



Designation: D1230 – 22a

## Standard Test Method for Flammability of Apparel Textiles<sup>1</sup>

This standard is issued under the fixed designation D1230; 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 evaluation of the flammability of textile fabrics as they reach the consumer for apparel. This test method sets forth a classification system for apparel textiles and identifies textiles which have burning characteristics that make them unsuitable for use in clothing, by using as the ignition source a 26-gauge hypodermic needle.

1.1.1 This test method shall be used for the flammability of specific categories of tight fitting children's sleepwear in accordance with 16 CFR 1615 and 16 CFR 1616 which are accessed by the test procedure in 16 CFR 1610 (or ASTM D1230 equivalent).

1.1.2 This test method shall not be used for the evaluation of the flammability of textiles used in children's sleepwear, to which 16 CFR 1615 and 16 CFR 1616 apply. These items are addressed in Test Method **D6545**.

1.1.3 This test method shall not be used for the evaluation of the flammability of decorative fabrics or of textiles not intended for use as apparel. Suitable test methods for such applications include Test Method **D6413/D6413M** or NFPA 701.

1.1.4 This test method shall not be used for the evaluation of the flammability of protective clothing, such as those worn by individuals in the fire service or in other occupations where exposure to heat, flame, or electric arc is likely. Suitable test methods for such applications have been developed by ASTM Committee F23, on Personal Protective Clothing and Equipment.

1.2 This test method is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire hazard or fire risk assessment of the materials, products, or assemblies under actual fire conditions.

1.3 Fire testing is inherently hazardous. Adequate safeguards for personnel and property shall be employed in conducting these tests.

NOTE 1—This test method is not identical to 16 CFR Part 1610,

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee **D13** on Textiles and is the direct responsibility of Subcommittee **D13.52** on Flammability.

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Flammability of Clothing Textiles. Consumer Product Safety Commission regulations require that clothing fabrics introduced into commerce meet the requirements of 16 CFR Part 1610.

1.4 The values stated in SI units are to be regarded as standard. The values given in parentheses after SI units are provided for information only and are not considered standard.

1.5 *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.*

1.6 *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:<sup>2</sup>

**D123** Terminology Relating to Textiles  
**D3136** Terminology Relating to Care Labeling for Apparel, Textile, Home Furnishing, and Leather Products  
**D4391** Terminology Relating to The Burning Behavior of Textiles  
**D6413/D6413M** Test Method for Flame Resistance of Textiles (Vertical Test)  
**D6545** Test Method for Flammability of Textiles Used in Children's Sleepwear  
**E176** Terminology of Fire Standards

#### 2.2 AATCC Test Method:<sup>3</sup>

**AATCC Manual** of International Test Methods and Procedures  
**LP 1** Home Laundering: Machine Washing  
**M11** Glossary of AATCC Standard Terminology

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Research Triangle Park, NC 27709-2215, <http://www.aatcc.org>.