.
- Regular tests with Hohenstein test fabrics to determine primary and secondary washing effect
- Saving of water by means of precise adjustment of the washing procedures.
- Maintaining of the high wash quality despite of the savings of resources (no gradual deterioration, as otherwise normal).
- Hygiene management with targeted application of disinfecting agents and procedures.
- Strict regulations regarding the training of the staff and the check points for the compliance with the specified behaviour pattern

Benefit for the user:

- Product with clearly defined microbiological quality standards
- Regular controls by independent and competent institute
- Sanctions for laundries not complying
“the bad boys” are eliminated
- Established system (since 1953)
- Supported by the Robert-Koch-Institut
(Department of the ministry of health, Germany)
- Sustainability
- Mandatory contingency service

Last but not least: Sustainability!

- RAL requires abandoning chlorine bleach in the main wash
- Chlorine bleach is reacting with dirt forming AOX (AOX is a sum parameter for adsorbable organic halogens and is considered to be toxic and harmful to the environment)
- Chlorine bleach is difficult to manage (temperature, ph, degradation when stored incorrectly) and can cause tremendous fibre damage and thus reduction of fabric life

Outlook

- The structural change and the dramatical price increase of traditional energy and cotton will present the textile service major challenges. However growth opportunities will also result from this development.
- By their wide range of research activities and services the Hohenstein Institutes will support the textile services companies also in future in order to help them to maintain their competitiveness and to sustainably exploit the opportunities arising in the market.

Thank you very much for your attention!

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