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PROFESSIONAL TEXTILE CARE

All about Laundry and Dry Cleaning

First Edition

Original Title: Fachwissen Professionelle Textilpflege, 1. Auflage
© 2018 by Verlag Europa-Lehrmittel, Nourney, Vollmer GmbH & Co. KG
D-42781 Haan-Gruiten, Germany

Licensed Edition:
Böwe Textile Cleaning GmbH, Germany
Seitz – The Fresher Company, Germany

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This book is based on the latest ISO standards. However, only official documents are legally valid.
International Organization for Standardization
ISO Central Secretariat
Chemin de Blandonnet 8
1214 Geneva, Switzerland,
www.iso.org

First Edition – 2026

ISBN 978-3-00-079798-9

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© 2026 English edition by Meinrad Himmelsbach, D-79098 Freiburg, Germany

<http://www.professional-textile-care.com>

Cover Design: zweiband.media, D-10587 Berlin, Germany

Compilation: zweiband.media, D-10587 Berlin, Germany

Foreword

Professional textile care is a global craft and, at the same time, a modern service that places high demands on expertise, quality, and responsibility worldwide. Whether in small businesses or large industrial facilities, skilled workers around the globe make a crucial contribution every day to preserving the value of textiles, ensuring hygiene, and using resources sustainably.

With the book at hand, *Professional Textile Care*, we have aimed to create an international standard work that provides practical, up-to-date, and sound knowledge for everyone working in this field—regardless of country, language, or company size. It brings together the experience and expertise of numerous specialists from different regions, disciplines, and cultures.

We would like to express our sincere thanks to everyone who contributed to the creation of this book—whether through specialist articles, editorial work, translations, illustrations, or critical support. Your support makes this work a joint project of the global textile care industry.

At the same time, we see this book as a living project that can continue to grow. We therefore cordially invite all readers to participate in its further development—with comments, additions, or new content. Only through open, international exchange can specialist knowledge remain dynamic, relevant, and sustainable.

Please do not hesitate to contact us by email: mail@professional-textile-care.com

With this in mind, we hope you enjoy reading this publication and wish you every success in your daily work—wherever you are in the world.

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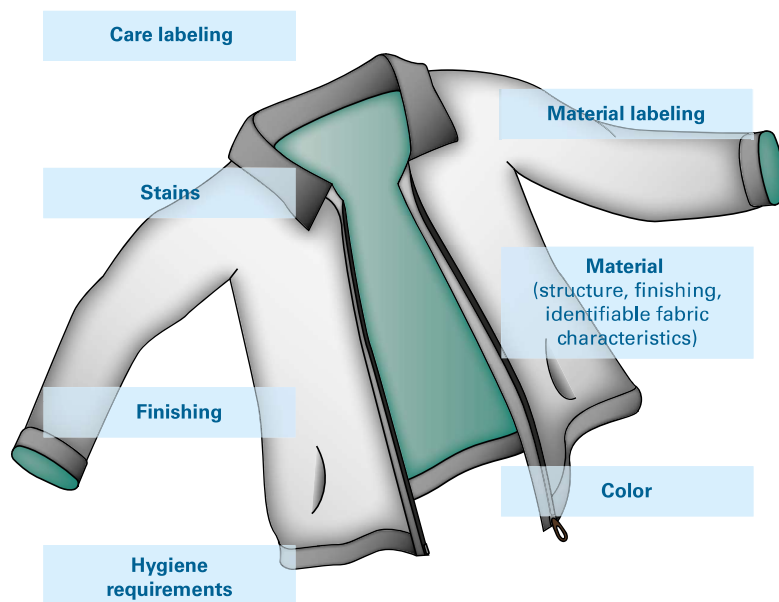
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9.2 Laundry Classification

9.2.1 Classification Criteria



1 Classification criteria

The classification of textile products aims to select the appropriate care method for each type, ensuring effective dirt removal while preventing fabric damage. From a legal perspective, when handling textiles owned by customers, there is a special duty of care based on a fundamental principle in social relations, which holds legal value in many countries:

"Anyone who intentionally or unintentionally infringes upon the life, body, health, freedom, property, or legal rights of another person is responsible for compensating for the resulting damage."

In most professional laundry facilities, incoming textile products must be classified based on different washing or cleaning methods. The order in which the following classification criteria 1 are applied may vary between facilities.

Care labels and material labels provide initial guidance on suitable washing or cleaning methods. The level of soiling, material characteristics, fabric structure, equipment, or visible features are other crucial factors in sorting items for processing. Even the final finishing process may play a role in this classification.

