



Designation: D 2057 – 01

## Standard Test Method for Colorfastness of Zippers to Laundering<sup>1</sup>

This standard is issued under the fixed designation D 2057; 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 approval. 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 alteration in shade and of staining under conditions similar to that experienced in domestic washing of zipper stringers. This test method is applicable to the textile portion of zipper stringers that utilize tapes made of cotton, linen, or manufactured organic fibers, and to combinations thereof.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as the standard. Within the text, the inch-pound units are shown in parentheses. The values stated in each system are not exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with this test method.

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 Textiles<sup>2</sup>
- D 2050 Terminology Relating to Zippers<sup>2</sup>
- D 2051 Test Method for Durability of Finish of Zippers to Laundering<sup>2</sup>
- D 2052 Test Method for Colorfastness of Zippers to Drycleaning<sup>2</sup>
- D 2053 Test Method for Colorfastness of Zippers to Light<sup>2</sup>
- D 2054 Test Method for Colorfastness of Zipper Tapes to Crocking<sup>2</sup>
- D 2058 Test Method for Durability of Finish of Zippers to Drycleaning<sup>2</sup>
- D 2059 Test Method for Resistance of Zippers to Salt Spray (Fog)<sup>2</sup>
- D 2060 Test Methods for Measuring Zipper Dimensions<sup>2</sup>
- D 2061 Test Methods for Strength Test for Zippers<sup>2</sup>
- D 2062 Test Methods for Operability of Zippers<sup>2</sup>

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee D13 on Textiles; and is the direct responsibility of Subcommittee D13.54 on Subassemblies. The method was developed in cooperation with the Slide Fastener Association, Inc.

Current edition approved Dec. 10, 2001. Published March 2002. Originally published as D2057 – 61 T. Last previous edition D2057 – 96.

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

D 3692 Practice for Selection of Zippers for Care-Labeled Apparel and Household Furnishings<sup>3</sup>

#### 2.2 AATCC Methods:

- Method 143 Appearance of Apparel and Other Textile End Products after Repeated Home Launderings<sup>4</sup>
- Evaluation Procedure 1, AATCC Gray Scale for Color Change<sup>4</sup>
- Evaluation Procedure 3, AATCC Chromatic Transference Scale<sup>4</sup>

### 3. Terminology

#### 3.1 Definitions:

3.1.1 For definitions of zipper terms used in this standard, refer to Terminology D 2050. For definitions of other textile terminology used in this standard, refer to Terminology D 123.

### 4. Summary of Test Method

4.1 Specimens in contact with a multifiber test cloth are laundered in home laundry and drying equipment, with or without bleach, under appropriate temperature conditions to produce the effect of home laundering on zipper color. The alteration in shade and the degree of staining of the multifiber test cloth are graded by reference to the AATCC Gray Scale or to the AATCC Chromatic Transference Scale, as appropriate.

### 5. Significance and Use

5.1 Test Method D 2057 is useful for testing to determine if the degree of alteration in shade is satisfactory for the intended end-use and for determining if unacceptable staining of color into adjacent fabric will occur.

NOTE 1—For guidance in evaluating the results of this method, refer to Practice D 3692.

5.2 This test method is considered satisfactory for acceptance testing of commercial shipments because the method has been used extensively in the trade for acceptance testing.

5.2.1 If there are differences of practical significance between reported test results for two laboratories (or more), comparative tests should be performed to determine if there is a statistical bias between them, using competent statistical assistance. As a minimum, the test samples should be used that

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 07.02.

<sup>4</sup> Technical Manual of the American Association of Textile Chemists and Colorists, P. O. Box 12215, Research Triangle Park, NC 27709.