



Designation: D5489 – 18

## Standard Guide for Care Symbols for Care Instructions on Textile Products<sup>1</sup>

This standard is issued under the fixed designation D5489; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This guide provides a uniform system of symbols for the disclosure of care instructions on textile products such as apparel, piece goods, and household and institutional articles, hereinafter referred to as “textile,” or “textile product.”

1.2 This guide provides a comprehensive system of symbols to represent care instructions reducing language-dependent care instructions.

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

D123 Terminology Relating to Textiles

D3136 Terminology Relating to Care Labeling for Apparel, Textile, Home Furnishing, and Leather Products

D3938 Guide for Determining or Confirming Care Instructions for Apparel and Other Textile Products

#### 2.2 ASTM Adjunct:<sup>3</sup>

Care Symbol Chart

#### 2.3 AATCC Standard:

A Glossary of AATCC Standard Terminology, Current Edition<sup>4</sup>

#### 2.4 Other Standards:

Federal Trade Commission Amendment to Trade Regulation Rule Concerning Care Labeling of Textile Wearing Apparel, and Certain Piece Goods, *Federal Register*, Vol 48, No. 99, May 20, 1983 (cited as 16 CFR 423).<sup>5</sup>

The National Standard of Canada—Care Labelling of Textiles (CAN/CGSB-86.1-M91)<sup>6</sup>

### 3. Terminology

3.1 *Definitions*—For definitions of terms related to care labeling, refer to Terminology D3136. For definitions of other textile terms used in this guide, refer to Terminology D123.

3.1.1 *care instructions, n—in textiles*, a series of directions that describe practices which should refurbish a product without adverse effects, and that warn against any part of the directions which one could reasonably be expected to use that may harm the item. **D3136**

3.1.2 *care label, n—in textiles*, a label or other affixed instruction set that reports how a product should be refurbished.

3.1.2.1 *Discussion*—The Federal Trade Commission, in Rule 16 CFR 423, requires care instructions on most apparel and certain other textile items. In relation to these products, the FTC definition states: “Care Label means a permanent label or tag, containing regular care information and instructions, that is attached or affixed in some manner that will not become separated from the product and will remain legible during the useful life of the product.” **D3136**

3.1.3 *care symbol, n*—a pictorial symbol that gives directions for refurbishing a consumer textile product.

<sup>1</sup> This guide is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.62 on Labeling.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

<sup>3</sup> Available from ASTM International Headquarters. Order Adjunct No. ADJD5489-E-PDF. Original adjunct produced in 1994.

<sup>4</sup> *Annual AATCC Technical Manual*, available from the American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Research Triangle Park, NC 27709-2215, <http://www.aatcc.org>.

<sup>5</sup> Available from U.S. Government Publishing Office, 732 N. Capitol Street, NW, Washington, DC 20401, <http://www.gpo.gov>.

<sup>6</sup> Available from Canadian General Standards Board (CGSB), 11 Laurier St., Phase III, Place du Portage, Gatineau, Quebec K1A 0S5, Canada, <http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb>.



## 4. Significance and Use

4.1 This guide provides symbols and a system for their use by which care instructions for textile products can be conveyed in a simple, space-saving, and easily understood pictorial format that is not language dependent. See also [ADJD5489-E-PDF](#). Currently, the FTC Care Labeling Rule recognizes Guide D5489-96c.

4.2 Care symbols are an important means for identifying the appropriate care procedure for home laundering, commercial laundering, professional textile care, and coin-operated drycleaning, of textile products.

4.3 Care labeling using symbols can be used by the purchaser to select textiles on the basis of the care method required without knowledge of the language. The FTC Care Labeling Rule specifies Guide D5489-96c symbols. Additional changes in words and symbols have been added to this guide which are not covered by 16 CFR 423. In the United States, when care symbols only are to be included in a care label, the FTC requires that the Guide D5489-96c version of symbols must be used. However, the symbols, as included in this standard version (Guide D5489-18), may be used if symbols are used in addition to full care instructions written in English wording.

4.4 In countries in which a word-based care labeling system is required, the care symbol system may be used as a supplemental system.

