Designation: D2252 – 05 (Reapproved 2009)

Standard Specification for Fineness of Types of Alpaca[1]

This standard is issued under the fixed designation D2252; 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 specification is applicable in the classification of alpaca into types according to fineness.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

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:*[2]

D123 Terminology Relating to Textiles

D2130 Test Method for Diameter of Wool and Other Animal Fibers by Microprojection

D4845 Terminology Relating to Wool

3. Terminology

3.1 For definitions of textile terms used in this specification: alpaca, average fiber diameter, fineness, refer to Terminology D4845.

3.2 For definitions of other textile terms used in this specification, refer to Terminology D123.

4. Significance and Use

4.1 This specification for fineness is intended as a guide for production, preparation, and marketing (Note 1) by comparing the average fiber diameter of a measured specimen with the fineness specifications for the various types listed in Table 1. The standard deviation which expresses measured variability of a specimen may be compared with the average shown in Table X2.1.

NOTE 1—Test Method D2130 does not include any values for the precision to be expected in the testing of alpaca fibers. In an interlaboratory test in which six laboratories each made one test on each of six type samples, HTB-CB, HAXB-CB, HAAB-CB, HAB-CB, HLPB-CL, and HSKB-CL, the coefficient of variation of the average fiber diameters between laboratories, including test variation, was 3.2, 4.7, 3.8, 4.5, 2.2, and 0.93 % for the respective alpaca types.

5. Specification

5.1 The fineness of various types of alpaca shall conform to the average fiber diameter limits listed in Table 1.

6. Sampling

6.1 Sample the material as directed in Test Method D2130.

7. Test Method

7.1 Test the material as directed in Test Method D2130. Measure at least the minimum number of fibers specified to attain confidence limits of the mean of ±0.5 µm at a probability level of at least 95 % (see Table A1.4 in Annex A1. to Test Method D2130).

8. Keywords

8.1 alpaca; animal fibers (except wool); fineness

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

Current edition approved July 1, 2009. Published August 2009. Originally approved in 1964. Last previous edition approved in 2005 as D2252 – 05. DOI: 10.1520/D2252-05R09.

[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.

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TABLE 1 Fineness Specifications for Types of Alpaca

Type	Average Diameter, μm
T Extra	under 22.00
T	22.00 to 24.99
X	22.00 to 24.99
AA	25.00 to 29.99
A	30.00 to 35.99
SK	over 30.00
LP	over 30.00

APPENDIXES

(Nonmandatory Information)

X1. DESCRIPTION AND FINENESS VARIABILITY OF ALPACA TYPES

X1.1 The following are the trade categories for classification of alpaca for market with explanation of the types and symbols used in the commercial classification system:

X1.1.1 *Variety, Species, Breed, or Strain:*
(Symbol and Description)
H—Huacaya
S—Suri

X1.1.2 *Age:*—
(Symbol and Description)
T—Tui, first shear, 12 months' growth
A—Adult, 12 months' growth

X1.1.3 *Type:*
(Symbol and Description) T—Tui, 12 months' age
TSK—Tui, Skirtings

X1.1.3.1 TSK type alpaca may be expected to range from 24 to 28 μm average fiber diameter.
X—Extra Fine Adult
AA—Medium Adult
A—Coarse
SK—Skirtings
LP—Locks and Pieces

X1.1.4 *Colors:*—
(Symbol and Description)
B—Blanco-White
LF—Light Fawn
C—Castano-Tan
P—Dark and Piebald

X1.1.5 *Staple Length:* (Symbol and Description)
CB—3 in. (76 mm) or over, Combing
CL—Under 3 in. (76 mm), Clothing

X2. FINENESS VARIABILITY OF CERTAIN ALPACA TYPES

X2.1 Typical standard deviations of the fiber diameters of various types of alpaca are listed in Table X2.1 for information only. These are not part of the specifications.

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