

## **CARE LABELING OF TEXTILE APPARELS**

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*Textiles and clothing should fulfill the functional comfort, aesthetic safety and ecological requirements. Textiles are soiled during their normal use. Hence, these are to be cleaned and refurbished for reuse without substantially altering their serviceability characteristics. Textile care includes the wet washing dry cleaning, drying, ironing and bleaching . Wherever necessary. Textile care industry in this connotation includes washer man, laundry, professional cleaning establishments and last but not the least domestic washing by consumers. The Federal Trade Commission (FTC) of USA promulgated a trade regulation on the care labeling of textile and certain goods in 1971 and amended it in 1983.*

**Key words:** *Apparels, Care label.*

### **INTRODUCTION**

Textiles and clothing should fulfill the functional, comfort, aesthetic safety and ecological requirements. These characteristics by and large defined the serviceability of the textile products. In addition social, psychological, physiological, physical, economic parameters play a vital role in the selection of textiles products, wearing and purchase decisions.

Textiles are soiled during their normal use. Hence, these are to be cleaned and refurbished for reuse without substantially altering their serviceability characteristics. Textile consumers have the option to clean and refurbish the textile items at home termed as home laundering or get it done in professional cleaning establishment popularly known as commercial laundries. It is essential that available cleaning processes maintained or restored the desirable and functional attribute of the textiles. It is therefore imperative that the textile/clothing manufacturers, textile cleaning establishments - textile care

industries and the consumers jointly address the issues for the optimum serviceability of textile items.

Textile care includes the wet washing, dry cleaning, during ironing and bleaching wherever necessary. Textile care industry in this connotation includes washer man, laundry, professional cleaning establishments and last but not the least domestic washing by consumers.

The Federal Trade Commission (FTC) of USA promulgated a trade regulation on the care labeling of textile and certain goods in 1971 and amended it in 1983. According to this rule the clothing items should have a permanent care label that provides written information about their regular care. The aim of this rule is to give the consumer accurate care information to extend the useful life of a garment.

The formation of the north American free trade agreement (NAFTA) between the US, Canada and Mexico provided the stimulus form using care symbols instead

of words. Sequel to this, the American Society for Testing and Materials (ASTM) has developed laundering and dry cleansing symbols, which are being implemented by FTC. This effort is to harmonize the care label symbols in the above countries. International Organization for Standards (ISO) has developed an International Standard ISO-3758: 1991(E) for Textiles-Care labeling code using symbols. However, this standard is under active consideration for revision. In the present paper an overview of textile care; care labeling and regulatory scenario across the globe are discussed.

### **WHAT IS TEXTILE CARE?**

At the Hamilton Environmental Summit in 1993, textile cleaning was defined as a generic process. This re-definition dispels the paradigm that dry cleaning means cleaning in perchloroethylene (PERC) only. To initiate textile cleaning, it requires breaking the soil-textile interaction forces to loosen and transport the heterogeneous soils away from

textiles either in liquid, gas or even a solid medium. However, the material in solid, liquid or gaseous form should be recyclable. Further, the soils should be concentrated for proper disposal as a non hazardous waste. More importantly the process must clean cloth to satisfy the consumer need, and it must be economically feasible and environmentally acceptable. There are two boundary technologies namely non-aqueous and aqueous cleaning.

- Non-aqueous textile cleaning (dry-cleaning) is dictated by the properties of textiles and soils but the medium does not have to be perchloroethylene only. It is known that PERC is a proven medium for professional textile cleaning. Any other non polar media such as petroleum, carbon dioxide are other non polar liquids which meets the textile cleaning performance requirements could be chosen.
- Dry-clean means a commercial process by which soil is removed from products or specimens in a machine which uses common organic solvent (e.g. petroleum, perchloroethylene, fluorocarbon). The process may also include adding moisture to the solvent, up to 75% relative humidity, hot tumble drying up to 160°F (71°C) and restoration by steam press or steam-air finishing.
- Aqueous textile cleaning is an advance professional wet cleaning technology that can be used to clean textiles, which are traditionally cleaned in non-aqueous media. This technology has advantages to consumers in achieving better results than wet cleaning at home.
- Machine Wash means a process by which soil is removed from products in a

specially designed machine using water, detergent or soap and agitation. When no temperature is given, e.g., "warm" or "cold", hot water up to 150°F (68°C) can be regularly used.

- **Cleaning Mechanism** Colloid chemistry in non-aqueous and aqueous media allows satisfactory textile cleaning. We know that polar soils are more easily removed in water than in non-polar solvents and that non-polar soils are more easily removed in non-aqueous solvents.
- **Textile Care Process - Textile Properties** The structure and properties of fibres, yarns, fabrics, and colorants ultimately determine which cleaning process is best for them. Consumers/Cleaners cannot change textile properties, but they must know as much as possible about them in order to choose the best textile cleaning process. The spectrum of textile properties dictates which cleaning process technology (non-aqueous or aqueous) is best to maintain desirable textile attributes.
- **Textile Care Process - Preferred Methods for Garments** Based on field studies, preferred methods for cleaning specific garments have been established. Tailored or structured garments and high fashion items often have linings, interfacing, trims, and other accessories or have complex design features. They often behave differently in the same cleaning medium. Damage to these items is less likely to occur in non-aqueous media than in aqueous cleaning media. Thus, these garments are best cleaned in a non-aqueous media. Many garments, such as overcoats,

trousers, raincoats, or sweaters may be cleaned in ether media. Shirts, blankets, sleeping bags, and linens are best wet-cleaned.