Besides technical factors, operational requirements such as staffing and logistics, i.e., the economic efficiency of a professional textile care facility, also influence how batches are grouped.

Before proceeding with the chosen method, classification by color is necessary, distinguishing between light and dark items. This important classification criterion should be rechecked when loading the machine. Naturally, for occupational safety reasons, the hygiene condition of delivered textile products must also be considered.



2 Care label

Care Labels

In addition to material labels, international care labels are often attached (see page 158). These labels indicate the maximum handling methods tested by the manufacturer through valid international symbols 2. Various care labeling systems are presented in Chapter 8. Adhering to these technical treatment limits helps minimize damage during processing.

Besides symbols, the labels often include written care instructions. If damage occurs in a laundry facility despite following the care instructions correctly, liability towards the customer may be denied. In recent years, some textile products have also been labeled with information about their durability in industrial laundry processes (see page 161).



3 Material label

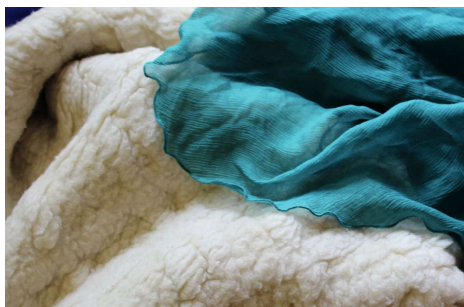
Material Labels

Material labels are typically required by law. In the European Union, for example, regulations mandate fabric labeling. If not removed upon purchase, these labels are usually sewn into most textile products. The label contains essential information that can be inferred based on fabric knowledge.

For work uniforms, labels often include symbols indicating protective functions and related treatment processes (see page 162).



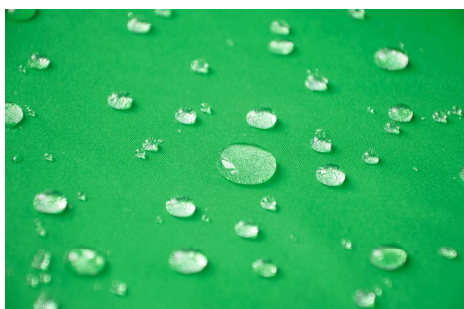
1 Extremely dirty clothes



2 Thin and thick items



3 Jackets with the ability to release lint (light) and absorb lint (dark)



4 Soaked and treated items



5 Towels (ready dry and fold) and bed linens (pre-dry and iron)

Dirt Classification

When categorizing textiles based on dirt levels, heavily soiled items are assigned to specific cleaning processes. For example, textiles from the meat or fish processing industries require specialized procedures. Fabrics contaminated with mineral oils or grease are particularly suited for solvent-based cleaning, as solvents effectively dissolve fats [1](#). In contrast, hotel bed linens, typically used for only one night, follow an optimized low-soil wash cycle. Additionally, textiles with strong odors, such as smoke-damaged fabrics, may require pre-treatment or separate processing. These items are treated with odor-absorbing agents (see page 224), which neutralize odor molecules by binding to them.

Fabric Structure

Fabric composition, including cotton, polyester, wool, and the type of weave or knit, determines the appropriate care method. Specific characteristics, such as plastic coatings, leather applications, nitrile rubber, latex, beads, sequins, or buttons, must also be considered. Some bonding methods, such as adhesive applications, are cost-effective but less durable than sewn connections. Many adhesives dissolve in water or solvents, making elements like sequins and flock prints (see page 97) vulnerable to solvent-based cleaning. Light and heavy textiles are processed separately to prevent damage to delicate items [2](#). Additionally, lint-shedding materials should be separated from lint-absorbing fabrics to maintain fabric integrity [3](#).

Fabric Treatment

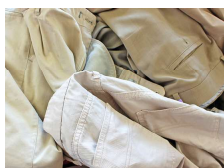
Many textiles receive special treatments during professional care, such as starch coatings, surface treatments, or water-repellent finishes [4](#). When sorting, these treatments must be considered to ensure the correct cleaning method is applied.

Economic Considerations

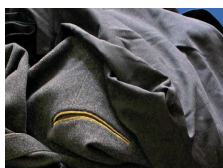
In cleaning processes, drying is an integral part of the technology process. The challenge lies in drying thick, bulky items effectively without over-drying thinner fabrics [2](#).

