



Designation: D 3938 – 9600

Standard Guide for Determining or Confirming Care Instructions for Apparel and Other Textile Consumer Products¹

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1. Scope

1.1 This guide may be used to determine and confirm the appropriate care label instructions for apparel, piece goods, and other consumer textile products excluding textile floor coverings and ~~upholstered fabrics, upholstery.~~

1.2 This guide encompasses the following care procedures: home laundering, commercial laundering, professional drycleaning, and coin-operated drycleaning.

1.3 This guide includes provision for evaluating the complete ~~consumer~~ textile product and the product components.

1.4 This guide covers the performance characteristics as a result of refurbishing that are important in determining the acceptability of a textile ~~product to the consumer, product.~~

1.5 This guide is appropriate for the evaluation of all garments and household textiles that are sold with ~~permanently attached~~ care labels.

1.5.1 This guide may also be used in connection with the evaluation of similar materials that do not have a care label.

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

2. Referenced Documents

2.1 *ASTM Standards:*

¹ This guide is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.62 on Textile Care Labeling. Current edition approved ~~Jan. Dec. 10, 1996; 2000.~~ Published ~~August 1996; March 2001.~~ Originally published as D 3938 – 93. Last previous edition D 3938 – 936.

D 123 Terminology Relating to Textiles²

D 3136 Terminology Relating to Care Labels for Consumer Textile and Leather Products Other Than Carpets Textile Floor Coverings and Upholstery²

2.2 AATCC Methods:

Technical Manual of the American Association of Textile Chemists and Colorists

Method 188 Colorfastness to Sodium Hypochlorite Bleach in Home Laundering³

2.3 Other Standards:

Federal Trade Commission Trade Regulation Rule. *Care Labeling of Textile Wearing Apparel and Certain Piece Goods.*

Effective July 3, 1972, As Amended January 2, 1984 (cited as 16 CFR 423)⁴

*The National Standard of Canada—Care Labelling of Textiles—(CAN/CSGB-86.1-M87)*⁴

² *Annual Book of ASTM Standards*, Vol 07.01.

³ Available from ~~Federal Trade Commission, 6th Street~~ American Association of Textile Chemists and ~~Pennsylvania Avenue, NW, Washington, DC 20580.~~ Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.

⁴ Available from ~~Canadian Government Publishing Centre, Supply~~ Federal Trade Commission, 6th Street and ~~Services Canada, Publication Section, Hull (Quebec) K1A 0S9;~~ Pennsylvania Avenue, NW, Washington, DC 20580.

~~2.3 AATCC Methods:~~

~~Technical Manual of the American Association of Textile Chemists and Colorists (CAN/CSGB-86.1-M91)⁵~~

3. Terminology

3.1 Definitions:

3.1.1 For definitions of other textile terms used in this guide, refer to Terminology D 123. For definitions of terms related to care instructions, refer to Terminology D 3136.

~~3.1.2 care instructions, n—in textiles, a series of directions describing which care that describe practices which should refurbish a product without adverse effects and warnings for those care practices warn against any part of the directions which one could reasonably be expected to have a harmful effect.~~

~~3.1.2 care label, n—a label use that gives directions for refurbishing a product. may harm the items.~~

~~3.1.3 care procedure, n—for consumer textile products, a process by which products or specimens may be treated for soil removal and aesthetic improvement.~~

~~3.1.3.1 Discussion—The process employs appropriate equipment, materials and processes, and may include but need not be limited to the following: water or drycleaning solvent, detergent or soap, foam, absorption (powder) type compounds, bleach, agitation, drying, pressing or ironing.~~

~~3.1.4 commercial laundering, n—a process by which textile products or specimens may be washed, bleached, dried, and pressed by non-home type equipment, typically at higher temperatures, higher pH, and longer times than used for home laundering.~~

~~3.1.5 consumer care, n—of consumer textile products, cleaning and maintenance procedures as customarily undertaken by the ultimate consumer.~~