4.5 The word-based instructions for each symbol in this guide are harmonious with Terminology [D123](#), and Terminology [D3136](#), the United States Federal Trade Commission Care Labeling Rule, 16 CFR 423, and industry practice (see [Figs. 1 and 2](#)).

4.6 The care label symbol system is based on five basic care symbols representing five operations: washing, bleaching, drying, ironing, and professional textile care.

4.7 One color is used for all care symbols in this care labeling system.

NOTE 1—While this symbol system uses one color, it is harmonious with tri-color systems such as the Canadian system because the instructions are clear whether printed in one or three colors.

4.8 This guide does not specify the type of label material or fabric to use. However, appropriateness for consumer comfort is recommended.

## 5. Procedure

5.1 *Introduction*—This section defines the basic symbols and prohibitive symbols: the washing, bleaching, drying, ironing, and professional textile care processes; the required number and order of symbols; supplementary care information; and appropriate instructions and labels.

### 5.2 Basic Symbols:

5.2.1 There are five basic symbols: the washtub, triangle, square, iron, and circle.

5.2.2 The washtub represents the washing process, the triangle represents the bleaching process, the square represents

the drying process, the iron represents the ironing or pressing process, and the circle represents the professional textile care process ([Fig. 3](#)).

5.3 *Prohibitive Symbols*—The prohibitive “X” symbol may be used only when evidence can be provided that the care procedure on which it is superimposed would adversely change the dimensions, hand, appearance, or performance of the textile. ([Fig. 4](#)).

### 5.4 The Washing Process—The Washtub Symbol:

5.4.1 The washtub with a water wave represents the washing process in a home laundering or commercial laundering setting.

5.4.1.1 The washtub without a water wave may be used to present the washing process.

NOTE 2—The washtub without a water wave is used in the Canadian care symbol system.

5.4.2 Additional symbols inside the washtub indicate the suggested water temperature and hand-washing process.

5.4.3 Additional symbols below the tub indicate the permanent press cycle (one underline, minus sign, or bar) and delicate-gentle washing cycle (two underlines, minus signs, or bars).

5.4.3.1 Permanent dress and gentle/delicate cycle instructions may be reported in symbols or words on a label with the symbolic instructions for machine wash and the water temperature.

5.4.4 The numerical or the dot system or both illustrated in [Fig. 1](#) may be used to represent the maximum water temperature for machine and hand washing.

5.4.4.1 The six washing temperatures are 30 °C (80 °F), 40 °C (105 °F), 50 °C (120 °F), 60 °C (140 °F), 70 °C (160 °F), and 95 °C (200 °F) and shall be in Celsius when using the numerical water temperature system.

NOTE 3—The Fahrenheit temperatures, while not true conversions from Celsius to Fahrenheit, are within the range of tolerance and represent common consumer usage.

5.4.4.2 The symbols used to represent the maximum water temperature in the dot system are: six dots [95 °C (200 °F)], five dots [70 °C (160 °F)], four dots [60 °C (140 °F)], very hot, three dots [50 °C (120 °F)], hot, two dots [40 °C (105 °F)], warm, one dot [30 °C (85 °F)], cool/cold.

5.4.4.3 The water temperature placed in the hand washing symbol may be 40 °C (105 °F) or 30 °C (85 °F).

NOTE 4—In the Canadian care symbol system, a hand in a yellow washtub means *wash gently by hand in cool water (not exceeding 30 °C (85 °F))*. In the ISO system, a hand in a washtub means hand wash only, do not machine wash, maximum temperature 40 °C (105 °F), handle with care. A water temperature is not reported in either system.

5.4.5 To represent the care instruction for a specific wash condition, use the appropriate symbol as illustrated in [Fig. 1](#).