The drying process after washing must also be considered when sorting fabrics. For example, cotton fabrics can be completely dried in a tumble dryer, while items requiring ironing should only be loosened and brought to optimal moisture levels for the next ironing process. While both types of fabrics can be easily washed together, extra effort is needed to sort them for the subsequent drying step.

The larger the facility, the more important sorting becomes in order to meet the requirements of the finishing departments in the washing, cleaning, and drying processes. With proper sorting, there will be no need for time-consuming re-sorting after washing or cleaning. Therefore, from the moment the batch is created, depending on the type of product being processed, groups of items can be formed that can immediately continue processing [5](#). An example is bed linens, where sheets and pillowcases can be sorted for the large pressing process, while pillowcases are sorted for the small pressing process. Other examples include: cotton items for the small pressing machine, shaped products for the tunnel finisher, shirts for the shirt press, trousers for the trouser hanger station, and curtains for the curtain press or steamer. Another helpful tool for efficient processing is sorting into batches or orders. Here, a batch from a delivery or 45 residents of a nursing home can be grouped and moved through various stations in the facility as seamlessly as possible. This helps to easily aggregate batches after processing, significantly reducing the time required.



1 Light-colored fabric batch



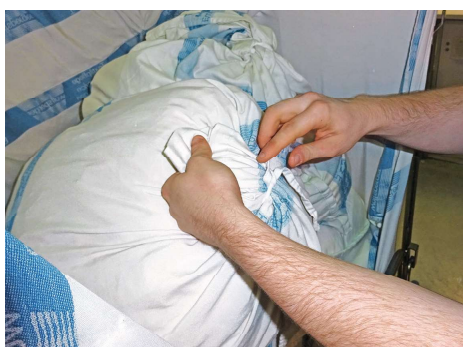
2 Dark-colored fabric batch



3 Contrasting wool sweater



4 Laundry collection system for pre-sorting



5 Opening the package



6 Suspected infectious fabric from hospitals

Color

In professional fabric care, fabrics are also classified by color. The more complex the washing or cleaning process and the more sensitive the fabric types are, the more important color classification becomes. Light and dark fabrics are handled separately. The main goal is to protect light-colored fabrics from dye particles from dark-colored fabrics. Although there have been many advances in washing and cleaning chemistry, such as through the use of dye inhibitors, this principle remains central. Fabrics made from cellulose fibers, depending on the type of dye used, are particularly prone to fading and absorbing color. The fiber material swells when exposed to moisture, and in the swollen state, it can easily release or absorb dye particles. Experience shows that red fabrics often release dye particles, so they are typically classified with dark-colored fabrics.

Classification is usually done into groups of light, medium, and dark-colored fabrics. In cases of small quantities, fabrics may only be divided into two groups: light-colored fabrics 1 and dark-colored fabrics 2.

When handling contrasting colors 3, products are classified according to the lighter color to ensure the light color does not fade or darken. Of course, care must be taken to ensure the dark color is not affected during the process. In case of doubt, a test should be performed at the fabric edge. Colored fabrics should only be left damp for a short period. There is always the risk of color transfer, i.e., the unwanted release of dye particles onto other fabrics.

Fabrics dyed with Naphthol dyes (see page 92) have good wet fastness and are also durable in industrial washing processes. However, they are not resistant to PER solvents. Fabrics that are printed or dyed with pigment dyes must be tested for cleaning fastness by testing at the fabric edge before being treated with the respective solvent. This test is done by gently rubbing a piece of white cotton fabric, soaked in solvent, on an inconspicuous area of the fabric. If the cotton piece becomes stained, it means the fabric is not sufficiently fast. For PER solvents, they should not be used directly and can be replaced with paint remover or oil solvents.

Hygiene Requirements

The most important criterion to consider before starting the laundry sorting process 4 is the hygiene condition of the laundry, which depends on microbial contamination. This is crucial to protect the staff. In addition, laundry that has not been sterilized can transmit diseases. In Germany, the following regulations apply. Current regulations should be consulted with the relevant authorities. For hygiene requirements, the Law on Infection Protection (IfSG) must be followed. This mandates that dirty laundry be divided into four categories: highly infectious fabric, infectious fabric, suspected infectious fabric 6, and normal fabric that is not considered infectious or suspected of being infectious.

In Germany, there are regulations prohibiting the sorting of highly infectious fabrics (which should not be laundered but must be immediately incinerated), infectious fabrics, and suspected infectious fabrics. This means that these fabrics are not allowed to be sorted in laundries or dry cleaning establishments. For other fabrics, there are no sorting prohibitions. However, occupational safety regulations from the professional association must be adhered to.