~~3.1.6 consumer textile product, n—a textile product intended to satisfy human wants and needs.~~

~~3.1.6.1 Discussion—Textile consumer products include such products as yarns, piece goods, clothing, zippers and trim, table linens, draperies, curtains, towels, bedsheets, and slipoovers. The component parts of consumer textile products may include such other materials as suede, leather and fur.~~

~~3.1.7 drycleaning, n—a commercial process by which soil may be removed from textile products or parts thereof in a machine which uses petroleum, perchloroethylene, or fluorocarbon solvents.~~

~~3.1.7.1 Discussion—The process may include moisture addition to solvent up to 75 % relative humidity, hot tumble drying up to 71°C (160°F), and restoration by steam or steam air finishing.~~

~~3.1.8 home laundering, n—a process by which textile products or parts thereof may be washed, bleached, dried, and pressed by any customary method designed for use in a residence, or non-professional use. (See also professional care.)~~

~~3.1.9 laundering, n—a process used to refurbish a textile product or parts thereof by (1) cleaning it in water containing a cleaning agent, and possibly bleach, (2) drying it, and (3) usually ironing or pressing it.~~

~~3.1.10 main components, n—in textiles, those sections of a consumer product which constitute the largest continuous homogeneous areas of the product that are typical of the product.~~

~~3.1.11 permanent care label, n—as applied to textile products, a care label that remains legible and attached to a textile product throughout its useful life.~~

~~3.1.12 professional care, n—for consumer textile products, overall cleaning and maintenance procedures requiring the services of a person specially trained or skilled in their use and usually earning a livelihood by their cleaning.~~

~~3.1.13 refurbish, n—as applied to textile products, to brighten or freshen up and restore to wearability or use by cleaning such as drycleaning, laundering, or steam cleaning.~~

~~3.1.14 specification, n—a precise statement of a set of requirements to be satisfied by a material, product, system, or service that indicates the procedures for determining whether each of the requirements is satisfied.~~

~~3.1.14.1 Discussion—It is desirable to express the requirements numerically in terms of appropriate units together with their limits.~~

3.2 For definitions of other textile terms used in this practice, refer to Terminology D 123. For definitions of terms related to permanent care labeling refer to Terminology D 3136.

4. Significance and Use

4.1 This is a guide to help a manufacturer distributor, or importer establish a reasonable basis for care information.

4.2 The manufacturer, distributor, or importer should possess, prior to sale, reliable evidence that the product was not harmed when refurbished reasonably often according to the instructions. Additionally they should possess reliable evidence that the product or a fair sample of the product would be harmed when refurbished by methods warned against on the label.

4.3 This guide is intended for general use by those who wish to determine whether apparel or other consumer textile products will perform in an acceptable manner when the care instructions on the label are followed.

4.4 Refurbished products are evaluated against previously selected product performance specifications to determine whether the products can be refurbished successfully by following the instructions on the care label.

⁵ Available from American Association of Textile Chemists Canadian Government Publishing Centre, Supply and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709; Services Canada, Publication Section, Hull (Quebec) K1A 0S9.

5. Summary of Guide

5.1 This guide describes general procedures for determining and confirming instructions on a care label for a ~~consumer~~ textile product.

5.2 General procedures include setting minimum or maximum performance specifications for the product, selecting appropriate standards and test methods to match the care label instructions, conducting the testing and evaluation process, and writing the report.

5.3 The products are evaluated for change in dimension, hand, appearance, or other performance characteristics as a result of refurbishing.

6. General Considerations

6.1 Care instructions can be determined by testing the component parts or by testing the completed ~~consumer~~ textile product or both if necessary.

6.1.1 When confirming the care label the testing shall be done on the completed ~~consumer~~ textile product.

6.2 The test methods and evaluation processes selected to represent the washing, bleaching, drying, ironing, and drycleaning care label instructions shall simulate at least 3 complete refurbishing cycles.

