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Standard Guide for Conducting Wear Tests on Textiles¹

This standard is issued under the fixed designation D3181; 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 (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide is intended to provide guidance for the design of an experiment for the purpose of developing a prediction of expected wear performance of apparel and textile products when exposed to actual use conditions.

1.2 This guide recommends the use of a product for which a history of its performance is known from laboratory testing and consumer use as the basis for statistical significance of new product's performance, however, other design or experimental approaches may be used.

1.3 The wide variety of textile products and the conditions under which consumers will use products prevents the inclusion of all types of wear trial experiments for research and development, product innovation studies, and special needs such as those for healthcare industry or military.

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:²

2.1.1 Fabric and Apparel Tests:

[D2051 Test Method for Durability of Finish of Zippers to Laundering](#)

[D2052 Test Method for Colorfastness of Zippers to Dry-cleaning](#)

[D2057 Test Method for Colorfastness of Zippers to Laundering](#)

[D2058 Test Method for Durability of Finish of Zippers to Drycleaning](#)

[D3511 Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Brush Pilling Tester](#)

[D3512 Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Random Tumble Pilling Tester](#)

[D3514 Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Elastomeric Pad](#)

[D3884 Guide for Abrasion Resistance of Textile Fabrics \(Rotary Platform, Double-Head Method\)](#)

[D3885 Test Method for Abrasion Resistance of Textile Fabrics \(Flexing and Abrasion Method\)](#)

[D3886 Test Method for Abrasion Resistance of Textile Fabrics \(Inflated Diaphragm Apparatus\)](#)

[D3938 Guide for Determining or Confirming Care Instructions for Apparel and Other Textile Products](#)

[D4157 Test Method for Abrasion Resistance of Textile Fabrics \(Oscillatory Cylinder Method\)](#)

[D4231 Practice for Evaluation of Launderable Woven Dress Shirts and Sports Shirts](#)

[D4390 Practice for Evaluation of the Performance of Terry Bathroom Products for Household Use \(Withdrawn 1994\)³](#)

2.1.2 Other ASTM Standards:

[D123 Terminology Relating to Textiles](#)

[D4850 Terminology Relating to Fabrics and Fabric Test Methods](#)

[D7022 Terminology Relating to Apparel](#)

2.2 AATCC Standards:⁴

2.2.1 Colorfastness and Physical Properties:

[8 Colorfastness to Crocking: AATCC Crockmeter Method](#)

[15 Colorfastness to Perspiration](#)

[16 Colorfastness to Light](#)

[61 Colorfastness to Laundering: Accelerated](#)

[88B Smoothness of Seams in Fabrics After Repeated Home Laundering](#)

¹ This guide is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.60 on Fabric Test Methods, Specific.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ *Annual AATCC Technical Manual*, available from American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709, www.aatcc.org.