



Standard Test Method for Wool Content of Raw Wool—Commercial Scale¹

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1. Scope

1.1 This test method covers the determination of the wool base content and the clean wool fiber present in a lot of raw wool by commercial-scale scouring of the lot followed by laboratory tests on samples of the scoured wool.

NOTE 1—The sampling of lots of raw wool in packages is covered in Practice D 1060, and the determination of the wool content of such samples is covered in Test Method D 584. The determination of vegetable matter and other alkali-insoluble impurities in scoured wool is covered in Test Method D 1113. For factors for the conversion of wool base content to its equivalent in terms of scoured wool, top, or noil of various commercially specified compositions, refer to Practice D 2720.

NOTE 2—The values stated in U.S. Customary Units are to be regarded as the standard because of common commercial practice. The S.I. units in parentheses are provided for information only.

NOTE 3—Because of trade practice the term “weight” is used in this test method instead of the technically correct term “mass”.

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 584 Test Method for Wool Content of Raw Wool—Laboratory Scale²
- D 1060 Practice for Core Sampling of Raw Wool in Packages for Determination of Percentage of Clean Wool Fiber Present²
- D 1113 Test Method for Vegetable Matter and Other Alkali-Insoluble Impurities in Scoured Wool²
- D 2720 Practice for Calculation of Commercial Weight and Yield of Scoured Wool, Top, and Noil for Various Commercial Compositions²

3. Terminology

3.1 Definitions:

3.1.1 *clean wool fiber present, n—in raw wool*, the mass of wool base present in the raw wool, adjusted to a moisture

content of 12 %, an alcohol-extractable content of 1.5 %, and a mineral matter content of 0.5 %.

3.1.1.1 *Discussion*—the term “clean wool fiber present” is synonymous with the term “absolute clean content” as defined in the Tariff Schedules of the United States of America. (See Test Method D 584.)

3.1.2 *other alkali-insoluble impurities, n—in scoured wool*, the oven-dried, ash-free, alcohol-extractives-free, alkali-insoluble substances other than vegetable matter base, such as skin, cotton or other fibers, paper, string, tag (dung) pieces, and paint pieces. etc.

3.1.3 *oven-dried, adj*—the condition of a material that has been heated under prescribed conditions of temperature and humidity until there is no further significant change in its mass.

3.1.3.1 *Discussion*—The conditions prescribed in this test method are heating at $105 \pm 2^\circ\text{C}$ in a forced-draft oven supplied with air from an atmosphere having a relative humidity of $65 \pm 2\%$ at a temperature of $20 \pm 2^\circ\text{C}$. A temperature of $20 \pm 2^\circ\text{C}$ is used in this test method instead of $21.1 \pm 1^\circ\text{C}$ because international testing is frequently involved.

3.1.4 *raw wool, n*—wool or hair of the sheep in the grease, pulled or scoured state (see also, scoured wool).

3.1.5 *vegetable matter base, n—in raw wool*, oven-dried scoured burrs, seeds, twigs, leaves, and grasses, free of mineral matter and alcohol-extractable matter.

3.1.6 *vegetable matter present, n—in raw wool*, the weight of vegetable matter base present in the raw wool, adjusted to a moisture content of 12 %, an alcohol-extractives content of 1.5 %, and a mineral matter content of 0.5 %.

3.1.7 *wool base, n*—oven-dried scoured wool free of alcohol-extractable matter, mineral matter, vegetable matter, and all impurities.

3.1.8 For definitions of other textile terms used in this method, refer to Terminology D 123.

4. Summary of Test Method

4.1 The entire lot of raw wool is weighed, prepared, scoured, and dried in the usual commercial equipment, with special precautions against loss of wool at any stage of the operations. The commercially dried scoured wool is weighed, then sampled for laboratory determination of its oven-dried weight (mass) and its content of alcohol-extractable matter, mineral matter, vegetable-matter base, and other alkali-insoluble impurities. The wool base content and the clean wool

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