6.2.1 The actual number of complete refurbishing cycles shall be agreed upon by the purchaser and the ~~seller~~ supplier.

6.2.2 One complete refurbishing cycle includes either (1) laundering including washing and drying, and, if appropriate, bleaching and/or ironing; ~~or~~, (2) drycleaning and pressing; or, (3) wet cleaning and restorative treatment.

6.3 Test results that meet or exceed the preset specifications for performance characteristic confirm the selection of the suitable care label instructions.

7. Product Characteristics for Evaluation as a Result of Refurbishing

7.1 *Change in Dimensions:*

7.1.1 Shrinkage.

7.1.2 Growth.

7.1.3 Distortion caused by uneven growth or shrinkage.

7.1.4 Distortion caused by incompatible shrinkage of components including basic fabrics and items such as zippers, linings, interfacings, interlinings, sewing thread, waist bands, pockets, seam bindings or tape, textile trim, nontextile trim, and labels.

7.2 *Change in Hand:*

7.2.1 Changes in the physical properties related to the hand of fabrics listed in Annex A3 of Terminology D 123.

7.3 *Change in Appearance:*

7.3.1 Loss or change of color.

7.3.2 Staining or self-staining, that is transference, or running of original color from one product to another or from one area to another area on the same product.

7.3.3 Distortion and loss or change in surface appearance or structure (such as, pilling, fuzzing, snagging, or matting; or loss of nap, flocking, embossing, or fabric smoothness; or other effects).

7.3.4 Change in appearance caused by incompatibility of components resulting in defects such as puckering of seams.

7.3.5 Change in appearance caused by ineffectiveness of recommended cleaning procedure, such that the textile product is no longer wearable or acceptable. Stain removal is not to be considered in this context.

7.4 *Change in Performance:*

7.4.1 Loss of claimed functional properties (stated or implied) such as durable press, water repellency, anti-static, flame-resistant, or soil release.

7.4.2 Loss of performance of construction or design caused by sewing (such as, needle cutting, feed-dog abrasion, ravelling of seams, removal of appliques and trim, and malfunction of closures or other hardware).

7.4.3 Failure of textile structure resulting from laundering or dry cleaning (for example, delamination).

8. Selection of Performance Specifications and Test Methods

8.1 If the textile product to be evaluated has no care label, determine a set of care instructions suitable for the item.

8.1.1 On making the final determination consider factors such as fiber content, fabric construction, item construction, findings, color and finish applications, and end use.

8.2 If the ~~consumer~~ textile product to be evaluated has an attached care label, then confirm the care by using the designated instructions on the label.

8.3 Select from the product characteristics listed in Section 7 those specific properties that are to be evaluated for the samples to be tested.

8.3.1 The specific properties are not limited to those examples listed, but may include all items which are agreed upon between the purchaser and supplier.

8.3.2 Select the performance specification level for each product characteristic to be evaluated.

8.4 Select test methods that are comparable with the care instructions to serve as the basis for evaluation of acceptable performance for the care label.

8.4.1 The test procedures must be at least as severe as the conditions specified in the care label instruction.

8.5 Tables 1 and 2 list some of the common performance specifications and test methods.

8.5.1 Performance specifications and some test methods are found in the current editions of the *Annual Book of ASTM Standards, Vols 07.01 and 07.02*.

8.5.2 Some test methods are found in the current edition of the *Technical Manual of the American Association of Textile Chemists and Colorists*.

8.6 Subject the product to a minimum of 3 refurbishing cycles.

8.6.1 The actual number of complete refurbishing cycles shall be agreed upon between the purchaser and seller.

8.7 The apparatus and materials used in this guide are those specified in the standards and test methods.

8.8 Sampling and conditioning methods used in this guide are those specified in the test methods.

8.9 Where less common care instructions, for example, “wipe with a damp cloth,” are to be used, an appropriate care practice shall be used to evaluate the product.