- **Textile Care Process - Garment Damage Potential** A deviation from care label instructions increases the risk of garment failure. The potential damage to garments during cleaning is generally higher with aqueous media than with non-aqueous media. This fact is the major reason why dry cleaning is extensively utilized. Often, manufacturers label their garments as "Dry Clean Only" to reduce garment damage and to ensure customer satisfaction during the use of their products.
- **Shrinkage Potential** - When garments shrink more than 2 or 3 per cent, the garments do not fit well anymore and consumers will notice it. Shrinkage can occur during the cleaning, drying, or finishing process. The new wet cleaning technology optimizes and controls the well-known process parameters to reduce shrinkage: time, mechanical action, heat, and chemistry. There are two types of shrinkage viz. felting shrinkage and relaxation shrinkage.
  - (a) **Felting Shrinkage** - This type of shrinkage is unique to wool because wool fibres have surface scales that cause differential friction effects. When wool fibres swell, as they do in water, the scales expand and are lifted. This increases differential friction between fibres and interlocks and compacts them, which causes felting shrinkage. It is possible to reduce but not eliminate the felting potential of wool with process additives that lower inter-fibre friction and reduce fibre swelling.

(b) **Relaxation Shrinkage** - During fabric and garment manufacturing, textiles are often stretched, shaped, and under tension. This causes latent stresses at the macroscopic level (between fibres and yarns) and at the microscopic level (within the fibre morphology). The macroscopic stresses are generally relaxed by mechanical action that allows movement between fibres and yarns. Microscopic stress is released by Plasticization. Plasticization occurs when fibres swell in a liquid medium or when excessive energy (heat) is applied during drying. Ether action lowers the cohesive energy between amorphous polymer segments and causes relaxation within the fibre matrix, leading to shrinkage.

- **Appearance and Tactile Changes** – Consumers purchase new textiles based on visual and tactile perception. Cleaning experts strive to retain or restore the physical properties that cause the desirable sensory attributes of textiles triggering positive purchasing decisions. This means to retain the original colours, textures, and finishes during cleaning, or to restore them if undesirable changes have occurred. Again, it is easier to retain these properties during non-aqueous cleaning than during aqueous cleaning. The real issue is proper dyeing and colourfastness evaluation during textile manufacturing. Textile and apparel manufacturers, retailers, and textile care specialists must therefore work together to establish quality and test protocols that predict satisfactory cleaning

performance of textiles. Most dry cleaners use fabric finishes to restore or improve the hand and feel of dry-cleaned fabrics. Fabric finishes for aqueous cleaning are also available to achieve the same desirable effects.

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#### WHAT IS CARE-LABELING?

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To assist consumers in getting information about clothing care, the Federal Trade Commission in 1971 issued the Care Labeling Rule. This Rule requires manufacturers and importers to attach care instruction to garment. A revised version of this Rule became effective on January 2, 1984. The revisions to the Rule were based on information gathered by the Commission through public hearings and written comments. Data revealed that while consumers found care labels to be useful, they also believed labels were often incomplete, inaccurate, and inconsistent.

- Care label means a permanent label or tag, containing regular care information and instructions, that is attached or affixed in such a manner that it will not be separated from the products and will remain legible during the useful life of the product.
- Care label is given in words or in symbols. However, the symbols should give the consumer adequate information to take care of the cleaning and other related operations.

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#### CARE SYMBOL LABELING

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- American Textile Manufacturers Institute (ATMI) participates in the activities and development of care symbols in the American Society for Testing and Materials (ASTM) D-13.62.
- ATMI also participates in International Organization for Standardization (ISO) Technical Committee (TC) 38/SC 11 Care

Symbols. The USA TAG Administrator for ISO TC 38/SC 11 is American Textile Manufacturers Institute.

- Since July 1, 1997, the Federal Trade Commission allows the optional use of care symbols to convey garment and textile care instructions to the consumer. The standard being used is ASTM D-5489 Standard Guide for Care Symbols for Care Instructions Textile.

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#### CARE LABEL SYMBOLS

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##### GINETEX

Textile care labeling symbols are managed by GINETEX – International Association for Textile Care Labeling. The professionals of the textile-garment-care chain established GINETEX in 1963 and its head-office is in Paris, France. The GINETEX care symbols are registered with the WIPO - World Intellectual Property Organization in Geneva, Switzerland as international trademarks. To this end, care symbols must be used in respect of the use regulations of the trademarks together with the technical information on which they are based. This will help in the correct use of the symbols by the professionals.