Suspected infectious fabrics mainly include all types of fabrics from hospitals or outpatient surgical centers. In most cases, these fabrics have already been sorted at the hospital by staff according to a predetermined plan. Specially marked fabric bags (roll bags) are available in the sorting stations for this purpose. At the laundry, the roll bags are simply opened 5, and the fabric is immediately processed in the disinfection wash. Sorting of these fabrics is not performed. Thanks to the rotational motion of the washing drum and the fabric collection ridges, the roll bag is completely emptied after about a minute.

There are a few laundries in Germany that have established the necessary conditions regarding personnel, technology, and organization for sorting suspected infectious fabrics. In the technical field, a ventilated air-conditioning system is required to create a slight steam pressure in the soiled fabric area and to suck in contaminated air with viruses, bacteria, and dust from the sorting areas. This system must be regularly tested and inspected by an external party. Additionally, the risk of contamination by pests and fabric-damaging pests also plays a critical role in selecting appropriate methods (see pages 173 and 174).

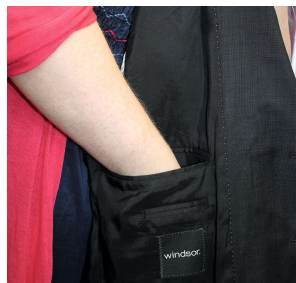
9.3 Product Preparation

9.3.1 Fabric Preparation

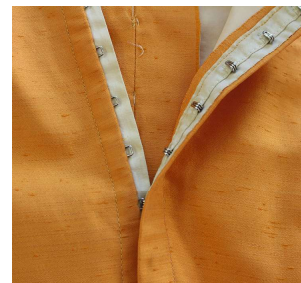
In many cases, sorting locations involve tasks broader than mere sorting. One important point to note is to avoid interactions between different types of fabrics within the same batch. Twisting cravat strings and ribbons together, as well as causing damage through knots, should be avoided.

Consec. Nr.	Date	Term	Description of the damage	Damage detected in the presence of the customer	Signature/
52	11.03	10/212	Pants, black	right back pocket torn	Yes First person H. Smith No Second person
53	11.03	50/3322	Tablecloth, white	red discolored	Yes First person H. Smith No Second person
54	11.03	37/2072	Shirt, blue poid	left shoulder torn	Yes First person H. Smith No Second person

1 Damage logbook



2 Pocket inspection



3 Closing pin

Damage Logbook

Initial damage to goods belongs to the customer and should be discussed and recorded with them. In case of doubt, returning the untreated items is the top priority. Damage can be recorded in a dedicated damage logbook for documentation 1.

Pocket Inspection

The purpose of pocket inspection is mainly to detect and remove foreign objects that could harm the clothes 2. For example, an undetected ballpoint pen can cause significant damage, as ink that is difficult or impossible to remove may spread to multiple parts of a laundry load.

Zippers

Zippers should be fully closed when this does not interfere with the drying process. In particular, small zippers, commonly used in women's clothing, are very sensitive to mechanical impact.

Velcro

Velcro fasteners should be closed, or the hook strip should be covered with a partner. Open Velcro fasteners can cause significant damage to velvet fabrics.

Button Protection

Buttons made of pearl or metal need to be protected to avoid hitting the drum of the machine, which could cause scratches or peeling. This can be done by turning the fabric inside out. Other button protection methods include using Velcro 4, plastic button frames, or aluminum

foil. Aluminum foil is especially suitable for leather buttons and mixed material buttons. It prevents solvents or water from penetrating the button, helping to avoid color fading of the leather or dissolving of glue.

Badges

Buttons and badges 3 should also be fastened. If they are prone to opening during washing, they should be handled in a thick mesh bag or a small fabric bag.

Curtain Sliders, Curtain Rings

To ensure that curtain rings do not damage the fabric or fall through the machine's gaps, they should be removed before processing and then reattached. Some types of curtains allow the rings to remain, making this task unnecessary.

Ties

Ties, bows, and sashes are delicate items that should only be handled in a laundry bag. There are special bags for ties that provide maximum protection for the item.

Cords and Loops

For cords, belts, loops, and other small accessories, ensure they do not get lost. Cords may be damaged by twisting or knotting. The cords of aprons should be tied before processing to avoid rolling. Additionally, using a mesh bag for these items is recommended.



4 Button protection



5 Tie in a mesh bag