



Designation: D 5103 – 9501

Standard Test Method for Length and Length Distribution of ~~Man-Made~~ Manufactured Staple Fibers (Single-Fiber Test)¹

This standard is issued under the fixed designation D 5103; 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 covers the determination of average staple length and staple length distribution of both ~~man-made~~ manufactured and natural fibers by manually measuring single fiber lengths. This test method is also used to measure the length of fibers removed from a staple yarn, but such a measurement may not represent the fiber's staple length, as manufactured.

1.2 Because this test method requires measuring the length of only 50 fibers, it is not suitable for use in determining the number of long fibers that occur infrequently in a sample.

NOTE 1—For determination of average staple length and staple length distribution of ~~man-made fibers by fiber-array method, refer to Test Method D 3660,~~ and for overlength fibers, refer to Test Method D 3513.

NOTE 2—For methods covering the determination of the average length and length distribution of natural fibers, refer to the following methods: for cotton, Test Method D 1440, and Test Method D 1447, for wool, Test Method D 519, Test Method D 1234, and Test Method D 1575.

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:

¹ This test method is under the jurisdiction of ASTM Committee D 13 on Textiles and is the direct responsibility of Subcommittee D13.58 on Yarn and Fiber Test Methods. Current edition approved ~~June 15, 1995; Sept. 10, 2001.~~ Published ~~September 1995; December 2001.~~ Originally published as D 5103 – 90. Last previous edition D 5103 – 95.