GINETEX has the following objectives

- To define symbols for textile care at an international level,
- To define the regulations for the use of the said symbols,
- To promote the propagation of the care symbols,
- To acquire all markings and all rights relative to the symbols,
- To register all marks, both national and international,
- To insure protection for all marks and symbols as adopted in all the member countries of the Association,



Washing



Bleaching



Ironing



Dry-cleaning



Drying

Symbol	Washing Process
	<ul style="list-style-type: none"> <li>• maximum temperature 95°C</li> <li>• mechanical action normal</li> <li>• rinsing normal</li> <li>• spinning normal</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 95°C</li> <li>• mechanical action reduced</li> <li>• rinsing at gradually decreasing temperature (cool down)</li> <li>• spinning reduced</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 70°C</li> <li>• mechanical action normal</li> <li>• rinsing normal</li> <li>• spinning normal</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 60°C</li> <li>• mechanical action normal</li> <li>• rinsing normal</li> <li>• spinning normal</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 60°C</li> <li>• mechanical action reduced</li> <li>• rinsing at gradually decreasing temperature (cool down)</li> <li>• spinning reduced</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 50°C</li> <li>• mechanical action reduced</li> <li>• rinsing at gradually decreasing temperature (cool down)</li> <li>• spinning reduced</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 40°C</li> <li>• mechanical action normal</li> <li>• rinsing normal</li> <li>• spinning normal</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 40°C</li> <li>• mechanical action reduced</li> <li>• rinsing at gradually decreasing temperature (cool down)</li> <li>• spinning reduced</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 40°C</li> <li>• mechanical action much reduced</li> <li>• rinsing normal</li> <li>• spinning normal</li> <li>• do not wring by hand</li> </ul>
	<ul style="list-style-type: none"> <li>• maximum temperature 30°C</li> <li>• mechanical action much reduced</li> <li>• rinsing normal</li> <li>• spinning reduced</li> </ul>
	<ul style="list-style-type: none"> <li>• hand wash only</li> <li>• do not machine wash</li> <li>• maximum temperature 40°C</li> <li>• handle with care</li> </ul>
	<ul style="list-style-type: none"> <li>• do not wash</li> <li>• be cautious when treating in wet stage</li> </ul>

\* Note: The symbols most popularly used in the U.K.

Symbol	Bleaching Process
	<ul style="list-style-type: none"> <li>• chlorine-based bleaching allowed</li> <li>• only cold and dilute solution</li> </ul>
	<ul style="list-style-type: none"> <li>• do not use chlorine-based bleach</li> </ul>

Symbol	Ironing Process
	<ul style="list-style-type: none"> <li>• iron at a maximum sole-plate temperature of 200°C</li> </ul>
	<ul style="list-style-type: none"> <li>• iron at a maximum sole-plate temperature of 150°C</li> </ul>
	<ul style="list-style-type: none"> <li>• iron at a maximum sole-plate temperature of 110°C</li> <li>• steam-ironing may be risky</li> </ul>
	<ul style="list-style-type: none"> <li>• do not iron</li> <li>• steaming and steam treatments are not allowed</li> </ul>

Symbol	Dry-cleaning Process
	<ul style="list-style-type: none"> <li>• drycleaning in all solvents normally used for drycleaning - this includes all solvents listed for the symbol P, plus trichloroethylene and 1,1,1 trichloroethane</li> </ul>
	<ul style="list-style-type: none"> <li>• drycleaning in tetrachloroethylene, monofluorotrichloromethane and all solvents listed for the symbol F</li> <li>• normal cleansing procedures without restrictions</li> </ul>
	<ul style="list-style-type: none"> <li>• drycleaning in the solvents listed in the previous paragraph</li> <li>• strict limitations on the addition of water and/or mechanical action and/or temperature during cleaning and/or drying</li> <li>• no self-service cleaning allowed</li> </ul>
	<ul style="list-style-type: none"> <li>• drycleaning in trifluorotrichloroethane, white spirit (distillation temperature between 150°C and 210°C, flash point 38°C to 60°C)</li> <li>• normal cleansing procedures without restrictions</li> </ul>
	<ul style="list-style-type: none"> <li>• drycleaning in the solvents listed in the previous paragraph</li> <li>• strict limitations on the addition of water and/or mechanical action and/or temperature during cleaning and/or drying</li> <li>• no self-service cleaning allowed</li> </ul>
	<ul style="list-style-type: none"> <li>• do not dryclean</li> <li>• no stain removal with solvents</li> </ul>

Symbol	Drying Process
	<ul style="list-style-type: none"> <li>• tumble drying possible</li> <li>• normal drying cycle</li> </ul>
	<ul style="list-style-type: none"> <li>• tumble drying possible</li> <li>• drying at lower temperature setting</li> </ul>
	<ul style="list-style-type: none"> <li>• do not tumble dry</li> </ul>

- To conclude all agreements liable to the promotion of the abovementioned objectives,
- In general, to take all measures and carry out all actions in order to promote the above objectives, either directly or indirectly.

