



Standard Test Method for Vegetable Matter and Other Alkali-Insoluble Impurities in Scoured Wool¹

This standard is issued under the fixed designation D1113; 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 the content of oven-dried, ash-free, alcohol extractive-free vegetable matter and other alkali-insoluble impurities present in scoured wool. It is also applicable to “related fibers” such as the hair from the goat, camel, alpaca, and other animals.

NOTE 1—The determination of clean wool fiber present on a laboratory scale is covered in Test Method D584, the determination of clean wool fiber present on a commercial scale is covered in Test Method D1334, and the calculation of commercial weight and yield of various commercial compositions (formerly covered in Appendix to Test Method D584) is covered in Practice D2720.

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.* For specific safety hazard statements, see Section 8.

2. Referenced Documents

2.1 ASTM Standards:²

D123 Terminology Relating to Textiles

D584 Test Method for Wool Content of Raw Wool—Laboratory Scale

D1334 Test Method for Wool Content of Raw Wool—Commercial Scale

D2720 Practice for Calculation of Commercial Weight and Yield of Scoured Wool, Top, and Noil for Various Commercial Compositions

D4845 Terminology Relating to Wool

3. Terminology

3.1 For all terminology relating to D13.13, Wool and Wool Felt, refer to Terminology D4845.

¹ This test method is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.13 on Wool and Felt.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

3.1.1 The following terms are relevant to this standard: other alkali-insoluble impurities, oven-dried, vegetable matter base.

3.1.2 For definitions of other textile terms used in this test method, refer to Terminology D123.

4. Summary of Test Method

4.1 The wool, or other animal fiber, is dissolved in a boiling 3% sodium hydroxide solution or a hot 10% sodium hydroxide solution under specified controlled conditions. The weights of the ash-free, oven-dried components of the undissolved residue are converted by means of tabulated factors to the corresponding weights of vegetable matter base and other alkali-insoluble impurities.

5. Significance and Use

5.1 Test Method D1113 is considered satisfactory for acceptance testing of commercial shipments, and the procedure has been used extensively in the trade for this purpose, particularly in connection with the determination of clean wool fiber present by Test Method D584. The procedure in Test Method D1113 is used by the U.S. Customs Service for the determination of the vegetable matter in importations of raw wool on which the allowance for loss of wool during commercial cleaning is based in part.³

5.1.1 In case of a dispute arising from differences in reported test results when using Test Method D1113 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 Students *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

³ *Tariff Schedules of the United States*, Schedule 3, Part 1, Subpart C, Headnote 1 (c).