



Designation: D3884 – 22

Standard Guide for Abrasion Resistance of Textile Fabrics (Rotary Platform Abrader Method)¹

This standard is issued under the fixed designation D3884; 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 covers the determination of the abrasion resistance of textile fabrics using the rotary platform abrader.

NOTE 1—Other procedures for measuring the abrasion resistance of textile fabrics are given in Test Methods [D3389](#), [D3885](#), [D3886](#), [D4157](#), [D4158](#), [D4685](#), [D4966](#), and AATCC 93. To determine the abrasion resistance of leather, refer to Test Method [D7255](#).

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.2.1 *Exception*—English units are used when referencing rotational speed.

1.3 *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.*

1.4 *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

[D123](#) Terminology Relating to Textiles

[D1776](#) Practice for Conditioning and Testing Textiles

[D3389](#) Test Method for Coated Fabrics Abrasion Resistance (Rotary Platform Abrader)

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

¹ This guide is under the jurisdiction of ASTM Committee [D13](#) on Textiles and is the direct responsibility of Subcommittee [D13.60](#) on Fabric Physical Test Methods B.

Current edition approved June 1, 2022. Published July 2022. Originally approved in 1980. Last previous edition approved in 2017 as D3884 – 09(2017). DOI: 10.1520/D3884-22.

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.

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

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

[D4158](#) Guide for Abrasion Resistance of Textile Fabrics (Uniform Abrasion)

[D4685](#) Test Method for Pile Fabric Abrasion

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

[D4848](#) Terminology Related to Force, Deformation and Related Properties of Textiles

[D4966](#) Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)

[D5034](#) Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)

[D5035](#) Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)

[D7255](#) Test Method for Abrasion Resistance of Leather (Rotary Platform, Abraser Method)

[G195](#) Guide for Conducting Wear Tests Using a Rotary Platform Abraser

2.2 Other Documents:

AATCC 93 Abrasion Resistance of Fabrics: Accelerator Method³

3. Terminology

3.1 For all terminology relating to D13.60, Fabric Test Methods, Specific, refer to Terminology [D4850](#). For the definition of breaking force, refer to Terminology [D4848](#).

3.2 Definitions:

3.2.1 The following terms are relevant to this standard: abrasion, abrasion cycle, breaking force.

3.2.2 *resurface, v*—procedure of cleaning and refreshing the running surface of an abrasive wheel prior to use or during testing.

3.3 For all other terminology related to textiles, refer to Terminology [D123](#).

³ Available from American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Research Triangle Park, NC 27709, <http://www.aatcc.org>.