



Standard Performance Specification for Feather and Down Fillings for Textile Products¹

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1. Scope

1.1 This performance specification covers requirements for fillings for industry products such as wearing apparel, sleeping bags, and comforters containing down, feathers, down and feather blends, or combinations of the above with other natural or synthetic materials.

1.2 These requirements apply only to the filling material.

2. Referenced Documents

2.1 *ASTM Standards*:²

D123 Terminology Relating to Textiles

D4523 Terminology Relating to Feather-Filled and Down-Filled Products (Withdrawn 2002)³

2.2 *IDFB Testing Regulations (Parts 1-18-F) Version June 2013*:⁴

Part 2 Sampling

Part 3 Composition (Content Analysis)

Part 7 Oxygen Number

Part 10-B Fill Power with Steam Conditioning

Part 11a,b Turbidity

Part 12 Feather and Down Species

2.3 *IABFLO*:⁵

Uniform Law Labels and USA-2000 Standard for Down and Feathers

3. Terminology

3.1 *Definitions*—For the definitions of textile terms used in this standard, refer to Terminology D4523.

¹ This performance specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.61 on Apparel.

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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 The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from the IDFB (International Down and Feather Bureau), Joseph Huter Strasse 31 A-6900 Bregenz, Austria.

⁵ For IABFLO standards, visit the IABFLO website: www.iabflo.org.

4. Specification Requirements

4.1 The properties of feather and down filling materials of textile products shall conform to the specification requirements as set forth by IABFLO (International Association of Bedding and Furniture Law Officials) and the American Down and Feather Section of HFPA (Home Fashion Products Association). See Table 1.

4.2 The wording of claims on the percentage of down present shall not misrepresent the facts directly or indirectly. For example:

4.2.1 A product should not be designated as “100 % Down,” “All Down,” “Pure Down,” or by other terms of similar import unless it in fact contains only down.

4.2.2 A product should not be represented to contain a certain percentage of down unless it in fact contains the stated percentage as set forth in this standard.

4.3 A product shall not be designated by the name of a waterfowl species unless a minimum of 90 % of that waterfowl plumage contained therein is of that species.

4.4 Other claims of down and feathers shall be tested according to the appropriate test method in IDFB Testing Regulations Parts 1 to 18-F. Labeling of such claims shall follow the rules of IABFLO.⁵

4.5 Down and feather filling materials blended with other synthetic and natural fillings shall be tested according to IDFB Testing Regulations, Part 15. Such blended products shall be labeled according to the rules of IABFLO.⁵

5. Significance and Use

5.1 Feather and down filling material intended for this end use should meet all requirements listed in Table 1 of this specification.

5.2 The uses and significance of particular properties and test methods are discussed in the appropriate sections of the specified test methods.

6. Sampling

6.1 Tests shall be performed on the feather and down filling materials as they will reach the consumer.

6.2 Use the number of specimens directed in each of the applicable test methods and IDFB Part 2 Sampling.

TABLE 1 Down-Filled and Feather Filled Products Requirements

Characteristic	Requirements				Section
	Down	Down and Feathers	Feathers and Down	Waterfowl Feathers	
Content Claim:					
Plumage Cleanliness, Minimum Requirement					
Oxygen Number#	10, max.	10, max.	10, max.	10, max.	7.1
Turbidity	300, min	300, min	300, min	300, min	7.1
Plumage Cleanliness, Extra Clean					
Oxygen	4.8, max	4.8, max	4.8, max	4.8, max	7.1
Turbidity	500, min	500, min	500, min	500, min	7.1
Composition of Plumage					7.2
Down Clusters	75 %, min	50 to 74 %, min.	5 to 49 %, min	20 %, max	7.2
Waterfowl Feathers	25 %, max	100 – down %, max	100 - down % , max	80 %, min	
Down Fiber	10 %, max	10 %, max	10 %, max	10 %, max	7.2
Waterfowl Feather Fiber	10 %, max	10 %, max	10 %, max	10 %, max	
Landfowl Feathers and Fibers	2 %, max	5 % of feather portion, max	5 % of feather portion, max	5 %, max	7.2
Damaged and Broken Feathers	2 %, max	7 % of feather portion, max	7 % of feather portion, max	7 %, max	7.2
Residue	2 %, max	2 %, max	2 %, max	2 %, max	7.2
TOTAL	100 %	100 %	100 %	100 %	
Species Designation:	90 %, min	90%, min	90 %, min	90 %, min	7.3

6.2.1 If the number of specimens is not specified, use a number of specimens per unit in the laboratory sample, such that the user may expect at the 95 % probability level that the test result is not more than 5 % of the average above or below the true value for the unit in the laboratory sample.

7. Test Methods

7.1 *Plumage Cleanliness*—Determine the oxygen number and the turbidity of the filling material as directed in the IDFB Testing Regulations Part 7 and Part 11.

7.2 *Composition of Plumage*—Determine the composition of the filling material as directed in IDFB Regulations Part 3. See **Note 1**.

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NOTE 1—The exact percentages of down must be stated on the label for “down,” “down and feather,” and “feather and down” products. The remainder of material is labeled “feathers” for “down and feather” and “feather and down” products, unless other components exceed the maximum allowed. If other components exceed the maximum allowed, they must be labeled separately.

7.3 *Determination of Species*—Determine the species content of the specimen as directed in the IDFB Testing Regulations Part 12.

7.4 *Fill Power*—Determine the Fill Power as directed in the IDFB Testing Regulation Part 10-B.

8. Keywords

8.1 down; feather; jackets; bedding