



Standard Specifications for Fineness of Wool or Mohair and Assignment of Grade¹

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^{ε1} NOTE—The terminology section was updated in July 2012.

1. Scope

1.1 These specifications cover the classification, by fineness grade, of wool or mohair that is in the grease, pulled, washed, or scoured state, or in the form of card sliver.

1.2 These specifications are applicable also to assignment of grade for wool or mohair in spun materials or products processed beyond carding on the woolen system but not on the worsted system which involves a combing process.

NOTE 1—For fineness specifications for wool top, mohair top, and alpaca, refer to Specifications [D3992](#) and [D2252](#).

2. Referenced Documents

2.1 ASTM Standards:²

[D123 Terminology Relating to Textiles](#)

[D2130 Test Method for Diameter of Wool and Other Animal Fibers by Microprojection](#)

[D2252 Specification for Fineness of Types of Alpaca](#)

[D3992 Specifications for Fineness of Wool Top or Mohair Top and Assignment of Grade](#)

[D4845 Terminology Relating to Wool](#)

2.2 Federal Standards:

[Official Standards of the United States for Grades of Wool, Section 31.0](#)³

[Measurement Method for Determining Grade of Wool, Section 31.204](#)³

[Official Standards of the United States for Grades of Grease Mohair, Section 32.1](#)⁴

[Measurement Method for Determining Grade of Grease Mohair, Section 32.204](#)⁴

¹ These specifications are under the jurisdiction of ASTM Committee [D13](#) on Textiles and are the direct responsibility of Subcommittee [D13.13](#) on Wool and Felt. Current edition approved July 1, 2012. Published August 2012. Originally approved in 1981. Last previous edition approved in 2006 as D3991–94 (2006). Replaces D419 and D3109. DOI: 10.1520/D3991-94R12E01.

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 *Federal Register*, Vol 30, No. 161, Aug. 20, 1965, pp 10829–10833.

⁴ *Federal Register*, Vol 36, No. 129, July 3, 1971, pp 12681–12685.

NOTE 2—A discussion on the development of grease mohair standards can be found in the literature.^{5,6}

3. Terminology

3.1 For all terminology related to D13.13, refer to Terminology [D4845](#).

3.1.1 The following terms are relevant to this standard: average fiber diameter, fineness, grade, mohair, wool.

3.2 For all other terminology related to textiles, refer to Terminology [D123](#).

4. Requirements

4.1 The grade of wool shall conform to the requirements of [Table 1](#).

4.2 The grade of mohair shall conform to the requirements of [Table 2](#).

5. Significance and Use

5.1 These specifications are considered satisfactory for classifying wool or mohair by grade and provide a basis for acceptance of commercial shipments.

5.2 Grade determined by visual examination is a common trade practice. In case of doubt or dispute, comparison of the measured average fiber diameter and fiber diameter standard deviation with the respective specification shall be used as the referee procedure for assigning grade.

5.3 This specification is not intended for application to mixed lots, that is, lots of wool or mohair consisting of fleeces of different grades that are to be segregated into smaller more homogeneous lots before use.

6. Test Method

6.1 Test the material as directed in Test Method [D2130](#). Measure at least the minimum number of fibers needed to

⁵ Keller, H. R., Ray, H. D., Lineberry, C. T., and Pohle, E. M., "Fineness Relationship of Grease Mohair, Card Sliver, and Top," *Textile Research Journal*, Vol 42, No. 2, February 1971.

⁶ ASTM Research Report No. D13 – 1012. A copy is available from ASTM Headquarters, 100 Barr Harbor Drive, West Conshohocken, PA 19428.