



Standard Test Methods for CONSTRUCTION CHARACTERISTICS OF WOVEN FABRICS¹

This Standard is issued under the fixed designation D 1910; 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.

⁶ NOTE—Editorial changes were made in Section 3 in January 1975.

1. Scope

1.1 These methods cover the determination of a number of properties associated with woven fabric construction including length, width, weight, fabric count, filling bow, filling skewness, fabric crimp, and take-up.

NOTE 1—Standard methods for the identification of fibers in a fabric are given in Methods D 276,² and methods for quantitative analysis are given in Methods D 629.² Methods for the determination of other specific properties of woven fabrics, such as strength, thickness, abrasion, air permeability, flammability, shrinkage, slippage, etc., are described in other ASTM standards. Methods for the evaluation of knit fabrics, nonwoven fabrics, and elastic woven fabrics are also covered in separate ASTM standards.

2. Applicable Documents

2.1 ASTM Standards:

D 123 Definitions of Terms Relating to Textiles³

D 276 Identification of Fibers in Textiles²

D 629 Quantitative Analysis of Textiles²

3. Definitions

3.1 *fabric, woven, n.*—a planar structure produced by interlacing two or more sets of yarns, fibers, rovings, or filaments where the elements pass each other essentially at right angles and one set of elements is parallel to the fabric axis.

3.2 *length, fabric, n.*—The distance from one end of a fabric to the other, measured parallel to the selvage while the fabric is held under zero tension but is free from folds or wrinkles.

3.3 *width, fabric, n.*—the distance from one

selvage to another measured perpendicular to the selvages while the fabric is held under zero tension but is free from folds or wrinkles.

3.4 *bow, filling, n.*—the greatest distance, measured parallel to the selvages, between a filling yarn and a straight line drawn between the points at which this yarn meets the selvages.

3.4.1 Bow may be expressed directly in units of length or as a percentage of the width of the fabric at the point of measurement.

3.5 *skewness, filling, n.*—the distance measured parallel to and along a selvage between the point at which a filling yarn meets this selvage, and a perpendicular to the selvage from the point at which the same filling yarn meets the other selvage.

3.5.1 Skewness may be expressed in units of length or as a percentage of the width of the fabric at the point of measurement.

3.6 *count, fabric, n.*—the number (counted units) of warp yarns (ends) and filling yarns (picks) per inch.

3.7 *weight, fabric, n.*—mass per unit area expressed in ounces per square yard (grams per square meter), ounces per linear yard (grams per linear meter), or inversely as linear yards per pound (meter per kilogram).

¹ These methods are under the jurisdiction of ASTM Committee D-13 on Textiles, and are the direct responsibility of Subcommittee D13.59 on Fabric Test Methods, General.

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² Annual Book of ASTM Standards, Part 33.

³ Annual Book of ASTM Standards, Parts 32 and 33.