



# Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials<sup>1</sup>

This standard is issued under the fixed designation D 2859; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This test method covers the determination of the flammability of finished textile floor covering materials when exposed to an ignition source under controlled laboratory conditions. It is applicable to all types of textile floor coverings regardless of the method of fabrication or whether they are made from natural or man-made fibers. Although this test method may be applied to unfinished material, such a test is not considered satisfactory for the evaluation of a textile floor covering material for ultimate consumer use.

1.2 *This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.*

NOTE 1—For other standards on flammability of textiles, refer to: Test Methods D 1230 and D 3411. For methods of measuring other properties of floor coverings and components thereof, refer to: Test Methods D 418, D 1116, D 1335, D 2401, and D 2406.

## 2. Referenced Documents

### 2.1 ASTM Standards:

- D 123 Terminology Relating to Textiles Materials<sup>2</sup>
- D 418 Methods of Testing Pile Yarn Floor Covering Construction<sup>2</sup>
- D 1116 Test Method for Resistance of Pile Floor Coverings to Attack by Black Carpet Beetle Larvae<sup>3</sup>
- D 1230 Test Method for Flammability of Apparel Textiles<sup>2</sup>
- D 1335 Test Method for Tuft Bind of Pile Floor Coverings<sup>4</sup>
- D 1776 Practice for Conditioning Textiles for Testing<sup>2</sup>
- D 2401 Test Method for Service Change of Appearance of Pile Floor Coverings<sup>5</sup>

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee D-13 on Textiles and is direct responsibility of Subcommittee D 13.21 on Pile Floor Coverings.

Current edition approved Feb. 10, 1996. Published April 1996. Originally published as D 2859 – 70 T. Last previous edition D 2859 – 93a.

<sup>2</sup> *Annual Book of ASTM Standards*, Vol 07.01.

<sup>3</sup> Discontinued, see 1979 *Annual Book of ASTM Standards*, Part 22.

<sup>4</sup> Discontinued, see 1994 *Annual Book of ASTM Standards*, Vol 07.01.

<sup>5</sup> Discontinued, see 1991 *Annual Book of ASTM Standards*, Vol 07.01.

D 2646 Test Methods for Backing Fabrics<sup>2</sup>

D 3411 Test Method for Flammability of Textile Materials<sup>6</sup>

### 2.2 AATCC Standard:

Method 138-1972, Shampooing: Washing of Textile Floor Coverings<sup>7</sup>

## 3. Terminology

### 3.1 Definitions:

3.1.1 *finished*, *adj*—in textile floor covering materials, the completion of all manufacturing operations.

3.1.2 *flame retardant*, *n*—a chemical used to impart flame resistance.

3.1.3 *flame-retardant treatment*, *n*—a process for incorporating or adding flame retardant(s) to a material or product.

3.1.3.1 *Discussion*—The term “flame-retardant treatment” does not apply to textiles that are inherently-flame-resistant due to the intrinsic properties of the material or the fiber-forming polymer.

3.1.4 *flame resistance*, *n*—the property of a material whereby flaming combustion is prevented, terminated, or inhibited following application of a flaming or nonflaming source of ignition, with or without subsequent removal of the ignition source.

3.1.4.1 *Discussion*—Flame resistance can be an inherent property of the basic material or product, or it may be imparted by specific treatment. The degree of flame resistance exhibited by a specific material during testing may vary with different test conditions.

3.2 For definitions of other textile terms used in this method, refer to Terminology D 123.

## 4. Summary of Test Method

4.1 This test method involves the exposure of conditioned and oven-dried specimens to a standard source of ignition in a draft-protected environment and the measurement of the resulting char length.

## 5. Significance and Use

5.1 This test method provides a procedure for identification of those finished textile floor covering materials that can be

<sup>6</sup> Discontinued, see 1980 *Annual Book of ASTM Standards*, Part 32.

<sup>7</sup> Technical Manual of the American Association of Textile Chemists and Colorists, P. O. Box 12215, Research Triangle Park, NC 27709.