



Designation: D5035 – 11 (Reapproved 2019)

Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)¹

This standard is issued under the fixed designation D5035; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This test method covers raveled strip and cut strip test procedures for determining the breaking force and elongation of most textile fabrics. Provision is made for wet testing.

1.1.1 The raveled strip test is applicable to woven fabrics while the cut strip test is applicable to nonwoven fabrics, felted fabrics, and *dipped* or coated fabrics.

1.2 This test method is not recommended for knitted fabrics or for other textile fabrics which have high stretch (more than 11 %).

NOTE 1—For the determination of the breaking force and elongation of textile fabrics using the grab test and modified grab test procedures, refer to Test Method [D5034](#).

NOTE 2—For determination of the breaking force and elongation of some specific types of fabrics which use the strip test, refer to Specifications [D579](#) and [D580](#).

1.3 This test method shows the values in both inch-pound units and SI units. Inch-pound units is the technically correct name for the customary units used in the United States. SI units is the technically correct name for the system of metric units known as the International System of Units. The values stated in either acceptable metric units or in other units shall be regarded separately as standard. The values expressed in each system may not be exact equivalents; therefore, each system must be used independently of the other, without combining in any way.

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 standard-*

ization 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

[D76](#) Specification for Tensile Testing Machines for Textiles

[D123](#) Terminology Relating to Textiles

[D579](#) Specification for Greige Woven Glass Fabrics

[D580](#) Specification for Greige Woven Glass Tapes and Webbing

[D629](#) Test Methods for Quantitative Analysis of Textiles

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

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

[D4849](#) Terminology Related to Yarns and Fibers

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

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

3. Terminology

3.1 For definitions of textile terms used in this test method: breaking force, elongation, tensile test, refer to Terminology [D4848](#).

3.2 For definitions of textile terms used in this test method: constant-rate-of-extension, constant rate of load, constant rate of traverse, refer to Terminology [D4849](#).

3.3 For definitions of textile terms used in this test method: cut strip test, raveled strip test, strip test, refer to Terminology [D4850](#).

3.4 For other textile terms used in this test method, refer to Terminology [D123](#).

¹ This test method 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.