NOTE 5—Consumers may obtain washing machine temperatures that are frequently below the suggested temperature. The actual water temperature obtained when using the washing machine settings of hot, warm, and cold vary in North American by region, season, water heater settings, and regulations governing factory-set mixes. In general, North American



ASTM GUIDE TO CARE SYMBOLS					
 <b>Wash</b>	<u>Machine wash</u> Cycles & <u>Water temperatures</u> (maximum) symbol (s) dots & °C.	 normal	 permanent press	 delicate/gentle	 hand wash
	(200F) (160F) (140F) (120F) (105F) (65F–85F) 95 70 60 50 40 30 ••• ••• •• ••• •• •				
 <b>Bleach</b>	<u>Bleach when needed</u> any bleach only non-chlorine/oxygen bleach	 any bleach	 only non-chlorine/oxygen bleach		
 <b>Dry</b>	<u>Tumble dry</u> Cycles & <u>Heat settings</u>	 normal	 permanent press	 delicate/gentle	 line dry/hang to dry
	any high medium low no heat/air ••• ••• •• ••• •				 drip dry  dry flat
 <b>Iron</b>	<u>Iron when needed</u> dry or steam <u>Heat settings</u>	 high	 medium	 low	
					in the shade (added to line dry, drip dry, or dry flat)  no steam (added to iron)
 <b>Professional Textile Care</b>	<u>Dryclean</u> normal cycle (P) (F) any solvent gentle solvent petroleum or silicone solvent only	mild cycle (P) (F)	Do not dryclean 	<u>Wetclean</u> normal mild very mild (W) (W) (W)	Do not wetclean 

NOTE 1—This figure illustrates the symbols to use for laundering and drycleaning instructions. As a minimum, laundering instructions shall include, in order, four symbols: washing, bleaching, drying, and ironing; and, professional textile care instructions shall include one symbol. Additional symbols or words may be used to clarify the instructions.

FIG. 1 Commercial and Home Laundering and Professional Textile Care Symbols

washing machines do not have internal heaters.

NOTE 6—For consumer information the 30°C wash water is represented on the symbol charts by the temperature range of 65 to 85 °F because detergents are not effective at lower temperatures.

#### 5.5 The Bleaching Process—The Triangle Symbol:

5.5.1 The triangle represents the bleaching process.

5.5.2 The triangle and an additional symbol inside the triangle represent the type(s) of bleach to use.

5.5.3 A solid triangle on which the prohibitive “X” is superimposed represents the *do not bleach* warning.

NOTE 7—The Guide D5489 bleach symbols represent the three bleaching instructions listed in the Federal Trade Commission (FTC) Glossary of Terms. The FTC Care Labeling Trade Regulation Rule states, “If regular use of chlorine bleach would harm the product, but regular use of a non-chlorine bleach would not, the label must say “Only non-chlorine bleach, when needed.”

NOTE 8—The bleach symbol in the Canadian symbol system, a yellow

triangle with the letters *Cl* inside, means *use chlorine-based bleach with care*. The bleach warning symbol in the Canadian system, a red triangle enclosing the letters, *Cl* on which a red “X” is superimposed, means *do not use chlorine-based bleach*.

5.5.4 To represent the care instruction for a specific bleaching condition, use the appropriate symbol as illustrated in Fig. 1.

#### 5.6 The Drying Process—The Square Symbol:




























5.6.1 The square represents the drying process.

5.6.2 Additional symbols inside the square represent the type of drying process to use, including tumble dry, line dry, drip dry, dry flat, and dry in shade.

5.6.3 Additional symbols below the tumble dry symbol indicate the permanent press cycle (one underline, one minus sign, or bar) and the delicate-gentle cycle (two underlines, minus signs, bars).

## GUIDE TO ORDER OF ASTM CARE SYMBOLS

The care instruction symbols shall be in the following order:

WASH OR DRYCLEAN	=	    	WASH BLEACH DRY IRON DRYCLEAN
WASH	=	   	
DRYCLEAN	=		DRYCLEAN
WASH OR DRYCLEAN OR WETCLEAN	=	     	DRYCLEAN WETCLEAN
DRYCLEAN OR WETCLEAN	=	 	DRYCLEAN WET- CLEAN
WASH DO NOT DRYCLEAN	=	    	
DO NOT WASH DRYCLEAN	=	 	DRYCLEAN
DO NOT WASH DO NOT DRYCLEAN	=	 	

### Examples of care instructions:











    	
	= Machine wash, warm, 40C (105F) Permanent press
	= Only non-chlorine bleach when needed
	= Tumble dry, low
	= Steam iron, medium
	= Dryclean, any solvent, modified cycle

FIG. 2 Guide to Order of ASTM Care Symbols



FIG. 3 Basic Symbols



FIG. 4 Prohibitive Symbols

5.6.3.1 Permanent press and gentle/delicate cycle instructions may be reported in words along with symbolic instructions for tumble drying and the dryer heat setting.