The GINETEX care labeling system

**ASTM Symbol System - Basic Symbols**

American Textile Manufacturers Institute (ATMI) participates in the activities and development of care symbols in the American Society for Testing and Materials (ASTM) D-13.62. The symbols developed by ASTM are currently used in USA.



CONSUMER GUIDE TO CARE SYMBOLS											
 Wash	<b>Machine wash cycles</b> normal                         permanent press                         delicate / gentle                         hand wash	<b>Water temperatures (maximum)</b> <table border="1"> <tr> <td>(100F)</td> <td>(120F)</td> <td>(160F)</td> <td>(50F-45F)</td> </tr> <tr> <td>●●●</td> <td>●●●</td> <td>●●</td> <td>●</td> </tr> </table>	(100F)	(120F)	(160F)	(50F-45F)	●●●	●●●	●●	●	<b>Warning symbols for laundering</b> do not wash do not bleach do not dry (used with do not wash) do not iron
	(100F)		(120F)	(160F)	(50F-45F)						
●●●	●●●	●●	●								
<b>Bleach</b> any bleach when needed                         only non-chlorine bleach when needed	<b>Additional instructions (in symbols or words)</b> do not wring do not tumble dry in the shade (added to line dry, drip dry, or dry flat) no steam (added to iron)										
 Dry	<b>Tumble dry cycles</b> normal                         permanent press                         delicate / gentle                         line dry / hang to dry drip dry dry flat	<b>Tumble dry heat setting</b> any heat                         high                         medium                         low                         no heat / air	<b>Warning symbol</b> do not dryclean								
	<b>Iron—dry or steam</b> maximum temperature                         300 C (500 F) high                         150 C (300 F) medium                         110 C (230 F) low	<b>Dryclean</b> normal cycle any solvent <b>Professionally dryclean</b> —requires modified drycleaning reduce moisture                         short cycle                        no steam finishing                         any solvent except trichloroethylene                        low heat                         petroleum solvent only									

Note: This figure illustrates the symbols used for laundering and drycleaning instructions. As a minimum, laundering instructions include, in order, four symbols: washing, bleaching, drying, and ironing; and, drycleaning instructions include one symbol. Additional symbols or words may be used to clarify the instruction.

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 ASTM Designation: D 5489 PCN: 12-45489-1B

Since July 1, 1997, US manufacturers are using ASTM-developed care symbols in place of written instructions on permanent labels inside of garments. FTC does not believe the system of symbols set up by the International Standards Organization (ISO) and known as GINETEX is as comprehensive as those developed by the ASTM. Efforts to harmonize the ASTM and ISO care symbol systems are being continued.

This based on the following principles

- The uniform use of the symbols is basically carried out in the interest of the consumer,
- The symbols were introduced in order to avoid any misinterpretation by the consumer,
- The GINETEX symbols are simple enough to be understood in all countries, irrespective of the language spoken by the users, yet providing as much information as possible on the appropriate care treatments for textile articles,
- In order to prevent irreversible damage, the professionals are responsible for the choice of care-treatment in their articles,
- The GINETEX care symbols cannot be used separately and shall refer to all treatments in the order: washing bleaching, ironing, dry-cleaning and tumble drying,
- The symbols of the actual care labeling code shall be adapted whenever necessary to technical and economical evolutions but the changes must be limited to essential ones in order not to create confusion for the consumer.

A correct care label for different countries is now required to consist of four and sometimes five symbols in the following sequence: washing, bleaching, ironing, dry-cleaning and drying. ISO has accepted GINETEX symbols for administering the international standards as a part of harmonization of standards.

### **WHY SHOULD WE USE CARE SYMBOLS INSTEAD OF WORDS?**

- **For consumers** Symbols provide the same information

to everyone without language barriers. Using symbols allows, for smaller, more comfortable care labels. Smaller labels also cost less and this could translate consumer savings. The symbols are easy to understand with just five basic symbols. Dots add temperature to the procedure, underlining (or minus signs) reduce appliance action.

- **For manufacturers** When harmonized with other countries, symbols will allow participation in a global marketplace where symbols will clearly communicate the same information in all countries. Smaller labels cost less to buy or manufacture and also cost less to inventory. Eliminating the need for different labels for different countries further reduces total inventory. The ASTM care symbols are free of trademark and user fees. The ASTM symbol system is unique in that it includes a symbol for "Non-chorine Bleach", eliminating the need for this most common requirement.

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### **TYPES OF CARE LABEL**

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#### **Permanent Labels**

A permanent label is a label of such material and attached in such manner that it can be expected to withstand and remain legible throughout at least ten cleanings of the article. The following list details examples of those articles classified in the Regulations as requiring permanent labels.

The permanent-type label comes with a special adhesive backing; and when applied to a surface such as the flange of a magnetic tape, it adheres permanently. That is not to say this type of label cannot be removed, but to remove it takes a considerable amount of effort.

