



Standard Test Method for Flammability of Textiles Used in Children's Sleepwear¹

This standard is issued under the fixed designation D 6545; 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.

1. Scope

1.1 This test method evaluates the relative flammability of textiles and garments intended for use in children's sleepwear. The procedures of this test method follow testing and laundering procedures used to evaluate the flammability of children's sleepwear contained in US Federal Regulations 16 CFR 1615 and 1616.²

1.2 A textile used in children's sleepwear must be tested in its original state and after 50 laundering and drying cycles to assess the flame resistance of the textile relative to its use life.

1.3 The values stated in SI units are to be regarded as the standard; inch-pound units are provided for information only.

1.4 *This test method 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, the test results may be used as elements of a fire-risk assessment, which takes into account all of the factors, which are pertinent factors to the potential fire hazard of a particular end use.*

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 and health practices and determines the applicability of regulatory limitations prior to use.* Specific precautionary information is found in 8.5 and 9.5.

2. Referenced Documents

2.1 ASTM Standards:

D 123 Terminology Relating to Textiles³

2.2 AATCC Test Method

Glossary of AATCC Standard Terminology⁴

AATCC Test Method 124 - 1969 Appearance of Durable Press Fabrics After Repeated Home Laundering⁴

2.3 Federal Standards and Regulations:

16 CFR Part 1610 Standard for the Flammability of Vinyl Plastic Film⁵

16 CFR Part 1611 Standard for the Flammability of Clothing Textiles⁵

16 CFR Part 1615 Standard for the Flammability of Children's Sleepwear: Sizes 0 through 6X⁵

16 CFR Part 1616 Standard for the Flammability of Children's Sleepwear: Sizes 7 through 14⁵

Department of Commerce Voluntary Product Standard, previously identified as Commercial Standard, CS 151-50 "Body Measurements for the Sizing of Apparel for Infants, Babies, Toddlers, and Children"⁶

3. Terminology

3.1 Definitions:

3.1.1 *char length, n*—the distance from the original lower edge of the specimen exposed to the flame to the end of the tear or void in the charred, burned, or damaged area.

3.1.2 *children's sleepwear, n*—any product of wearing apparel such as nightgowns, pajamas, or similar or related items, such as robes, intended to be worn primarily for sleeping or activities related to sleeping.

3.1.2.1 *Discussion*—While children's sleepwear can include a range of configurations, these do not include diapers and underwear, infant garments, and tight-fitting garments, as defined by 16 CFR 1615 and 1616. The size range of these garments is limited to those defined in 16 CFR 1615 and 1616 and the Department of Commerce/Commercial Standard 151-50 reference provides background information on how these size ranges were selected and how the body measurements were conducted.

3.1.3 *fabric piece (piece), n*—a continuous, unseamed length of fabric, one or more of which make up a fabric production unit.

3.1.4 *fabric production unit (unit), n*—any quantity of finished fabric pieces which have a specific identify that remains unchanged except for color or print pattern.

3.1.4.1 *Discussion*—This fabric production unit, as specified in 16 CFR 1615, and 1616 can consist of quantities from 5 000 linear yards for normal sampling or up to 10 000 linear yards for reduced sampling. Finished fabrics are those fabric

¹ This test method is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.52 on Flammability.

Current edition approved Nov. 10, 2000. Published November 2000.

² This test method is not identical to 16 CFR Parts 1615 and 1616 and should not be used in place of the CPSC standards.

³ *Annual Book of ASTM Standards*, Vol 07.01.

⁴ Available from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709. Reference from the 1970 edition of the manual.

⁵ Available from U.S. Government Printing Office, Superintendent of Documents, Mail Stop SSOP, Washington, DC 20402-9328.

⁶ Available from the National Technical Information Service, 5285 Port Royal Street, Springfield, VA 22151, order CS 15150.