9. Evaluation

9.1 Make all evaluations on the refurbished product.

TABLE 1 Some ASTM Performance Specifications and Practices for Fabrics and Consumer Textile Products^A

D 4847	Awning and Canopy Fabrics, Woven
D 4110	Bathrobe, Dressing Gown, and Pajama Fabrics, Knitted, Men's and Boys'
D 3784	Bathrobe and Dressing Gown Fabrics, Woven, Men's and Boys'
D 4154	Beachwear and Sport Shirt Fabrics, Knitted and Woven, Men's and Boys'
D 4037	Bedsread Fabrics, Woven, Knitted, or Flocked
D 4235	Blouse and Dress Fabrics, Knitted, Women's and Girls'
D 4233	Brassiere Fabrics, Knitted and Woven, Women's and Girls'
D 4232	Career Apparel Fabrics, Dress and Vocational, Men's and Women's
D 3995	Career Apparel Fabrics, Knitted, Dress and Vocational, Men's and Women's
D 3781	Coat Fabrics, Knitted Rainwear and All-Purpose, Water-Repellent, Men's and Boys'
D 3600	Coat Fabrics, Woven Rainwear and All-Purpose, Water-Repellent, Men's and Boys' (Discontinued 1988†—Replaced by Specification D 3779)
D 3779	Coat Fabrics, Woven Rainwear and All-Purpose, Water-Repellent, Women's and Girls'
D 4769	Comforter Fabrics, Woven and Warp Knitted
D 4116	Corset-Girdle Combination Fabrics, Knitted and Woven, Women's and Girls'
D 4109	Coverall, Dungaree, Overall, and Shop Coat Fabrics, Woven, Men's and Boys'
D 4118	Coverall, Dungaree, Overall and Shop Coat Fabrics, Woven, Women's
D 4152	Dish, Huck, and Terry Bath Towel Fabrics, Woven, Institutional
D 4038	Dress and Blouse Fabrics, Woven, Women's and Girls'
D 3778	Dress Coat Fabrics, Drycleanable Woven, Women's and Girls'
D 4115	Dress Glove Fabrics, Knitted and Woven, Women's and Girls'
D 3477	Dress Shirt Fabrics, Woven, Men's and Boys'
D 4119	Dress Shirt Fabrics, Knitted, Men's and Boys'
D 3782	Dress Suit Fabrics and Sportswear Jacket, Slack, and Trouser Fabrics, Knitted, Men's and Boys'
D 3780	Dress Suit Fabrics and Sportswear Jacket, Slack, and Trouser Fabrics, Woven, Men's and Boys'
D 3562	Dress Topcoat and Dress Overcoat Fabrics, Woven, Men's and Boy's
D 4522	Feather-Filled and Down-Filled Products
D 3783	Flat Lining Fabrics, Woven, for Men's and Boys' Apparel
D 4114	Flat Lining Fabrics, Woven, for Women's and Girls' Apparel
D 4153	Handkerchief Fabrics, Woven, Men's, Women's, and Children's
D 3993	Household Blanket Fabrics, Woven, Thermal, Flocked, Nonwoven, and Knitted
D 3691	Household Curtain and Drapery Fabrics, Woven, Lace, and Knit
D 4111	Household and Institutional, Napery and Tablecloth Fabrics, Woven
D 3821	Household Kitchen and Bath Towel Fabrics, Woven Terry
D 4036	Household Pillowcase, Bed Sheet, and Crib Sheet Fabrics, Woven and Knit
D 4035	Necktie and Scarf Fabrics, Knitted
D 3785	Necktie and Scarf Fabrics, Woven
D 3655	Overcoat and Jacket Fabrics, Sliver Knitted, Men's and Women's
D 3819	Pajama Fabrics, Woven, Men's and Boys'
D 4234	Robe, Negligee, Nightgown, Pajama, Slip, and Lingerie Fabrics, Knitted, Women's and Girls'
D 4117	Robe, Negligee, Nightgown, Pajama, Slip, and Lingerie Fabrics, Woven, Women's and Girls'
D 3692	Selection of Zippers for Care-Labeled Apparel and Household Furnishings
D 4113	Slipcover Fabrics, Woven
D 4156	Sportswear Fabrics, Knitted, Women's and Girls'
D 4155	Sportswear, Shorts, Slacks, and Suiting Fabrics, Woven, Women's and Girls'
D 3782	Sportswear Jacket, Slack, and Trouser Fabrics, Dress Suit Fabrics, Knitted, Men's and Boys'
D 3996	Swimwear Fabrics, Knit, Men's, Women's, and Children's
D 3994	Swimwear Fabrics, Woven
D 4112	Umbrella Fabrics, Woven
D 3820	Underwear Fabrics, Woven, Men's and Boys'
D 3690	Upholstery Fabrics, Indoor, Vinyl-Coated and Urethane-Coated
D 4771	Upholstery Fabrics, Knitted, for Indoor Use
D 3597	Upholstery Fabrics, Woven—Plain, Tufted, or Flocked
D 3657	Zipper Dimensions
D 4465	Zippers for Denim Dungarees