Normally, you would consider using this type of label only if it were to remain on the media throughout its life cycle, as is the case with the identification number or certification labels.

- Jackets.
- Coats, overcoats, topcoats, capes and ponchos.
- Pants, slacks and shorts.
- Suits.
- Overalls and work clothing.
- Shirts and blouses.
- Sweaters.
- Skirts and kilts.
- Sports clothing.
- Dresses, jumpers, and jumpsuits.
- Dusters, house coats, bathrobes, dressing gowns and smocks.
- Children's clothing including play clothing, overalls, snow suits, etc.
- Towels.
- Bedspreads, blankets, quilts and comforters.
- Sheets, pillows and pillowcases.
- Slip covers, Afghans, throws and other covers for furniture, appliances and automobile seats.
- Draperies, drapery liners and curtains.
- Sleeping bags.
- Tents and fly.

When a permanent label is attached to an article so as to leave both sides easily accessible, the label may have part of the required information on one side and the remainder on the other. The information may also be placed on two different labels provided that the labels are adjoining or contiguous

## Non-Permanent Labels

A non-permanent label is a label, which is not expected to withstand and remain legible through ten cleanings of the consumer textile article. The following list details examples of those articles classified in the Regulations as eligible for a non-permanent label.

The non-permanent type label has a special adhesive backing of stick-on-type construction that can be applied to just about any kind of surface yet be removed with very little effort. This type of label is most useful in applications where information regarding the media itself, or what is written upon it, changes quite frequently. Usage labels, cleaning labels, and save labels are usually nonpermanent type labels.

- Undergarments, lingerie, sleepwear and swimwear.
- Scarves, shawls, mufflers and handkerchiefs.
- Stretch tights (leotards), hosiery and panty hose.
- Gloves, mittens and gaiters.
- Wigs, toupees, switches and other hairpieces.
- Headwear.
- Aprons and bibs.
- Diapers.
- Neckties, bow ties, and detachable collars and cuffs.
- Umbrellas and parasols.
- Cordage and ropes.
- Batting, wadding and padding.
- Yarns, sewing and embroidery threads.
- Piece goods and narrow fabrics.
- Tablecloths, silicone cloths, napkins, doilies, dresser and furniture scarves, runners and antimacassars.

- Dish cloths, dishtowels and washcloths.
- Covers and pads for ironing boards and sleeve boards.
- Covers for bathroom fixtures.
- Outer coverings of upholstered furniture, mattresses, box springs, cushions, chair pads, oven mitts, pot holders, placemats and mattresses and pillow protectors.
- Carpets, carpeting, rugs and carpet tiles.
- Bed canopies.

Articles from this list can be labeled with a non-permanent label such as a hangtag, a wrapper, or a sticker. Alternatively, if the dealer desires, a permanent label may be used.

## Flammability labels

Each year many burn injuries and deaths occur because clothing catches fire. If clothing ignites, the burn injury is often severe, resulting in permanent scarring. The Consumer Product Safety Commission administers the Flammable Fabrics Act and other rules that are aimed at keeping the most dangerously flammable fabrics off the consumer market. However, most household and apparel fabrics will burn when in contact with a flame or heat source.

*Children's sleepwear, mattress pads, carpets and rugs sold in the United States are usually labeled "Flame resistant." They are required by law to meet special flammability standards.*

Flame resistant fabrics are not flameproof. Under certain conditions, they will still burn, but generally they ignite with difficulty, burn slowly and self-extinguish when the source of heat and flame is removed. Manufacturers must include special instructions for care necessary to preserve flame-resistant properties.

## Labels for piece goods

Manufacturers and importers of piece goods fabrics (yard goods) are required to provide consumer information clearly and conspicuously on the end of each bolt or roll of fabric. Care instructions must follow the rules previously stated. Manufacturers are no longer required to provide fabric retailers with care labels to give to consumers to sew into the clothes they make, although many have labels available and will provide them to consumers who ask for them. Yard goods intended for children's sleepwear will also be labeled on the fabrics bolt end with a statement such as "Flame resistant, safe for children's sleepwear." Often cotton flannelettes and other fabrics of similar weight and textures that are not treated for flame resistance will be labeled "Not suitable for children's sleepwear."

## Labels about dimensional stability

Some fabrics shrink or stretch out of shape during use and care. A few terms may appear on the label to help inform consumers about the dimensional stability of a textile product.

- **Preshrunk** means some shrinking procedure has been followed but does not indicate how much more the textile product will shrink during use and care.
- **3 Percent Shrinkage** means that the item may shrink as much as one inch per yard of fabric, resulting in the loss of almost one garment size.
- **Prewashed** is sometimes used on denim to indicate a softer fabric with some colour fading. The garment is less likely to shrink when washed.

- **Sanforized™**. Sanfor-Knit™, and Sanfor-Set™ are trademarks owned by Cluett, Peabody & Co. Sanforized™ signifies that the woven cotton or cotton blend fabric has been tested and conforms to a precise standard of effective shrinkage control. Sanfor-Knit™ signifies high standards of shrinkage control and easy-care performance in 100 percent cotton and cotton-blend knit fabrics and garments. Sanfor-Set™ signifies that the woven cotton or cotton-blend fabric conforms to precise standard of shrinkage control and easy-care performance.

