



Designation: D 2054 – 99

## Standard Test Method for Colorfastness of Zipper Tapes to Crocking<sup>1</sup>

This standard is issued under the fixed designation D 2054; 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 degree of color that may be transferred from the textile tape of zippers of all fibers to other surfaces by rubbing under wet or dry conditions, or both.

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 1776 Practice for Conditioning Textiles for Testing<sup>2</sup>

D 2050 Terminology Relating to Zippers<sup>2</sup>

#### 2.2 AATCC Methods:

Method 8 Colorfastness to Crocking:

AATCC Crockmeter Method<sup>3</sup>

AATCC Chromatic Transference Scale<sup>3</sup>

### 3. Terminology

3.1 *Definitions*—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.

<sup>1</sup> 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. This test method was developed in cooperation with the Slide Fastener Association, Inc.

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

<sup>3</sup> Technical Manual of the American Association of Textile Chemists and Colorists, P. O. Box 12215, Research Triangle Park, NC 27709.

### 4. Summary of Test Method

4.1 A specimen of the zipper tape fastened to the base of a crockmeter is rubbed with white crock test cloth under controlled conditions. Color transferred to the white test cloth is assessed by a comparison with the AATCC Chromatic Transference Scale.

### 5. Significance and Use

5.1 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.

5.1.1 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 are as homogeneous as possible, that are drawn from the material from which the disparate test results were obtained, and that are randomly assigned in equal numbers to each laboratory for testing. Other materials with established test values may be used for this purpose. The test results from the two laboratories should be compared using a statistical test for unpaired data, at a probability level chosen prior to the testing series. If a bias is found, either its cause must be found and corrected, or future test results must be adjusted in consideration of the known bias.

### 6. Apparatus

6.1 *Apparatus*, as specified in AATCC Test Method 8.

6.2 *Smooth Cardboard Cards*, 50 by 200 mm (2 by 8 in.) approximating index card weight.

### 7. Sampling and Test Specimens

7.1 *Primary Sampling Unit*—Consider individual containers from each shipping carton to be the primary sampling units.

7.2 *Laboratory Sampling Unit*—As a laboratory sampling unit, take at random one zipper from each primary sampling unit.

7.3 *Test Specimens*—Consider the laboratory sample as the test specimen.