5.6.4 The dot(s) used to represent the dryer temperatures are: three dots (high), two dots (medium), one dot (low), no dots (any heat), and, a solid or filled-in circle (no heat/air).



5.6.5 To represent the care instruction for a specific drying condition, use the appropriate symbol as illustrated in Fig. 1.

#### 5.7 The Ironing Process—The Hand Iron Symbol:

5.7.1 The hand iron represents both the hand ironing process and the pressing process on commercial equipment in laundering and cleaning plants.

5.7.1.1 The iron represents steam and dry ironing.

5.7.1.2 An iron with a closed handle may be used to represent ironing instructions.

NOTE 9—The iron with the closed handle is used in the Canadian care symbol system.

5.7.2 Additional ironing symbols include dot symbols inside the iron to represent the temperature setting and the steam burst under the iron.

5.7.2.1 The three maximum temperatures for the iron heat settings are 200 °C (390 °F) for high (3 dots), 150 °C (300 °F) for medium (2 dots), and 110 °C (230 °F) for low (1 dot).

5.7.2.2 The warning symbol, crossed-out steam lines under the iron, or words, may be used to report the warning *do not steam*.

5.7.3 To represent the care instruction for a specific ironing condition, use the appropriate symbol as illustrated in Fig. 1.

#### 5.8 The Drycleaning Process—The Circle Symbol:

5.8.1 The circle represents the professional textile care processes of drycleaning and professional wetcleaning. The circle symbol must be used with the letters “P,” “F,” or “W” within the circle to indicate the proper method of care. The circle symbol must not appear without an appropriate letter code.

5.8.2 The letter “F” enclosed in the circle symbol represents drycleaning in hydrocarbon solvent or silicone solvent (defined by safety and process parameters below). Drycleaning in tetrachloroethylene (perchloroethylene) solvent is not allowed.

	Solvent Safety		Solvent Process		
	Distillation Temperature	Flashpoint	Cycle Time	Moisture	Drying Temperature
Hydrocarbon	150–210 °C	38–70 °C	20–25 min	1½ %	60–65 °C (140–150 °F)
Silicone	180–210 °C	38–77 °C	17–25 min	≤1½ %	60–70 °C (140–158 °F)

NOTE 10—The “A” (formerly representing the instruction, dryclean in any solvent) shall no longer be used in the circle symbol that now represents professional textile care. Tetrachloroethylene solvent is also called perchloroethylene and tetrachloroethene solvent. Petroleum solvent is a type of hydrocarbon solvent. Silicone is a cyclic siloxane.

5.8.3 Additional symbols with the drycleaning symbol give additional information concerning the drycleaning process.

5.8.3.1 The iron symbol may be used with the drycleaning symbol to report how to restore the item by ironing after wearing.

5.8.4 Professional wetcleaning is an optional instruction. The absence of a wetcleaning symbol means that the item has not been tested for the wetcleaning process. Machine washing symbols may be used to determine the professional wetcleaning process. Items labeled as machine washable are also professionally wetcleanable. A professional wetclean instruction is informative when the item is labeled “do not wash” or “hand wash.” The professional wetclean symbol may only be

used when another full care instruction is included, such as when drycleaning or machine washing/drying symbols are present.

#### 5.9 Required Number and Order of Symbols:

5.9.1 To represent the laundering process on a care label, a minimum of four care instruction symbols in the following order—washing, bleaching, drying, and ironing—shall be used (see Fig. 2).

5.9.1.1 The required symbol may be a prohibitive symbol (“X”), if necessary.

5.9.1.2 Additional warnings and information in symbols or words, as appropriate, shall be placed after or below the four laundering symbols or in the logical refurbishing sequence of the written instructions.

5.9.2 To represent the drycleaning process on a care label, the drycleaning symbol, as a minimum, shall be used. (See Fig. 2.)

5.9.2.1 As appropriate, additional warnings and information shall be placed around, after, or below the drycleaning symbol or in the logical refurbishing sequence of the written instructions.

NOTE 11—The ISO care symbol system requires four care symbols in the following order: washing, bleaching, ironing, and drycleaning. Tumble drying is an optional symbol, which, if used, appears after the four symbols.