#### Product specific labeling

A mandatory standard relating to care labeling of clothing and other textile products has been introduced in South Australia to ensure that all items are clearly marked with care instructions. The information standard provides a list of the types of goods exempt from the requirement, such as second-hand goods. Products covered by the mandatory requirements include clothing, household textiles, apparel, some furnishings, upholstered furniture, bedding, mattresses, bed bases, piece goods and yarns made from textiles, plastics, plastic coated fabrics, suede skins, hides, grain leathers and/or furs. In general, the mandatory standard requires that care instructions be

- Permanently attached to articles;
- Written in English;
- Legible;
- Appropriate and adequate for the care of the article; and
- Accessible to the consumer at point-of-sale.

Where care instructions are not visible at the point-of-sale because

of packaging, folding or display, additional labeling is required. The same care instructions that appear on the article must be provided in one of the following ways

- On the outer packaging;
- On a removable label or ticket attached to the article; or

#### Other common additional label terms

There are several other terms that may appear on labels. While they are not required, they do have specific meanings.

- **Carded:** Shorter, thicker cotton fibres provide a soft, durable fabric
- **Combed cotton** is a fabric that is smooth, lustrous and strong because the fibres are long and straightened so that they lie parallel to each other.
- **Double needle stitching** means that the seams are closed with two parallel lines of stitching for extra strength.
- **Madras cotton** is a soft plaid fabric made in India with yarns dyed with natural vegetable colours. These dyes usually fade or "bleed" in laundry, giving a blended colour effect.
- **Permanent or durable press** fabrics have been given a special chemical treatment to make them more wrinkle-resistant. They usually do not require ironing when properly laundered.
- **Pima** is an especially good quality natural cotton fibre that is longer, more lustrous, smooth and usually more expensive.
- **Pure** is a term used to describe any fabric that is not a blend, e.g., "pure cotton" is another way of saying "100 percent cotton".

- **Ramie** is a cellulosic fibre grown in Asian countries. It is strong, lustrous and smooth. It wrinkles easily and is flammable.
- **Raw silk** is a rather stiff, crisp textured fabric that has not been boiled (degummed) to remove the natural gum extruded by the silkworm.
- **Textured yarn** is a fibre yarn that has increased bulk, warmth and elasticity because it has been heat set with crimp.
- **Thread count** gives the number of yarns per inch in each direction in the fabric. A higher thread count gives a stronger, smoother fabric.
- **Upland cotton:** the cotton plant variety most commonly grown in the U.S. that is valued for its fibre length, diameter, and uniformity.
- **Woolen:** fabric is thick and fuzzy because wool fibres in yarns are short and partially straightened.
- **Worsted:** fabric is smooth, lustrous, and strong because fibres in wool yarns are long, and combed to straighten.

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#### USE OF CARE SYMBOL

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- Care labels indicate how to clean textile articles in the best possible way.
- Care symbols give all the necessary information on washing, bleaching, ironing, dry-cleaning and tumble drying.
- Without this information, the consumer can hardly decide on the appropriate care treatment because it does not depend only on the main fabric, which composes the textile article. Indeed, all the components of the said textile article shall be taken into account: other fibres, accessories, but also dyeing, finishing treatments and textures.

- Care label provides the consumer with care information he/she does not have to decide on. Indeed, the consumer does not have experience and technical support to decide on care treatment.
- Observing information given with the symbols, the consumer will avoid wrong treatments and consequently premature wearing out. He/she will therefore obtain better results.
- Care labeling is determined under the responsibility of the garment maker in common interest of textile manufacturers, drycleaners and of course consumers.
- Symbols refer to maximum permissible treatments that a textile article can bear without irreversible damage. More severe treatments can always be applied.

Thus, care symbols are recommendations on how to clean a textile article on which they are affixed; they should not be considered as a use guaranty neither as a quality mark.

### How to use care labels

One should read the labels before buying textiles and garments. Use the labels to make informed choices. Follow care labels as wear and care items. Provide appropriate instructions to dry cleaners about stains and any precautionary statements on the labels so that they can serve better. Pay for the costs of labeling; it might as well get as much benefit as one can from it.

### How to read a label

The label gives variety of information and some of the useful tips to read the same are under.

