



Standard Test Method for Colorfastness of Zippers to Laundering¹

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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

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 *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 2050 Terminology Relating to Zippers²
- D 2051 Test Method for Durability of Finish of Zippers to Laundering²
- D 2052 Test Method for Colorfastness of Zippers to Dry-cleaning²
- D 2053 Test Method for Colorfastness of Zippers to Light²
- D 2054 Test Method for Colorfastness of Zipper Tapes to Crocking²
- D 2058 Test Method for Durability of Finish of Zippers to Drycleaning²
- D 2059 Test Method for Resistance of Zippers to Salt Spray (Fog)²
- D 2060 Test Methods for Measuring Zipper Dimensions²
- D 2061 Test Methods for Strength Test for Zippers²
- D 2062 Test Methods for Operability of Zippers²
- D 3692 Practice for Selection of Zippers for Care-Labeled Apparel and Household Furnishings³

2.2 AATCC Methods:

Method 143 Appearance of Apparel and Other Textile End Products after Repeated Home Launderings⁴

¹ This test method is under the jurisdiction of ASTM Committee D-13 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 Aug. 10, 1996. Published September 1996. Originally published as D2057 – 61 T. Last previous edition D2057 – 90.

² *Annual Book of ASTM Standards*, Vol 07.01.

³ *Annual Book of ASTM Standards*, Vol 07.02.

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

Evaluation Procedure 1, AATCC Gray Scale for Color Change⁴

Evaluation Procedure 3, AATCC Chromatic Transference Scale⁴

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 This test method 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 since the method has been used extensively in the trade for acceptance testing.

5.2.1 In case of a dispute arising from differences in reported test results when using Test Method D 2057 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 homogeneous as possible and that are from a lot of material of the type in question. The test specimens should then be randomly assigned in equal numbers to each laboratory for testing. The average results from the two laboratories should be compared using a student's *t*-test for unpaired data and an acceptable probability level chosen by the two parties before the testing is begun. If a bias is found, either