#### 5.10 Supplementary Care Information:

5.10.1 Additional written care information in English (or the appropriate national language) may be necessary to convey special instructions not covered by the appropriate care symbol or may be legislated by the country of origin. See Fig. 1 and Table 1.

5.10.1.1 For example, the words “remove promptly” shall be added to an article for which this instruction would be appropriate.

5.10.2 The additional words shall appear on the care label in the logical refurbishing sequence.

5.10.3 The written information on a care symbol label shall be brief.

5.10.4 The symbol information and any accompanying detailed written instructions shall be consistent.

#### 5.11 Appropriate Instructions and Labels:

5.11.1 It is the responsibility of the manufacturer, or importer to provide the correct information on the care label for refurbishment.

5.11.2 Determining and confirming care instructions requires setting performance specifications, testing, and evaluating the textile product.

5.11.2.1 To aid in determining and confirming appropriate instructions, see Guide D3938 and published test methods and performance specifications are available in the current *Annual Book of ASTM Standards*, Vols 07.01 and 07.02, and the current Technical Manual of the American Association of Textile Chemists and Colorists (see 2.1 and 2.2).

5.11.3 In the United States, care labels must be attached permanently to domestic and imported apparel except when exempted by the U.S. Federal Trade Commission Regulation (see 2.3).



**TABLE 1 Additional Words to Use with Care Symbols**

NOTE 1—This guide uses symbols to represent many textile refurbishing procedures. Additional words may be needed to clarify specific care procedures. This table of additional words to use with care symbols includes the remaining terms listed in the Federal Trade Commission Care Labeling Glossary of Standard Terms and additional terms in common usage. These terms are illustrative only and are not meant to be an exhaustive list of all terms that might be appropriate or necessary. In general, whatever additional words are needed to state a care procedure that will result in the adequate refurbishment of the item should be used.

Federal Trade Commission Standard Terms	Terms in Common Usage
<i>Preliminary and Laundering Instructions</i>	
do not have commercially laundered	close zippers
small load	do not pretreat
separately	do not soak
with like colors	remove buttons
wash inside out	remove lining
	remove shoulder pads
	remove trim
	wash dark colors separately
	wash once before wearing
	wash separately
	wash with like colors
warm rinse	do not use fabric softener
cold rinse	remove promptly
rinse thoroughly	rinse twice
no spin or do not spin	use oversize washing machine
no wring or do not wring <sup>A</sup>	use powdered detergent only
no wring or twist <sup>A</sup>	use liquid detergent only
damp wipe only	
<i>Bleaching (all terms represented by symbols)</i>	
<i>Drying, All Methods</i>	
no heat <sup>A</sup>	tumble dry, air <sup>A</sup>
remove promptly	do not tumble dry
line dry in the shade <sup>A</sup>	reshape and dry flat
line dry away from heat	block flat to dry
block to dry	
smooth by hand	
<i>Ironing and Pressing</i>	
iron wrong side only	do not iron decal
no steam or do not steam <sup>A</sup>	iron reverse side only
steam only	iron right side only
iron damp	warm iron if needed
use press only	use press cloth
<i>Wash or Dryclean (can be represented with symbols)</i>	
<i>Drycleaning, All Methods</i>	
professionally dryclean	fur clean
short cycle <sup>A</sup>	use clear solvent
minimum extraction	clear distilled solvent rinse
reduced or low moisture <sup>A</sup>	
tumble warm	low heat <sup>A</sup>
tumble cool	
cabinet dry warm	
cabinet dry cool	
no steam or do not steam	no steam finishing
steam only	
use fluorocarbon solvent	
<i>Additional Instructions</i>	
Send to a professional leather cleaner. Do not wash or dryclean by fabric methods.	
Fur clean.	

<sup>A</sup> Care instruction may be reported in words or a symbol.

5.11.4 Permanent care labels shall remain attached and legible for the life of the textile product.

5.11.5 Either the care label or the detailed care instructions shall be visible at the point of purchase.

## **6. Keywords**

6.1 bleaching; care instructions; care label; care symbol; consumer textile product; drycleaning; drying; ironing; permanent care label; pressing; washing

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