Country	Language	Composition	Origin	Size	Care
<b>NORTH AMERICA</b>					
Canada	English and French	Mandatory	Mandatory	Optional	Optional
USA	English	Mandatory	Mandatory	Optional	Mandatory
<b>SOUTH AMERICA</b>					
Argentina	Spanish	Mandatory	Mandatory	Mandatory	Mandatory
Brazil	Portuguese	Mandatory		Mandatory	Mandatory
Chilie	Spanish	Mandatory		Mandatory	Mandatory
Colombia	Spanish	Mandatory	Mandatory	Mandatory	Mandatory
Mexico	Spanish	Mandatory		Mandatory	Mandatory
Venezuela	Spanish (Catalan)	Mandatory	Mandatory	Mandatory	Mandatory
<b>ASIA</b>					
China	Chinese	Mandatory	Mandatory	Mandatory	Mandatory
South Korea	Korean	Mandatory	Mandatory	Optional	Mandatory
Hong-Kong	English (optional)	Optional	Optional	Optional	Optional
<b>India</b>	<b>English and Hindi</b>	<b>Mandatory</b>	<b>Mandatory</b>	<b>Mandatory</b>	<b>Optional</b>
Indonesia	English (optional)	Optional	Optional	Optional	Optional
Japan	Japanese	Mandatory	Mandatory	Optional	Optional
Malaysia	Malaysian or English (optional)	Optional	Optional	Optional	Optional
Pakistan	English or All languages (optional)	Optional	Optional	Optional	Optional
Philippines	English	Mandatory	Mandatory	Optional	Mandatory
Singapore	English (optional)	Optional	Optional	Optional	Optional
Taiwan	Mandarin Chinese	Mandatory	Mandatory	Mandatory	Mandatory
Thailand	Thai or English (translated) into Thai)	Mandatory	Mandatory	Mandatory	Mandatory
Vietnam	Vietnamese	Mandatory	Optional	Optional	Mandatory for some products

<b>MEGHREB</b>					
<b>Country</b>	<b>Language</b>	<b>Composition</b>	<b>Origin</b>	<b>Size</b>	<b>Care</b>
Algeria	Arab	Mandatory	Mandatory	Optional	Mandatory
Morocco	Arab and French	Mandatory	Mandatory	Mandatory	Mandatory
Tunisia	Arab and French or English	Mandatory	Optional	Optional	Optional
<b>MIDDLE-EAST</b>					
Saudi Arabia	Arab or Arab +English	Mandatory	Mandatory	Mandatory	Mandatory
Barhain	Arab or English (optional)	Mandatory	Mandatory	Mandatory	Mandatory
United Arab Emirates	English (mandatory) or Arab (optional)	Optional	Mandatory	Mandatory	Optional
Egypt	English or Arab (optional)	Optional	Mandatory for fabric	Optional	Optional
Israel	Hebrew	Mandatory	Mandatory	Mandatory	Mandatory
Kuwait	English	Optional	Mandatory	Optional	Optional
Lebanon	Arab or French or English (optional)	Optional	Optional	Optional	Optional
Libya	All languages (optional)	Optional	Optional	Optional	Optional
<b>EASTERN EUROPE</b>					
<b>Country</b>	<b>Language</b>	<b>Composition</b>	<b>Origin</b>	<b>Size</b>	<b>Care</b>
Bulgaria	Bulgarian	Mandatory	Mandatory	Mandatory	Mandatory
Cyprus	Greek or other languages of the European Union (optional)	Mandatory	Optional	Optional	Mandatory
Estonia	Estonian	Mandatory	Mandatory	Mandatory	Mandatory
Hungary	Hungarian	Mandatory	Mandatory	Mandatory	Mandatory
Latvia	Latvian	Mandatory	Mandatory	Mandatory	Optional
Lithuania	Lithuanian	Mandatory	Mandatory	Mandatory	Mandatory
Malta	Maltese or English or Italian	Mandatory	Optional	Optional	Optional

## SIZE

Tells what size the garment is. May list a numeric size class such as Small (S), Medium (M), Large (L), X-Large (XL). There is no uniform standard for sizing in the U.S.



## WHERE IT'S MADE

"Made in USA" from imported fabric  
"Made in China," "Taiwan," etc.

## STYLE NUMBER

Identifies a particular style of garment in a manufacturer's line. Used to track sales, returns. (Not always shown.)

## TYPE OF FABRIC

In the U.S. the generic names of all fibres present in the amount of five percent or more of the total fibre weight must be provided on the label.

## RN NUMBER

A registered identification number (RN) is issued by the U.S. Federal Trade Commission to a business residing in the U.S. that is engaged in the manufacture, importing, distributing, or sale of textile, wool, or fur products. Such businesses are not required to have an RN. However, the RN can be used in place of a name on the label or tag that is required to be affixed to these products.

Country	Language	Composition	Origin	Size	Care
Poland	Polish	Mandatory	Mandatory	Mandatory	Mandatory
Czech	Czech Republic	Mandatory	Mandatory	Mandatory	Mandatory
Romania	Romanian or English or All languages (optional)	Mandatory	Mandatory	Optional	Mandatory
Slovakia	Slovak	Mandatory	Mandatory	Mandatory	Mandatory
Slovenia	Slovene	Mandatory	Mandatory	Mandatory	Mandatory
<b>OTHER COUNTRIES</b>					
Country	Language	Composition	Origin	Size	Care
South Africa	English	Mandatory	Optional	Optional	Mandatory
Australia	English	Mandatory	Mandatory	Mandatory	Mandatory
Norway	Norwegian	Mandatory	Optional	Optional	Mandatory
Russia	Russian	Mandatory	Mandatory	Mandatory	Mandatory
Switzerland	French or German	Optional	Optional	Optional	Optional
Turquie	Turkish	Mandatory	Mandatory	Optional	Mandatory

This information is an extract of the comprehensive study carried out by the Team of Expertise Textile, LA FEDERATION (French Textile Organization), has been validated end of 2003.