^AFor a current and complete list, refer to the current editions of the *Annual Book of ASTM Standards, Vols 07.01 and 07.02*.

TABLE 2 Some Standards and Test Methods Used to Determine or Confirm Care Label Instructions on a Consumer Textile Product

<i>WASHING AND DRYING</i>	
ASTM D 2057	Test Method for Colorfastness of Zippers to Laundering
ASTM D 2051	Test Method for Durability of Finish of Zippers to Laundering
ASTM D 1683	Test Method for Failure in Sewn Seams of Woven Fabrics
ASTM D 4685	Test Method for Pile Retention of Corduroy Fabrics
AATCC 143	Appearance of Apparel and Other Textile End Products after Repeated Home Laundering
AATCC 124	Appearance of Durable Press Fabrics after Repeated Home Laundering
AATCC 142	Appearance of Flocked Fabrics After Repeated Home Launderings and/or Coin-Op Drycleaning
AATCC 61	Colorfastness to Laundering, Home, and Commercial: Accelerated
AATCC 135	Dimensional Changes in Automatic Home Laundering of Woven and Knit Fabrics
AATCC 96	Dimensional Changes in Commercial Laundering of Woven and Knitted Textile Fabrics Except Wool
<i>BLEACHING</i>	
AATCC 3	Colorfastness to Bleaching with Chlorine
AATCC 101	Colorfastness to Bleaching with Peroxide
AATCC 172	Colorfastness to Non-Chlorine Bleach in Home Laundering
<u>AATCC 188</u>	<u>Colorfastness to Sodium Hypochlorite Bleach in Home Laundering</u>
<i>IRONING</i>	
AATCC 88C	Appearance of Creases in Durable Press Items After Home Laundering
AATCC 88B	Appearance of Seams in Durable Press Items After Home Laundering
AATCC 128	Wrinkle Recovery of Fabrics: Appearance Method
AATCC 66	Wrinkle Recovery of Fabrics: Recovery Angle Method
<i>DRYCLEANING</i>	
AATCC 132	Colorfastness to Drycleaning
AATCC 158	Dimensional Changes on Drycleaning in Perchloroethylene: Machine Method
ASTM D 2052	Test Method for Colorfastness of Zippers to Drycleaning
ASTM D 2058	Test Method for Durability of Finish of Zippers to Drycleaning
ASTM D 2721	Test Method for Effects of Drycleaning on Permanence of Durable Water-Repellent Finish (Discontinued 1989)
ASTM D 2724	Test Methods for Bonded, Fused, and Laminated Apparel Fabrics

^A For a current and complete list, refer to the current editions of the *Annual Book of ASTM Standards, Vols 07.01 and 07.02* and the *Technical Manual of the American Association of Textile Chemists and Colorists*

9.2 Evaluate the performance of each refurbished sample with respect to each of the previously designated characteristics.

