



Standard Test Methods for Backing Fabric Characteristics of Pile Yarn Floor Coverings¹

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1. Scope

1.1 These test methods cover the procedures listed as follows for testing woven, knitted and nonwoven backing fabrics designed for use in the manufacture of pile yarn floor coverings. The procedures appear in the following order:

	Section
Bow and Skewness of Woven Fabrics	8
Breaking Force of Woven and Nonwoven Fabrics	15
Breaking Force After Tufting of Woven and Nonwoven Fabrics	16
Extractable Matter	9
Fabric Count of Woven Fabrics	12
Fabric Count of Knitted Fabrics	13
Length of Woven Fabrics	11
Mass per Unit Area (Weight) of Woven Fabrics	14
Shrinkage—Hot Wet Method	17
Shrinkage—Hot Dry Method	18
Width of Woven Fabrics	10

1.2 The values stated in SI units are to be regarded as standard. The values in inch-pound units are provided as information only and are not exact equivalents. In case of referee decisions, the SI units will prevail.

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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

- D 123 Terminology Relating to Textiles²
- D 1776 Practice for Conditioning Textiles for Testing³
- D 2257 Test Method for Extractable Matter in Textiles²
- D 3773 Test Methods for Length of Woven Fabric⁴
- D 3774 Test Methods for Width of Woven Fabrics⁴
- D 3775 Test Method for Fabric Count of Woven Fabric⁴
- D 3776 Test Methods for Mass per Unit Area (Weight) of Woven Fabric⁴
- D 3882 Test Method for Bow and Skewness in Woven and Knitted Fabrics⁴
- D 3887 Tolerances for Knitted Fabrics⁴

¹ These test methods are under the jurisdiction of ASTM Committee D-13 on Textiles and are the direct responsibility of Subcommittee D13.21 on Pile Yarn Floor Covering.

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² Annual Book of ASTM Standards, Vol 07.02.

³ Annual Book of ASTM Standards, Vol 07.01.

D 5034 Test Methods for Breaking Force and Elongation of Textile Fabrics (Grab Test)⁴

D 5684 Terminology Relating to Pile Yarn Floor Covering⁴

3. Terminology

3.1 For definitions of terms used in these test methods, refer to Terminologies D 123 and D 5684.

4. Summary of Test Methods, General

4.1 A summary of the directions prescribed for the determination of specific properties is stated in the appropriate sections of specific test methods.

5. Significance and Use

5.1 These test methods may be used for acceptance testing of commercial shipments; however, caution is advised since information about between interlaboratory precision is incomplete. Comparative tests as directed in 5.1.1 may be advisable.

5.1.1 In a case of a dispute from differences in reported test results when using these test methods for acceptance testing of commercial shipments, the purchaser and the supplier should conduct comparative tests to determine if there is a statistical bias between their laboratories. Competent statistical assistance is recommended for the investigation of bias. As a minimum, the two parties should take a group of test specimens that are as homogenous as possible and that are from a lot of material of the type in question. Test specimens then should be randomly assigned in equal numbers to each laboratory for testing. The average results from the two laboratories should be compared using the appropriate Students *t*-test and an acceptable probability level chosen by the two parties before testing is begun. If a bias is found, either its cause must be found and corrected, or the purchaser and the supplier must agree to interpret future test results with consideration to the known bias.

5.2 These test methods are useful to evaluate quality and cost control during the manufacture of pile yarn floor covering.

5.3 The significance and uses of particular properties and test methods are discussed in the appropriate sections of the specified test methods.

6. Sampling

6.1 *Lot Sample*—As a lot sample for acceptance testing, take at random the number of rolls or pieces, as directed in an applicable material specification or other agreement between the purchaser and the supplier. Consider the rolls or pieces of