The RN number is helpful for consumers when trying to contact a manufacturer with a question, comment, or complaint.

**CARE INSTRUCTIONS**

The Care Labeling Rule requires clothing manufacturers and

importers to provide at least one satisfactory method of care necessary for the ordinary use of the garment. The label must also provide warnings against the use of any method, which the consumer can reasonably expect to use, that would harm the product. Note that fabrics on a bolt should have care instructions on the end of the bolt.

The laundry instructions are to provide instructions for, in order, washing, bleaching, drying, and ironing; and dry cleaning instructions are to include one symbol.

**UPDATE ON INTERNATIONAL TEXTILE CARE-LABELING REGULATIONS**

Care labeling standards developed by various national standard bodies are voluntary in nature. However,

country of origin and size of the garment are by and large mandatory. Following table gives an account of various countries requirements of labels.

**CONCLUSION**

- Textiles and clothing should fulfill the functional, comfort, aesthetic safety and ecological requirements. These characteristics by and large defined the serviceability of the textile products. In addition social, psychological, physiological, physical, economic parameters play a vital role in the selection of textiles products, wearing and purchase decisions.
- Textiles are soiled during their normal use. Hence, these are to be cleaned and refurbished for reuse without substantially altering their serviceability characteristics.
- Textile consumers have the option to clean and refurbish the textile items at home termed as home laundering or get it done in professional cleaning establishment popularly known as commercial laundries.
- Textile care includes the wet washing, dry cleaning, drying, ironing and bleaching wherever necessary. Textile care industry in this connotation includes washer man, laundry, professional cleaning establishments and last but not the least domestic washing by consumers. There are two types of cleaning viz. Non-aqueous and aqueous cleaning.
- Textile Care Process - Garment Damage Potential - A deviation from care label instructions increases the risk of garment failure. The potential damage

to garments during cleaning is generally higher with aqueous media than with non-aqueous media. This fact is the major reason why dry cleaning is extensively utilized. Often, manufacturers label their garments as "Dry Clean Only" to reduce garment damage and to ensure customer satisfaction during the use of their products.

- Care label means a permanent label or tag, containing regular care information and instructions, that is attached or affixed in such a manner that it will not be separated from the product and will remain legible during the useful life of the product.
- Care label is given either in words or in symbols. However, the symbols should give the consumer adequate information to take care of the cleaning and other related operations.
- Since July 1, 1997, the Federal Trade Commission allows the optional use of care symbols to convey garment and textile care instructions to the consumer. The standard being used is ASTM D-5489 Standard Guide for Care Symbols for Care Instructions Textile.
- Textile care labeling symbols are managed by GINETEX - International Association for Textile Care Labeling. The professionals of the textile-garment-care chain established GINETEX in 1963 and its head-office is in Paris, France. The GINETEX care symbols are registered with the WIPO-World Intellectual Property Organization- In Geneva, Switzerland as international trademarks.
- For consumers symbols provide the same information

to everyone without language barriers. Using symbols allows, for smaller, more comfortable care labels. Smaller labels also cost less and this could translate into consumer savings. The symbols are easy to understand with just five basic symbols. Dots add temperature to the procedure, underlining (or minus signs) reduce appliance action.

- For manufacturers when harmonized with other countries, symbols will allow participation in a global marketplace where symbols will clearly communicate the same information in all countries. Smaller labels cost less to buy or manufacture and also cost less to inventory. Eliminating the need for different labels for different countries further reduces total inventory. The ASTM care symbols are free of trademark and user fees. The ASTM symbol system is unique in that it includes a symbol for "Non-chlorine Bleach", eliminating the need for this most common requirement.
- Since July 1, 1997, US manufacturers are using ASTM-developed care symbols in place of written instructions on permanent labels inside of garments. FTC does not believe the system of symbols set up by the International Standards Organization (ISO) and known as GINETEX is as comprehensive as those developed by the ASTM. Efforts to harmonize the ASTM and ISO care symbol systems are being continued.
- Depending on the end use different type of care labels are enunciated. They are permanent labels, non-

permanent labels, flammability labels, labels for dimensional stability etc.

- Use of care label can give better serviceability of the textile product. A labels gives size, country of origin, style no., fabric composition, trade mark number and care instructions.
- Labels are by and large voluntary in nature. However, some of the countries like USA, China, have made it mandatory to safe guard the interest of consumers.
- Developing countries have to prepare to introduce care labels to suit to the prevailing textile care conditions.
- India has potential to contribute for development of its own care labeling scheme due to the upgradation of textile care system and increased awareness of textile consumerism.

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