9.3 Performance standards should be agreed upon by the purchaser and ~~seller~~ supplier or the end-use standards of ASTM Committee D-13 shall be used.

9.4 The levels of performance under the applicable care label instructions shall meet or exceed those stated in the appropriate ASTM performance specifications or industry standards.

9.4.1 These standards shall be determined by the purchaser and ~~seller~~ supplier. It is the responsibility of the manufacturer to meet these standards.

9.5 The test results shall be compared with the appropriate performance specifications.

10. Evaluation Form

10.1 The worksheet for recording the evaluation of the product must be simple enough for a technician to use with ease and with full understanding.

10.2 The worksheet shall make provision for inclusion of all characteristics of the product that are important to the consumer, purchaser, or ~~seller~~ supplier; including but not limited to those listed in Section 7 of this guide.

10.3 The form shall show the performance requirements for the predetermined properties decided upon by those using this guide.

10.4 When completed, the form shall show the evaluation assigned to each performance characteristic for each sample.

11. Conformance

11.1 If any sample fails to show an acceptable performance with respect to any of the previously designated characteristics, it shall be deemed unsatisfactory.

11.2 The overall appearance of the sample should be considered as well as the individual characteristics.

11.3 If the item fails to meet specified levels of performance, the care label instructions or the merchandise shall be changed to meet the specified level of performance and the care label instructions reconfirmed.

11.3.1 When the purchaser and supplier have agreed upon specific requirements for the characteristics that are to be considered, apparel and other ~~consumer~~ textile products that fail to meet these requirements may be rejected. Rejection should be reported to the supplier in writing. In case of disagreement with results of the test, the seller may request for a retest.

12. Report

12.1 State that the items were tested as directed in the test methods ~~used and report~~ used. Describe the following information:

~~12.2 Describe the consumer textile product tested and report tested.~~

12.2 Report the following information:

12.2.1 Objective of the testing.

12.2.2 Description and identification of product(s).

12.2.3 Each preset product characteristic performance specification.

12.2.4 Each standard/test method used to evaluate each refurbishing process.

12.2.5 Method of sampling.

12.2.6 Number of specimens tested.

12.2.7 Additional details as specified in the individual test method sections on reporting.

12.2.8 Results and conformance to preset performance characteristics.

12.2.9 Specifics of any departures from a standard test method agreed upon by the purchaser and seller.

12.2.10 Conclusion, if appropriate.

13. Preparation of Care Label Instructions

13.1 Care label instructions for the United States shall conform to the standard terms and labeling practices described in the Federal Trade Commission Trade Regulation Rule, *Care Labeling of Textile Wearing Apparel and Certain Piece Goods*.

13.2 Care label instructions using symbols for Canada shall conform to the standard symbols and labeling practices described in the *National Standard of Canada—Care Labelling of Textiles*.

13.3 Care label instructions for other countries shall conform to the labeling practices of that country.

13.4 Additional information on terminology is provided in ~~ASTM D123 Standard Terminology Relating to Textiles and Terminology Terminologies D 3136 For Permanent Care Labels For Consumer Textile and Leather Products Other than Carpet and Upholstery—D 123~~.

14. Precision and Bias

14.1 The precision and bias statements of the referenced test methods shall be used.

15. Keywords

15.1 apparel; care instructions; care label; ~~apparel; consumer textile products; laundering; drycleaning~~; home laundering; ~~drycleaning~~ laundering; textile products

APPENDIX

(Nonmandatory Information)

X1. RATIONALE

X1.1 In 1971, the Federal Trade Commission published a Trade Regulation Rule which required apparel manufacturers to place care labels on apparel products. The revised Rule became effective January 2, 1984 and includes a requirement that there should be a “reasonable basis” for knowing that the care instruction would not “impair the use or enjoyment” of the product. This standard is a guide which may be used by manufacturers, importers, distributors, and/or retailers to verify that a designated care instruction is suitable or determine one which will be.

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